See *Claim Interpretation/Analysis* section and discussion of claim 1 *supra*, e.g. col. 4, lines 15-38 ("The vehicle bus interface 120 is responsible for replying to requests for parametric data. It is also responsible for continuously monitoring the vehicle bus 104 for any fault reported by the ECUs 103, in terms of diagnostic trouble codes (DTCs). The vehicle bus interface 120 includes the following modules: vehicle bus adapter 120C, fault detector 120B, and diagnostic data service 120A. The fault detector 120B polls the vehicle bus 104 through the vehicle bus adapter 120C checking for fault codes reported by the vehicle ECUs 103. The vehicle bus adapter 120C translates the messages received from the vehicle bus into the language of the fault detector. It also translates messages from the fault detector into the language of the vehicle bus. The fault code specifications and protocols of the vehicle may be Original Equipment Manufacturer (OEM) and model dependent. The term 'vehicle fault codes' is meant to be synonymous with the term 'trouble code' or 'diagnostic trouble code'. A listing of such codes may be found in the publication of the Society of Automotive Engineers, 'SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual'. The diagnostic data service 120A accepts request for vehicle parametric data and retrieves the data using the vehicle bus adapter." (Emphasis added).), col. 5, lines 25-28 ("Similar to the health checkup request, the in-vehicle system collects and uploads a snapshot of vehicle data including any trouble code reported by the ECUs."), col. 6, lines 55-58 ("In such a case, for example, one or more diagnostic trouble codes, generated by the vehicles' ECUs 103, are detected in the vehicle bus interface 120 by the fault detector 120B. These trouble codes are sent to the fault monitor 420 component of the vehicle client computer device 101. The fault monitor may further process these trouble codes and finally sends them to the diagnostic client 421." (Emphasis added).), col.

8, lines col. 9, lines 35-48 ("Then in step 2, the diagnostic client 421 initiates a health checkup session with the diagnostic server 201, and in step 3, the diagnostic server instructs the diagnostic client to gather vehicle data, such as VIN, malfunction codes, and/or a snapshot of the vehicle data. Then in step 4, the diagnostic client 421 requests the data from the diagnostic data service 120A at the vehicle bus interface 120. Then, in step 5, the diagnostic data service interrogates the ECUs 103 via the vehicle bus adapter 120C for the requested data. In step 6, the ECUs 103 provide the requested data and in step 71 the data is returned to the diagnostic client 421. Then, in step 8, the data is in turn transmitted to the diagnostic server 201." (Emphasis added).) and paragraph bridging cols. 9-10.

Therefore, since '499 discloses or obviously suggests fault codes or DTC reported or generated by the at least one vehicle device, '499 discloses or obviously suggests the corresponding at least one vehicle code is for reading from the at least one vehicle device.

Claim 7

The multi-vehicle compatible tracking unit according to claim 1 wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.

See *Claim Interpretation/Analysis* section and discussion of claim 6 *supra.* Since '499 further teaches or obviously suggests the fault codes/DTCs are Original Equipment Manufacturer (OEM) and/or the interface 120 polls or interrogates the ECUS for malfunction or fault codes, '499 discloses or obviously suggest the corresponding at least one vehicle code is for writing to the at least one vehicle device.

Claim 8

The multi-vehicle compatible tracking unit according to claim 1 wherein said downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

See *Claim Interpretation/Analysis* section and discussion of claim 1 *supra,* e.g. '499 at col. 9, lines 28-62 ("Then in step 2, the diagnostic client 421 initiates a health checkup session with the diagnostic server 201, and in step 3, the diagnostic server instructs the diagnostic client to gather vehicle data, such as VIN, malfunction codes, and/or a snapshot of the vehicle data. Then in step 4, the diagnostic client 421 requests the data from the diagnostic data service 120A at the vehicle bus interface 120. Then, in step 5, the diagnostic data service interrogates the ECUs 103 via the vehicle bus adapter 120C for the requested data. In step 6, the ECUs 103 provide the requested data and in step 71 the data is returned to the diagnostic client 421. Then, in step 8, the data is in turn transmitted to the diagnostic server 201." (Emphasis added).), and Figure 5, arrow 3, 9. Note also the paragraph bridging cols. 9-10. Therefore, '499 discloses or obviously suggests the downloading interface, 107/102, receives at least one programming instruction, e.g. data gather instruction, for the controller 300/101.

Claim 11

The multi-vehicle compatible tracking unit according to claim 1 wherein said wireless position determining device comprises a Global Positioning System (GPS) receiver.

See *Claim Interpretation/Analysis* section and discussion of claim 1, preamble and "a vehicle position determining device" limitation, *supra* (e.g. Figure 1, element 317). Therefore

'499 discloses a Global Positioning System (GPS) receiver comprising the vehicle position determining device.

Claim 12

The multi-vehicle compatible tracking unit according to claim 1 further comprising a housing containing said vehicle position determining device, said wireless communications device, said multi-vehicle compatible controller, and said downloading interface.

See '499 at, e.g., elements 10, elements 317 and 101 inside box designated 100 "IN-VEHICLE SYSTEM", Figure 2, col. 2, lines 55-56, col. 3, lines 15-61, Figure 3, element 100 "IN VEHICLE SYSTEM" and col. 4, lines 5-9. Therefore, '499 discloses or obviously suggests a housing, e.g. 10, "IN VEHICLE SYSTEM", containing said vehicle position determining device, said wireless communications device, said multi-vehicle compatible controller, and said downloading interface.

Claim 18

A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible vehicle tracking unit comprising: a vehicle position determining device; a wireless communications device; a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information; said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller; said downloading interface comprising a wireless receiver for temporary connection to a downloading device.

See discussion of claims 1 and 4-5 *supra*.

Claim 19

The multi-vehicle compatible tracking unit according to claim 18 wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.

See discussion of claim 6 *supra*.

Claim 20

The multi-vehicle compatible tracking unit according to claim 18 wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.

See discussion of claim 7 *supra*.

Claim 21

The multi-vehicle compatible tracking unit according to claim 18 wherein said downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

See discussion of claim 8 *supra*.

Claims 9-10 and 22 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,330,499 to Chou et al (hereinafter also referred to as

'499 or Chou) in view of U.S. Patent No. 6,028,537 to Suman et al, (hereinafter also referred to as '537 or Suman).

The patent to Suman includes a/an publication/issue date more than one year prior to the effective filing date of June 3, 2007 of '278, and thus are available as prior art under 35 USC 102(b) and 35 USC 103.

Claim 9

The multi-vehicle compatible tracking unit according to claim 1 further comprising a remote transmitter;

See *Claim Interpretation/Analysis* section and discussion of claims 1 and 8 *supra,* '499 at, e.g., col. 3, lines col. 4, lines 39-42 ("The client computer device 101 performs several functions including communicating to the remote service center 200 by means of the network interface 107 using the cell phone 102."), col. 5, lines 1-3 ("The in-vehicle system establishes a data connection, using a cellular phone 102, with a diagnostic server at the service center 200,…), col. 7, lines 32-40 ("In this case, a data communication link is established through the network interface 320 to the service center 200, and data containing fault codes, DTCs, vehicle parameter values, and vehicle ID information, is sent to the diagnostic server 201. The size of the data stream is estimated to be on the order of 1 kilobyte. Optional information includes a callback number, GPS coordinates, etc. The exchange of information may be repeated more than once before the data link is closed."), col. 9, lines 28-62 ("Referring now to FIG. 5, a health checkup event flow is presented. The numbers of the steps refer to the numbers found in the flow, as shown in FIG. 5…. Then in step 2, the diagnostic client 421 initiates a health checkup

session with the diagnostic server 201, and in step 3, the diagnostic server instructs the diagnostic client to gather vehicle data, such as VIN, malfunction codes, and/or a snapshot of the vehicle data. Then in step 4, the diagnostic client 421 requests the data from the diagnostic data service 120A at the vehicle bus interface 120. Then, in step 5, the diagnostic data service interrogates the ECUs 103 via the vehicle bus adapter 120C for the requested data. In step 6, the ECUs 103 provide the requested data, and in step 7, the data is returned to the diagnostic client 421. Then, in step 8, the data is in turn transmitted to the diagnostic server 201.... The diagnostic server 201 prepares a report and transmits it to the client computer 101.... Thereafter, the data connection is terminated. The above-described health checkup process may be completely automated without intervention or involvement by a person at the remote service center."), Figures and claim 1 ("...a communication system, coupled to said client computer device, for providing remote communication of data including data derived from said monitoring systems of the vehicle; and a remote service center including a vehicle data store, a server computer, a diagnostic engine, and a communicator for communicating the results of analysis of vehicle information to said client computer device via said communication system, ..."). Therefore '499 discloses a remote transmitter, e.g., a communicator of the remote service center. See also the remainder of the discussion of this claim.

and wherein said multi-vehicle compatible controller also performs at least one vehicle remote control function responsive to said remote transmitter.

See discussion of this claim *supra* and, e.g., col. 9, line 63-10, line 11 ("The present invention is not limited to the scenarios and embodiments listed above, but instead may be practiced with a plurality of modifications and extensions. For example, remote health

monitoring and diagnostics shares many features with other automotive applications and services. It may be desirable to bundle the remote health monitoring and diagnostics with other services or to extend it with related application functions. For example, the remote diagnostics service could certainly be offered on top of an Emergency/Mayday service (e.g., 'OnStar'). Other applications and services that can be developed or bundled as extensions of the diagnostics services include: breakdown service, network diary, vehicle user manual update, OEM Callback Services, fleet management, theft prevention, vehicle parameter update/change, remote vehicle access, concierge services, etc."). Therefore at the very least '499 suggests the controller, i.e.in-vehicle client computer device 101 and vehicle bus connected interface 120, performing functions, e.g. requests for diagnostic data, responsive to a remote transmitter and remote health/diagnostic services may be practiced/bundled with other services or extensions such as remote vehicle access. However '537 not only teaches a diagnostic system connected to the vehicle bus for remote diagnostics to be performed on the vehicle but also providing remote control to the vehicles accessories in response to a transmitted control signal from a service center, see, e.g., col. 15, line 52-col. 16, line 15 and Fig. 4. Therefore to employ the multi-vehicle compatible controller responsive to a remote transmitter, e.g. the communicator of the remote service center, in '499, if not already, as known from '537 to in order to provide the desired remote vehicle access, e.g. door unlocking, i.e. at least one vehicle remote control function, would have been obvious to one of ordinary skill in the art. Therefore the prior art obviously teaches said multi-vehicle compatible controller also performing at least one vehicle remote control function responsive to said remote transmitter.

Claim 10

The multi-vehicle compatible tracking unit according to claim 9 wherein the at least one vehicle remote control function comprises at least one of a vehicle security function, a remote keyless entry function, and a remote engine starting function.

See discussion of claim 9 *supra*, e.g. the prior art teaches the at least one vehicle remote control function of remote keyless entry.

Claim 22

The multi-vehicle compatible tracking unit according to claim 18 further comprising a remote transmitter; and wherein said multi-vehicle compatible controller also performs at least one vehicle remote control function responsive to said remote transmitter.

See discussion of claim 9 *supra*.

Claims 2-3 and 13-16 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,330,499 to Chou et al (hereinafter also referred to as '499 or Chou) in view of U.S. Patent No. 5,732,074 to Spaur et al (hereinafter also referred to as '074 or Spaur).

The patent to Spaur includes a/an publication/issue date more than one year prior to the effective filing date of June 3, 2007 of '278, and thus are available as prior art under 35 USC 102(b) and 35 USC 103.

Claim 2

The multi-vehicle compatible tracking unit according to claim 1 wherein said downloading interface comprises a wired signal downloading interface.

See discussion of "**a downloading interface…**" and *Claim Interpretation/Analysis* section *supra*, e.g. Figure 2, elements 320 and 300, col. 2, lines 59-63 ("FIG. 2 is a block diagram providing an exemplary component overview for the in-vehicle hardware. The in-vehicle hardware provides a platform for the client computer device 101 and for the system functions shown in the architectural design in FIG. 3. As shown in FIG. 2, the in-vehicle hardware includes a processor 300 coupled with memory 350, a user interface 310, a network interface 320, a vehicle interface 330, at least one persistent storage device 340, and optional external devices 360."), col. 3, lines 16-32 ("The processor is integrated with a network interface 320 to provide communication capability with the remote service center 200. Preferably, the network interface comprises a removable wireless telephone such as the Motorola i1000+ and a docking facility for the wireless phone integrated with the client computer device. Both voice and data connections can be supported by interfacing the processor 300 and the wireless phone. The telephone integration provides basic communication functions. It establishes a data (e.g. TCP/IP) connection with a remote service center (e.g., remote service center 200). Wireless technologies such as GSM (Global System for Mobile Communications), CDMA (Code Division Multiple Access), TDMA (Time Division Multiple Access), iDEN.TM. (a TDMA-based Motorola technology), and AMPS (Advanced Mobile Phone System) can all be supported. The phone may also be used for wireless voice communications."), col. 3, last paragraph, col. 4, lines 7-9, Figure 3, "NETWORK INTERFACE" 107, and col. 4, lines 39-43. This claim requires the

downloading interface comprising a wired signal downloading interface. While '499 teaches the signal downloading interface 320, 107, 102 coupled to the processor 300 and comprising a docking facility "integrated" with the computer device and a removeable cellular phone, it does specifically teach the interface being "wired". See however '074 at, e.g., Figure 2, elements 80-82, 30 and col, 7, lines 45 et seq and thereby, '177 at, e.g., Figures 4 and 7, abstract, lines 1-5, col. 1, first and third full paragraphs, col. 2, lines 4-16, col. 3, second full paragraph, col. 5, lines 60-62, i.e. a known cellular phone/controller/processor interface which is wired. Therefore it would have been obvious to one of ordinary skill in the art to substitute a wired cellular phone interface, e.g., a connector/cable to removeably attach 102 and 107, for the '499 cellular phone interface, if such is not already "wired", for the predictable result of interconnecting the cellular phone and processor/computer. Therefore the prior art obviously teaches the "downloading interface" comprises a wired signal downloading interface.

Claim 3

The multi-vehicle compatible tracking unit according to claim 2 wherein said wired signal downloading interface comprises a connector for temporary connection to a downloading device.

See *Claim Interpretation/Analysis* section and discussion of claims 1-2 *supra*, e.g., Fig. 3, elements 102 and 107, i.e. cell phone attached to network interface, and col. 3, lines 17-21 and cited portions of '074 and '177. The prior art obviously teaches a connector for temporary connection between 107 and 102 and thereby, the wired signal downloading interface comprising a connector for temporary connection to a downloading device, e.g. an internet, the Internet.

Claim 13

A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible vehicle tracking unit comprising: a vehicle position determining device; a wireless communications device; a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information; said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller; said downloading interface comprising a connector for temporary connection to a downloading device.

See discussion of claims 1-3 *supra*.

Claim 14

The multi-vehicle compatible tracking unit according to claim 13 wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.

See discussion of claim 6 *supra*.

Claim 15

The multi-vehicle compatible tracking unit according to claim 13 wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.

See discussion of claim 7 *supra*.

Claim 16

The multi-vehicle compatible tracking unit according to claim 13 wherein said downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

See discussion of claim 8 *supra*.

Claim 17 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,330,499 to Chou et al (hereinafter also referred to as '499 or Chou) in view of U.S. Patent No. 6,028,537 to Suman et al, (hereinafter also referred to as '537 or Suman) and U.S. Patent No. 5,732,074 to Spaur et al (hereinafter also referred to as '074 or Spaur).

Claim 17

The multi-vehicle compatible tracking unit according to claim 13 further comprising a remote transmitter; and wherein said multi-vehicle compatible controller also performs at least one vehicle remote control function responsive to said remote transmitter.

See discussion of claim 9 *supra*.

Prior Art

It is further noted that the 1994 edition of the SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards submitted as Exhibit G (hereinafter also referred to as 1994 SAE Manual or 94SAE) is the 1994 version of a publication of the Society of Automotive Engineers, "SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual", which includes the Society of Automotive Engineers' vehicle bus standards SAE J1850 - Class B Data Communication Network Interface as referred to by '499. See 94SAE at, e.g., SAE J1850, page 159, sections 4.2-4.2.2 regarding "manufacturer-specific" fault/(DTC) codes specifications and protocols. Similarly the 1997 edition of the SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards submitted as Exhibit H (hereinafter also referred to as 1997 SAE Manual or 97SAE) is the 1997 version of a publication of the Society of Automotive Engineers, "SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual", which includes the Society of Automotive Engineers' vehicle bus standards SAE J1850 - Class B Data Communication Network Interface as referred to by '499.

Conclusion

Extensions of Time

Extensions of time under 37 CFR 1.136(a) will not be permitted in these proceedings because the provisions of 37 CFR 1.136 apply only to "an applicant" and not to parties in a reexamination proceeding. Additionally, 35 U.S.C. 305 requires that reexamination proceedings

"will be conducted with special dispatch" (37 CFR 1.550(a)). Extension of time in *ex parte* reexamination proceedings are provided for in 37 CFR 1.550(c).

Notification of Concurrent Proceedings

The patent owner is reminded of the continuing responsibility under 37 CFR 1.565(a), to apprise the Office of any litigation activity, or other prior or concurrent proceeding, involving Patent No. 8,032,278 throughout the course of this reexamination proceeding. The third party requester is also reminded of the ability to similarly apprise the Office of any such activity or proceeding throughout the course of this reexamination proceeding. See MPEP §§ 2207, 2282 and 2286.

Amendment in Reexamination Proceedings

Patent owner is notified that any proposed amendment to the specification and/or claims in this reexamination proceeding must comply with 37 CFR 1.530(d)-(j), must be formally presented pursuant to 37 CFR 1.52(a) and (b), and must contain any fees required by 37 CFR 1.20(c). See MPEP § 2250(IV) for examples to assist in the preparation of proper proposed amendments in reexamination proceedings.

Submissions

In order to insure full consideration of any amendments, affidavits or declarations or other documents as evidence of patentability, such documents must be submitted in response to the first Office action on the merits (which does not result in a close of prosecution).

Submissions after the second Office action on the merits, which is intended to be a final action, will be governed by the requirements of 37 CFR 1.116, after final rejection and by 37 CFR 41.33 after appeal, which will be strictly enforced.

IDS Submissions

Regarding IDS submissions MPEP 2256 recites the following: "Where patents, publications, and other such items of information are submitted by a party (patent owner or requester) in compliance with the requirements of the rules, the requisite degree of consideration to be given to such information will be normally limited by the degree to which the party filing the information citation has explained the content and relevance of the information." Accordingly, the IDS submissions have been considered by the Examiner only with the scope required by MPEP 2256.

Service of Papers

After filing of a request for *ex parte* reexamination by a third party requester, any document filed by either the patent owner or the third party requester must be served on the other party (or parties where two or more third party requester proceedings are merged) in the reexamination proceeding in the manner provided in 37 CFR 1.248. The document must reflect service or the document may be refused consideration by the Office. See 37 CFR 1.550(f).

Correspondence

All correspondence relating to this ex parte reexamination proceeding should be directed:

By Mail to: Mail Stop *Ex Parte* Reexam
Central Reexamination Unit
Commissioner for Patents
United States Patent & Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

By FAX to: (571) 273-9900
Central Reexamination Unit

By hand: Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Registered users of EFS-Web may alternatively submit such correspondence via the electronic filing system EFS-Web, at https://efs.uspto.gov/efile/myportal/efs-registered. EFS-Web offers the benefit of quick submission to the particular area of the Office that needs to act on the correspondence. Also, EFS-Web submissions are "soft scanned" (i.e., electronically uploaded) directly into the official file for the reexamination proceeding, which offers parties the opportunity to review the content of their submissions after the "soft scanning" process is complete.

Any inquiry concerning this communication should be directed to the Central Reexamination Unit at telephone number 571-272-7705.

Other useful telephone numbers:

Reexamination Practice (571) 272-7703

/Karin M. Reichle/
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Art Unit 3992

Conferees: /J. W./, Primary Examiner, Art Unit 3992

/ALEXANDER KOSOWSKI/
Supervisory Patent Examiner, Art Unit 3992

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	90013851	8032278
	Examiner	Art Unit
	KARIN REICHLE	3992

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner

SEARCH NOTES		
Search Notes	Date	Examiner
Prosecution History set forth on BIB sheet reviewed. Also reviewed 90/013,659 and 90/013741 referred to in the Request.	11/16/2016, updated 3/20/2017	/KR/
Reviewed 90013832	3/20/2017	/KR/

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

UNITED STATES PATENT AND TRADEMARK OFFICE

USPTO Automated Interview Request (AIR)

May 16 2017

This paper requesting to schedule and/or conduct an interview is appropriate because:

This submission is requested to be accepted as an authorization for this interview to communicate via the internet. Recognizing that Internet communications are not secure, I hereby authorize the USPTO to communicate with the undersigned concerning scheduling of the interview via video conference, instant messaging, or electronic mail, and to conduct the interview in accordance with office practice including video conferencing.

Name(s):
JACK ABID

S-signature:
/JACK ABID/

Registration Number:
58237

U.S. Application Number:
90013851

Confirmation Number:
8717

E-mail Address:
JABID@ALLENDYER.COM

Phone Number:
4077965056

Proposed Time of Interview:
5-25-2017 11:00 AM ET

Prefered Interview Type:
Video Conference

I am the applicant or applicant's representative for this application.

Electronic Acknowledgement Receipt

EFS ID:	29257702
Application Number:	90013851
International Application Number:	
Confirmation Number:	8717
Title of Invention:	Vehicle Tracking Unit with Downloadable Codes and Associated Methods
First Named Inventor/Applicant Name:	8032278
Correspondence Address:	CHRISTOPHER F. REGAN, ESQUIRE ALLEN, DYER, DOPPELT, MILBRATH & GILCHRIST, P.A. P. O. BOX 3791 - ORLANDO FL 32802-3791 US 407-841-2330 -
Filer:	Christopher F. Regan/Sherry Leonard
Filer Authorized By:	Christopher F. Regan
Attorney Docket Number:	C13-03896.RE2
Receipt Date:	19-MAY-2017
Filing Date:	28-OCT-2016
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Application Type:	Reexam (Patent Owner)

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Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$200

OMEGA EXHIBIT 2036

RAM confirmation Number	051917INTEFSW12114800
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The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		58106CIP1_REX2_Extension.pdf	288551 39e74e2f0fe14ac3c439481f603c32ab1747d729	yes	6

Multipart Description/PDF files in .zip description

Document Description	Start	End
Reexam Request for Extension of Time	1	5
Reexam Certificate of Service	6	6

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2	Fee Worksheet (SB06)	fee-info.pdf	30443 c1adf8728f77e375069237d4ccba7125baf16810	no	2

Warnings:

Information:

Total Files Size (in bytes):	318994

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Electronic Patent Application Fee Transmittal

Application Number:	90013851
Filing Date:	28-Oct-2016
Title of Invention:	Vehicle Tracking Unit with Downloadable Codes and Associated Methods
First Named Inventor/Applicant Name:	8032278
Filer:	Christopher F. Regan/Sherry Leonard
Attorney Docket Number:	C13-03896.RE2

Filed as Large Entity

Filing Fees for ex parte reexam

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
PETITION FEE- 37 CFR 1.17(G) (GROUP II)	1463	1	200	200
Miscellaneous:				
			Total in USD ($)	**200**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/013,851	10/28/2016	8032278	C13-03896.RE2	8717

7590 05/23/2017

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EXAMINER	
REICHLE, KARIN M	

ART UNIT	PAPER NUMBER
3992	

MAIL DATE	DELIVERY MODE
05/23/2017	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Commissioner for Patents
United States Patents and Trademark Office
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Alexandria, VA 22313-1450
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THIRD PARTY REQUESTER'S CORRESPONDENCE ADDRESS

KPPB LLP
2400 EAST KATELLA AVENUE
SUITE 1050
ANAHEIM, CA 92806

Date: MAY 2 3 2017

EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM

REEXAMINATION CONTROL NO. : 90013851
PATENT NO. : 8032278
ART UNIT : 3993

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified ex parte reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the ex parte reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

Decision on Petition for Extension of Time in Reexamination	Application No.	Applicant(s)	
	90/013,851	8,032,268	
	Examiner	Art Unit	
	Karin Reichle	3992	

1. THIS IS A DECISION ON THE PETITION FILED May 19, 2017.

2. THIS DECISION IS ISSUED PURSUANT TO:
   - A. ☒ 37 CFR 1.550(c) – The time for taking any action by a patent owner in a third party requested *ex parte* reexamination proceeding will be extended only for sufficient cause and for a reasonable time specified.
   - B. ☐ 37 CFR 1.550(c) – The time for taking action by a patent owner in a patent owner requested *ex parte* reexamination proceeding will only be extended for more than two months for sufficient cause and for a reasonable time specified.
   - C. ☐ 37 CFR 1.956 – The time for taking any action by a patent owner in an *inter partes* reexamination proceeding will be extended only for sufficient cause and for a reasonable time specified.

   The petition is before the Central Reexamination Unit for consideration.

3. FORMAL MATTERS

Patent owner requests that the period for responding to the Office action mailed on March 29, 2017 which set a two (2) month period for filing a response thereto, be extended by an additional two (2) weeks.

   - A. Petition fee per 37 CFR §1.17(g)).
     - i. ☐ Petition includes authorization to debit a deposit account.
     - ii. ☒ Petition includes authorization to charge a credit card account.
     - iii. ☐ Other _____.
   - B. ☒ Proper certificate of service was provided. (Not required in reexamination where patent owner is requester.)
   - C. ☒ Petition was timely filed.
   - D. ☒ Petition properly signed.

4. DECISION (See MPEP 2265 and 2665)
   - A. ☒ Granted or ☐ Granted-in-part for **two (2) weeks** because petitioner provided a factual accounting that established sufficient cause. (See 37 CFR 1.550(c) and 37 CFR 1.956).
     - i. ☐ Other/comment: (See attached)
   - B. ☐ Dismissed because:
     - I. ☐ Formal matters (See unchecked box(es) (A, B, C and/or D) in section 4 above).
     - ii. ☐ Petitioner failed to provide a factual accounting of reasonably diligent behavior by all those responsible for preparing a response to the outstanding Office action within the statutory time period.
     - iii. ☐ Petitioner failed to explain why, in spite of the action taken thus far, the requested additional time is needed.
     - iv. ☐ The statements provided fail to establish sufficient cause to warrant extension of the time for taking action (See attached).
     - v. ☐ The petition is moot
     - vi. ☐ Other/comment:

5. CONCLUSION: **The response to the Office action mailed March 29, 2017 is due June 12, 2017.**

6. Telephone inquiries with regard to this decision should be directed to Stephen Stein at 571-272-1544 in the CRU.

/Stephen Stein/
Supervisory Patent Reexamination Specialist
Central Reexamination Unit

UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/013,851	10/28/2016	8032278	C13-03896.RE2	8717

7590 06/06/2017

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EXAMINER
REICHLE, KARIN M

ART UNIT	PAPER NUMBER
3992	

MAIL DATE	DELIVERY MODE
06/06/2017	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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KPPB LLP

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SUITE 1050

ANAHEIM, CA 92806

EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM

REEXAMINATION CONTROL NO. *90/013,851*.

PATENT NO. *8032278*.

ART UNIT *3992*.

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

Karin M. Reichle

Primary Examiner

Art Unit: 3992

Ex Parte Reexamination Interview Summary	**Control No.**	**Patent Under Reexamination**
	90/013,851	8032278
	Examiner	**Art Unit**
	Karin Reichle	3992

All participants (USPTO personnel, patent owner, patent owner's representative):

(1) *Karin Reichle*	(3) *Chris Regan*
(2) *SPRS Woo Choi, Jalatee Worjloh*	(4) *Jack Abid*

Date of Interview: *01 June 2017*

Type: a)☒ Telephonic b)☐ Video Conference
c)☐ Personal (copy given to: 1)☐ patent owner 2)☐ patent owner's representative)

Exhibit shown or demonstration conducted: d)☐ Yes e)☒ No.
If Yes, brief description: _____

Agreement with respect to the claims f)☐ was reached. g)☒ was not reached. h)☐ N/A.
Any other agreement(s) are set forth below under "Description of the general nature of what was agreed to…"

Claim(s) discussed: *1*.

Identification of prior art discussed: *Chou '499*.

Description of the general nature of what was agreed to if an agreement was reached, or any other comments:
The items set forth in the Agenda-copy attached-were discussed. No agreement as to the claims was reached. PO discussed the possibility of filing expert evidence in the form of a 132 declaration.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims patentable, if available, must be attached. Also, where no copy of the amendments that would render the claims patentable is available, a summary thereof must be attached.)

A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION MUST INCLUDE PATENT OWNER'S STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. (See MPEP § 2281). IF A RESPONSE TO THE LAST OFFICE ACTION HAS ALREADY BEEN FILED, THEN PATENT OWNER IS GIVEN **ONE MONTH** FROM THIS INTERVIEW DATE TO PROVIDE THE MANDATORY STATEMENT OF THE SUBSTANCE OF THE INTERVIEW (37 CFR 1.560(b)). THE REQUIREMENT FOR PATENT OWNER'S STATEMENT CAN NOT BE WAIVED. **EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).**

/Karin Reichle/ Primary Examiner, Art Unit 3992		

cc: Requester (if third party requester)

UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA
ORLANDO DIVISION

OMEGA PATENTS, LLC,

Plaintiff,

v. Case No: 6:13-cv-1950-Orl-40DCI

CALAMP CORP.,

Defendant.
_____/

ORDER

This cause is before the Court on the following:

1. Plaintiff's Motion for Entry of Final Judgment, Including Entitlement to Attorneys' Fees, Enhanced Damages, and Entry of a Permanent Injunction (Doc. 148), filed March 9, 2016;
2. Plaintiff's Renewed Motion to Award Prejudgment Interest (Doc. 154) filed March 18, 2016;
3. Defendant's Response in Opposition to Plaintiff's Renewed Motion to Award Prejudgment Interest (Doc. 166), filed April 4, 2016;
4. Defendant's Opposition to Plaintiff's Motion for Entry of Final Judgment, Including Entitlement to Attorneys' Fees, Enhanced Damages, and Entry of a Permanent Injunction (Docs. 169, 170), filed April 11, 2016;
5. Plaintiff's Notice of Filing Declarations (Doc. 187), filed April 28, 2016;
6. Defendant's Notice of Filing Responsive Declarations (Doc. 188), filed April 29, 2016;

7. Defendant's Notice of Supplemental Authority regarding Response in Opposition to Plaintiff's Motion for Entry of Final Judgment (Doc. 192), filed May 17, 2016;
8. Defendant's Notice of Grant of Reexamination of '885 Patent (Doc. 193), filed June 6, 2016;
9. Plaintiff's Notice of Supplemental Authority (Doc. 194), filed June 13, 2016;
10. Defendant's Response to Plaintiff's Notice of Supplemental Authority (Doc. 195), filed June 14, 2016;
11. Plaintiff's Response to Defendant's Notice of Supplemental Authority at Docket Number 192 (Doc. 198), filed July 19, 2016;
12. Defendant's Reply to Plaintiff's Response to Notice of Supplemental Authority (Doc. 199), filed July 22, 2016;
13. Defendant's Notice of Grant of Supplemental Authority (Patent Office Action) (Docs. 200, 201), filed August 30, 2016; and
14. Defendant's Notice of Supplemental Authority (Patent Office Action) (Doc. 202), filed September 19, 2016.

Upon due consideration, and after reviewing the pleadings and the transcript of the trial (Doc. 178–184) and the transcript of the post-trial motion's hearing (Doc. 196), Plaintiff's Motions for Entry of Final Judgement, Enhanced Damages, and Reasonable Attorneys' Fees are granted, and Plaintiff's motions for Permanent Injunction is denied.

I. BACKGROUND

Omega Patents, LLC ("Omega") brought the instant action against CalAmp Corp. ("CalAmp") and contends that CalAmp infringed the claims of U.S. Patent No. 6,346,876

("the '876 Patent")[1], U.S. Patent No. 6,756,885 ("the '885 Patent")[2], U.S. Patent No. 7,671,727 ("the '727 Patent")[3], and U.S. Patent No. 8,032,278 ("the '278 Patent")[4] (collectively, the "patents-in-suit").[5] (Doc. 1). The trial of this matter commenced on February 16, 2016, and concluding on February 24, 2016, (Doc. 178–184), with the jury returning a verdict in favor of Omega in which they found that all of Omega's asserted claims were valid and had been infringed upon by CalAmp's accused devices: the LMU 3000, LMU 3030, LMU 3050, the V-Pod and the V-Pod 2. (Doc. 144, p. 1–6). The jury rejected the Defendant's invalidity contentions and made three findings for Plaintiff on secondary considerations indicating nonobviousness. (*Id.* at pp. 7–9). Finally, the jury found Plaintiff had proven by clear and convincing evidence that CalAmp acted despite an objectively high likelihood that its actions infringed a valid patent and that this high likelihood of infringement was either known or so obvious that it should have been known to CalAmp. (*Id.* at pp. 9–10). The jury awarded damages in the amount of $2,975.200. (*Id.* at p. 10).

Omega contends the Court should award reasonable attorneys' fees pursuant to 35 U.S.C. § 285, enhanced damages pursuant to § 284, and a permanent injunction pursuant to § 283. (Doc. 148). CalAmp opposes the relief requested by Omega. (Doc. 169). The Court held oral argument on the post-trial motions on May 2, 2016. (Doc. 196).

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[1] The jury found infringement of claims 1, 3, 4, 5, 12, 14, and 16. (Doc. 144, p. 2).
[2] The jury found infringement of claims 1, 2, 3, 12, and 14. (*Id.* at p. 3).
[3] The jury found infringement of claims 1, 10, and 11. (*Id.* at p. 4).
[4] The jury found infringement of claims 1–6, 8, 11–16, 18–19, and 21. (*Id.* at pp. 5–6).
[5] The patents-in-suite relate to control systems for vehicles with a "data communication bus." The term "data communication bus" has been previously construed by the Court to mean "wired connection for communication of digital messages among vehicle devises, with each message including one or more device addresses." (Doc. 50, p. 25).

The parties subsequently submitted numerous pleadings consisting of supplemental authority and notices of *ex parte* reexamination by The Patent Office of the '278 patent, the '885 patent, and the '876 patent. (Docs. 198–202).

II. STANDARD

A. Enhanced Damages

When this litigation proceeded to trial, the issue of enhanced damages was governed by the two-step inquiry announced by the Federal Circuit in *In re Seagate Tech., LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007) (*en banc*). Following oral argument on Omega's motion for enhanced damages, the United States Supreme Court decided *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923 (2016). The Court in *Halo* rejects the *Seagate* two-part test for determining when a district court my increase damages pursuant to 35 U.S.C. § 284 as being inconsistent with the plain language of the statute. *Halo*, 136 S. Ct. at 1928. Following a historical exegesis of enhanced damages under the Patent Act, the Court concluded that "although there is 'no precise rule or formula' for awarding damages under § 284, a district court's 'discretion should be exercised in light of the considerations' underlying the grant of that discretion." *Halo,* 136 S. Ct. at 1932 (quoting *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749, 1756 (2014)).

The Court in *Halo* remarked that enhanced damages under patent law "should generally be reserved for egregious cases typified by willful misconduct." *Halo*, 136 S. Ct. at 1934. The Court observed that "[t]he sort of conduct warranting enhanced damages has been variously described in our cases as willful, wanton, malicious, bad-faith, deliberate, consciously wrongful, flagrant, or—indeed—characteristic of a pirate." *Halo,*

136 S. Ct. at 1932. The Court rejected the heightened standard of proof provided for by the Federal Circuit in *Seagate* in favor of a preponderance of the evidence standard. *Halo,* 136 S. Ct. at 1934. The type of culpability that supports an award of enhanced damages is "measured against the knowledge of the actor at the time of the challenged conduct." *Halo,* 136 S. Ct. at 1933.[6] Once a jury determines that an infringer "is guilty of conduct upon which increased damages may be based [,] … the court then determines, exercising its sound discretion, whether, and to what extent, to increase the damages award given the totality of the circumstances." *Jurgens v. CBK, Ltd.*, 80 F.3d 1566, 1570 (Fed. Cir. 1996). While a finding of willful infringement does not mandate the imposition of enhanced damages, once the finding is made "the court must explain its reasons for declining to award enhanced damages." *Carnegie Mellon Univ. v. Marvell Tech. Group, Ltd.*, No. CIV.A. 09-290, 2014 WL 1320154, at *9 (W.D. Pa. Mar. 31, 2014), *rev'd in part on other grounds*, 807 F.3d 1283 (Fed. Cir. 2015).

B. Attorney's Fees

The Supreme Court in *Octane Fitness* rejected the "more rigid and mechanical formulation" for determining when the district court may award reasonable attorney fees to the prevailing party in favor of the plain statutory text of § 285, which provides "[t]he court in exceptional cases may award reasonable attorney fees to the prevailing party." 35 U.S.C. § 285; *Octane Fitness,* 134 S. Ct. at 1755. An exceptional case is "simply one that stands out from others with respect to the substantive strength of a party's litigating

[6] The Court in *Halo* criticized, in pertinent part, the second prong of the *Seagate* test which allowed an infringer to escape enhanced damages by mustering a defense of invalidity or noninfringement at trial "even if [the infringer] did not act on the basis of the defense or was even aware of it." *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923, 1933 (2016).

position (considering both the governing law and the facts of the case) or the unreasonable manner in which the case was litigated." *Octane Fitness*, 134 S. Ct. at 1756. The district court applies the preponderance of the evidence standard and considers the totality of the circumstances. The district court may consider a number of factors in determining whether to award fees, including: (1) whether the infringer deliberately copied the invention; (2) whether the infringer had a good faith basis for believing it did not infringe or that the patent was invalid; (3) the closeness of the case; (4) conduct of the part in litigation; (5) defendant's relative size and financial condition; (6) the duration of the infringement; (7) remedial action by the defendant; (8) defendant's motivation for harm, and (9) whether defendant attempted to conceal its misconduct. *Read Corp. v. Portec, Inc.*, 970 F.2d 816, 827 (Fed. Cir. 1992).[7]

C. Permanent Injunction

The Supreme Court in *eBay Inc. v. MercExchange, L.L.C.*, 126 S. Ct. 1837, 1839 (2006), held that to obtain an injunction a party "must demonstrate: (1) that is has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest wound not be disserved by a permanent injunction." The Federal Circuit subsequently held that *eBay* eliminates a presumption of irreparable injury to the patent holder after a judgment of infringement and of no invalidity is returned. *Robert Bosch LLC v. Pylon Mfg. Corp.*, 659 F.3d 1142, 1149 (Fed. Cir. 2011). Moreover, there must be a

[7] The *Read* factors are equally applicable to the assessment of enhanced damages.

causal nexus between the irreparable injury and the patent infringement. *Apple Inc. v. Samsung Elecs. Co.*, 735 F.3d 1352, 1360 (Fed. Cir. 2013).

III. DISCUSSION

Mr. Flick, the inventor of the four patents at issue, met with representatives of CalAmp, including Mr. Gallin Chen, in 2009 at a trade show to discuss Omega's belief that CalAmp was infringing certain patents. (Doc. 179, 76:10-18). During this initial meeting, Mr. Chen expressed his view that the Omega patents were invalid, but he nonetheless requested a draft license agreement. (*Id.* at 78:1-11). Omega complied and sent CalAmp a license agreement that CalAmp rejected shortly thereafter, resulting in Omega filing suit against CalAmp on December 15, 2009.[8] (*Id.*). Once litigation had commenced, Mr. Chen agreed to meet with Mr. Flick again at a trade show scheduled for January 2010. (*Id.* at 81:14-18). During the ensuing conversation, Mr. Chen represented to Omega that CalAmp did not program their products and any alleged infringement was caused by the end-user who programs the CalAmp devices. (*Id.* at 81:24– 82:13). Based upon this representation Mr. Flick stayed the litigation against CalAmp and sued two end users: Numerex and Sky Patrol. (*Id.*). Numerex quickly settled with Omega and entered into a licensing agreement. (*Id.* at 82:14-23). Sky Patrol, however, revealed that, contrary to Mr. Chen's representation, CalAmp was responsible for programing their offending devices.[9] (*Id.* at 83:11–84:12). CalAmp subsequently settled with Omega and agreed to pay a royalty. (*Id.* at 84:13-21; Pl.'s Ex. 45).

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[8] The lawsuit filed by Omega in 2009 pertained to patents other than those at issue in the instant litigation.

[9] The deposition of CalAmp engineer, Peter Hergesheimer, was played at trial, and Mr. Hergesheimer acknowledged that CalAmp programs LMUs for approximately 75% of their customers, contradicting Mr. Chen's claim that CalAmp sold a black box. Mr.

Against this backdrop, CalAmp introduced the accused devices in late 2011 or early 2012. (Doc. 182, 53:2-5). Prior to introducing the accused products, CalAmp's counsel, Mr. David Bailey, reviewed a number of patents held by the Plaintiff, including the '885 and '727 patents at issue in this litigation. (Pl.'s Ex. 39). At the same time counsel for Omega and for CalAmp engaged in discussions concerning Omega's "extensive patent portfolio" in the area of databus applications.[10] (Pl.'s Ex. 34). It is, therefore, beyond dispute that CalAmp was fully aware of the Omega patents prior to introducing the accused products into the market.

Mr. Chen admitted on cross-examination that the LMUs and V-Pod and V-Pod2 were introduced as a direct result of consumer demand. (Doc. 182, 142:11-24). Mr. Chen explained that the LMUs connect to the vehicle data bus and read data from the bus. (*Id.* at 54:8-14). According to Mr. Chen, the LMU has a transmitter and a receiver, can read data from the vehicle data bus, can query a vehicle device for data, and can store the data received in response to the query. (*Id.* at 129:1-21). The '727 patent held by Omega, for example, claims a speed exceeded notification device for a vehicle comprising a "vehicle data communications bus" and "at least one vehicle device generating data related to vehicle speed on the" bus which determines when a vehicle's speed has exceeded a set threshold. (Joint Ex. 4, column 7, lines 4-17).

In an attempt to distinguish the LMU devices from the '727 patent, Mr. Chen testified that the LMU speed data is derived from the GPS module and not from the vehicle

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Hergesheimer also testified that software is loaded on the LMU online, because that is more cost effective than loading it at the time of manufacture.

[10] CalAmp engineer, Peter Hergesheimer, testified at trial via deposition that he did not design around the Omega patents.

bus.[11] (Doc. 182, 133:13-21). He added that the LMU has the capacity to read speed from the bus, but CalAmp does not allow this because speed data generated from GPS is more accurate. (*Id.*). However, Mr. Jerrery Eidberger, a CalAmp field application engineer, testified via deposition that a substantial percentage of customers do in fact have the LMU programmed by CalAmp to read the speed from the bus. Additionally, CalAmp responded to Omega's Frist Set of Interrogatories, wherein Omega asks CalAmp to "identify all customers for whom CalAmp has loaded scripts for geofencing or speed alerts into an Accused Product" by providing a long list of customers for whom CalAmp has loaded scripts related to speed alerts, noting that "some scripts do not cause a speed exceeded notification." (Pl.'s Ex. 16). CalAmp's acknowledgement that some scripts do not cause a speed exceeded notification means that other scripts do provide the speed exceeded notification from the vehicle bus as opposed to the GPS. Mr. Chen's testimony wherein he flatly denies the LMU reads vehicle speed from the bus is clearly contradicted by CalAmp's interrogatory answers.

Mr. Andrews, CalAmp's retained expert, echoed this misrepresentation when he testified that the CalAmp devices obtain speed data from the internal GPS sensor as opposed to obtaining speed from the bus. (Doc. 182, 248:3-5; 249:1-5). On cross-examination, Mr. Andrews admitted that if the LMU is programmed to read speed from the data bus and make the threshold determination that the speed has been exceeded, the accused device infringes the '727 patent. (Doc. 183, 172:19-22). Either Mr. Andrews ignored CalAmp's answers to Omega's interrogatories in reaching his opinion that the

[11] The '727 patent indicates that it is an object of the invention "to provide a speed exceeded notification device which may be readily used in a vehicle including a data communications bus and related methods." (Joint Ex. 4, column 2, lines 38-40).

accused products do not infringe the '727 patent because speed is derived via GPS, or CalAmp withheld this information from its expert in order to obtain a non-infringement opinion. Either way, the testimony of Mr. Chen and Mr. Andrews provide substantial support for the jury's finding of willful infringement of the '727 patent, and this Court concurs in the jury's finding of willful infringement.

Further indicia of willful infringement by CalAmp is found in an e-mail sent by Mr. Chen to outside patent counsel, Mr. David Bailey[12], and senior vice president for corporate development, Mr. Garo Sarkissian. (Doc. 182, 112:13-19). On July 30, 2013, eight months after Omega instituted this lawsuit, Mr. Chen wrote to Messrs, Bailey, and Sarkissian and asked them to look at the '278 patent. (Pl.'s Ex. 48). Referring to claim 13 of the '278 patent, Mr. Chen wrote: "13 may relate to how we program a unit at the factory so it may be harder to avoid." (*Id.*). The '278 patent has as an object of the invention to "provide a multi-vehicle compatible tracking unit which may be used to control operable vehicle devices, and/or read information therefrom via the vehicle data communications bus." (Joint Ex. 5, column 2, lines 46-49). Clearly, Mr. Chen was concerned as late as July 30, 2013, that the accused devices infringe claim 13 of the '278 patent, as the jury ultimately found. His admission in this e-mail that the units are programed at the CalAmp factory is further evidence that his trial testimony describing the LMU as a black box, programmed by the end-user, was false.

In the same e-mail, Mr. Chen predicts what will ultimately become a defense theory advanced at trial, when he writes: the '727 patent "can be avoided by using GPS speed,

[12] Mr. Bailey is an attorney practicing in the same firm as trial defense counsel. (Doc. 182, 144:20-25).

not vehicle bus received speed, for speeding alerts." (Joint Ex. 5). It is difficult to ascribe a good faith basis for persisting at trial on the theory that the LMU determines speed from the GPS, as opposed to obtaining the data from the bus, when CalAmp's supplemental response to Omega's interrogatory, in which CalAmp admits to loading scripts for speed exceeded notification, was filed March 6, 2015—more two years after Mr. Chen suggested to his counsel and his colleague that using GPS speed will allow CalAmp to avoid the '727 patent. This email is consistent with an attempt to create a plausible defense at trial, perhaps in anticipation of the then-available *Seagate* enhanced damages analysis.[13] That Mr. Chen continued to advance the GPS theory at trial and in view of CalAmp's interrogatory answer demonstrates willful copying of Omega's invention.

In an attempt to satisfy the *Seagate* two-part test at trial, Mr. Chen testified that prior to launching the accused devices, CalAmp investigated the vehicle data bus market. (Doc. 182, 55:21-24). Mr. Sarkissian directed Mr. Chen to search for prior art, resulting in Mr. Chen reviewing over 300 patents. (*Id.* at 57:12–58:2). Mr. Chen also stated that in late 2010, Mr. Sarkissian, Mr. Steven Moran (CalAmp's general counsel), and he had received verbal opinions from Mr. Bailey that the accused products did not infringe existing patents. (*Id.* at 114:7-25; 117:7-12). Mr. Chen stated that he did not request Mr. Bailey to memorialize these oral opinions in writing until after the lawsuit was commenced by Omega. (*Id.* at 145:1-3). The defense marked for identification exhibits 71–74, which are opinion letters written by Mr. Baily as to each patent-in-suit, and each opinion letter is

[13] The Supreme Court in *Halo* disapproved of the *Seagate* test in part because it allowed an infringer to "escape any comeuppance under § 284 solely on the strength of his attorney's ingenuity." *Halo*, 136 S. Ct. at 1933. Hence, opinion letters issued after-the-fact shed little light upon the infringer's culpability which must be "measured against the knowledge of the actor *at the time* of the challenged conduct." *Id.* [emphasis added].

dated June 27, 2014.[14] (Def.'s Exs. 71–74). However, it is curious—assuming Mr. Bailey had vetted the accused products against existing patents back in 2010—that in July 2013 Mr. Chen highlighted the difficulty of avoiding claim 13 of the '278 patent and suggested that the '727 patent can be avoided by focusing upon GPS speed determination. If, in fact, counsel had vetted the accused devices and the Omega patents three years earlier, there is no reason for Mr. Chen to suggest a noninfringement theory to his counsel, nor is there any reason for Mr. Chen to be concerned over claim 13 of the '278 patent. The Court does not find the testimony of Mr. Chen or of Mr. Bailey credible on the issue of whether counsel had rendered legal opinions prior to the launch of the accused products in which he opined the accused products do not offend any patent held by Omega. Mr. Chen's credibility is undermined by other evidence presented at trial[15], and it is incomprehensible that counsel would refrain from issuing a written opinion of noninfringement or invalidity to his client at or near the time that CalAmp launched the accused products. No reasonable explanation for this highly unusual practice was offered by CalAmp or Mr. Bailey.

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[14] The Court sustained Omega's objection to the admissibility of Mr. Bailey's opinion letters on the grounds that the letters—offered during Mr. Chen's testimony—constitute hearsay, and the letters confer expert testimony which was not properly disclosed by the Defense. However, the Court has considered the four opinion letters for purposes of the enhanced damages analysis. The Court is unaware of the substance of the verbal opinions allegedly offered by Mr. Bailey in 2010 prior to the launch of the accused products.

[15] Mr. Chen testified via deposition that he removed information from the CalAmp website regarding the LMU devices to make it more difficult for Omega to identify infringement. (Pl.'s Ex. 48) ("We don't want to make it easy for Omega to build their infringement case by just looking at the datasheets on our website. . . . the bigger hole is LMU 3000; it's launched, mature and broadly integrated by multiple partners. We can bury (i.e. omit) the LMU3030 for now on open website.").

The Court next considers whether this was a "close case" and whether CalAmp held a good faith belief the patents were not infringed or were invalid. CalAmp and their expert, Mr. Andrews, note that the Omega patents require the performance of a control function. (Doc. 182, p. 177:7-15; Doc. 195, p. 3). At trial Mr. Andrews defined "control function" as "a message on the bus that is going to control a device exhibiting a physical change in the device or the system." (Doc. 182, 177:7-15). The notion that control function envisions a physical change is critical to the Defendant's noninfringement arguments. Based upon the Court's review of Mr. Andrew's initial expert report, (Def.'s Ex. 38), this definition of control function does not appear in his original expert report. Mr. Andrews acknowledged on cross-examination that he did not apply the physical change qualifier to control function in his deposition. (Doc. 183, 103:10-14). Mr. Andrews explained that he had misspoken in his deposition when he failed to describe control function as requiring a physical change in the device or the system. (*Id.*). Mr. Andrews did, however, include in his rebuttal report the definition of control function as having the ability to enable a physical change in a device of the system; for example, locking a door, starting the engine, or turning on a light." (Def.'s Ex. 47, pp. 11–12). The crux of the non-infringement defense is that the LMU merely sends a "query for data" and does not control a vehicle device. (Doc. 182, p. 177:20-22). Because the LMU does not control a vehicle device, Mr. Andrews argues the accused products cannot satisfy the multi-vehicle compatible controller claim in the patents. (*Id.* at 238:9-12; 238:25–239:6; 239:14–240:6). Accordingly, Mr. Andrews' definition of control function as mandating a physical change precludes one from finding for Plaintiff Omega.

In order for Mr. Andrews' non-infringement argument to prevail, one must accept his opinion that the LMU is a passive device that uses the bus to request and receive data, but which does not "perform one or more control functions" with respect to the vehicle device. (Def.'s Ex. 47, p. 12; Doc. 182, 240:9-11). The difficulty lies in finding a basis for Mr. Andrews' interpretation of "control function." The Court construed the claim term "controller" to mean "electronic circuitry that performs one or more control functions." (Doc. 50, p. 24). The claim term "multi-vehicle compatible controller" was construed by the Court to mean "electronic circuitry that performs one or more control functions, and can operate with more than one vehicle." (*Id.*). The Court did not construe the term control function. CalAmp urged the Court to construe "function" as "[a]n operation of a vehicle device, such as remote starting the engine, remotely unlocking the vehicle doors, or changing the mode of a security system between armed and disarmed." (*Id.* at 18). But the Court observed: "The patent states the invention may be embodied in many different forms and should not be construed as limited to the illustrated embodiments set forth herein." (*Id.* at 18) (internal quotation marks and citations omitted). Accordingly, Mr. Andrews' interpretation of "control function" is not based upon the Court's claim construction. Similarly, nothing in any specification of the four patents-in-suit support Mr. Andrews' definition of "control function." (Joint Ex. 1-4; Doc. 183, 117:8-11; 118:1-6).

Mr. Andrews acknowledged that the microprocessor in the LMUs and the V-Pods sends a signal along the bus to the ECU and requests a response. (Doc. 183, 114:17–115:6). Omega's counsel engaged Mr. Andrews in the following colloquy:

> Q: Let's say the ECU responds with the device code signal—that would be controlling the ECU, wouldn't it?
>
> A: You're asking it for information. It's providing it back, yes.

Q: So that's a yes?

A: Okay.

(*Id.* at 118:9-24)

Q: And would you also agree with me … that sending a signal and getting a response could be a control function?

A: Yes.

(*Id.* at 120:5-20)

Mr. Andrews admits that when the LMU seeks information from the ECU, the ECU must respond via the bus; however, he contends this is not a control function. (*Id.* at 143:1-6). Mr. Andrews argues that "one with ordinary skill in the art, in the automotive industry in telematics, would understand the difference between a command and a query." (*Id.* at 116:7-10). It is Mr. Andrews' contention that a command—or as he would call it a query—by the LMU that produces a mandatory response by the ECU does not meet the definition of controller and control function. The Defendant's attempt to cast a mandatory response to a query as a passive act that falls short of a control function is unsupported by the record and was conspicuously absent from Mr. Andrews' initial expert report. The emergence of this opinion late in the litigation is highly suspect, particularly when one considers that Mr. Andrews' also opined that the LMU cannot infringe the '727 patent because the LMU only generates speed data from the GPS—which is clearly contradicted by CalAmp's response to Omega's interrogatories.

Mr. Andrews and counsel for CalAmp presented other non-infringement arguments at trial. However, the Court finds that these additional grounds—all of which were rejected by the jury—do not, giving the totality of the circumstances, mitigate against an award of enhanced damages and reasonable attorneys' fees. For example, Mr.

Andrews took issue with whether signals were stored on the accused devices as required by the '885 patent. (Doc. 183, 122:6-9). However, on cross-examination, Mr. Andrews agreed that the LMU sends out signals and the ECU sends a response, "[a]nd those signals are stored on the controller." (*Id.* at 123:7–124:9). Mr. Andrews admits the signals are stored on the LMU until the device is unplugged and re-plugged at which time it starts over. (*Id.* at 125:5-9). In fact, Mr. Andrews agrees the LMU is intended to be used in a manner that would store the CAN data and can be used in multiple vehicles. (*Id.* at 162:6-13).

CalAmp also presented invalidity defenses by identifying prior art that, when considered with SAE standards, rendered the patents obvious. In supplemental filings by the parties, the Court has been made aware that CalAmp sought *ex parte* reexamination of three of the patents-in-issue. The United States Patent and Trademark Office ("USPTO") has reexamined the '278 patent[16], (Doc. 192); the '885 patent[17], (Doc. 193), and the '876 patent[18], (Doc. 201). The USPTO rejected the pertinent claims of these three patents. While the USPTO issued Office Actions in *Ex Parte* Reexamination of the '278, '885, and '876 patents and rejected the relevant claims of these patents, the finding by the USPTO does not have preclusive effect as to the verdict rendered by the jury in the instant litigation unless the final USPTO decision is affirmed by the Federal Circuit before the jury's verdict become final. *Fresenius USA, Inc. v. Baxter Inter., Inc.*, 721 F.3d 1330,

[16] Omega's response, including declarations from Mr. Suman, (Doc. 198-2), whose patent is being considered by the examiner as prior art, and Mr. McAlexander, (Doc. 198-3), demonstrates that the examination of '278 remains in a state of flux. (Doc. 198).
[17] The USPTO rejected every claim of the '885 patent on anticipation and obviousness grounds. (Doc. 202, p. 1).
[18] The USPTO rejected every claim of the '876 patent on anticipation and obviousness grounds. (Doc. 201, p. 2).

1346 (Fed. Cri. 2017). Accordingly, the Court is not bound by the examiner's non-final conclusions when determining whether the jury's verdict is supported by substantial evidence.

The Court recognizes that CalAmp does not suggest in their notices of supplemental authority that the non-final action of the PTO is outcome determinative. Rather, CalAmp cites to the examiner's findings to support the reasonableness of their reliance upon invalidity as a defense. The Court rejects CalAmp's position for a number of reasons. CalAmp's expert, Mr. Andrews, combined certain prior art, such as the Braitberg '497 patent, (Def. Ex. 10), with the Society of Automotive Engineers ("SAE") standard J1978, to predict the Omega '876 patent. (Doc. 182, 173:14–175:23; 178:8-15; 180:22–181:19). Mr. Andrews testified that "one of ordinary skill in the art [would] look to J1978 to determine how to connect the bus." (*Id.* at 184:13–18). However, Mr. Andrews, despite numerous questions posed on cross-examination, failed to articulate the motive for one of ordinary skill in the art to combine these references.[19] The best Mr. Andrews could do in suggesting a motive to combine J1978 with Braitberg is that scan tools were being used at the relevant time; hence, one would know to combine SAE J1978 with Braitberg to make a device multi-vehicle compatible.[20] (Doc. 183, 149:21–150:3). Mr. Andrews applied the Braitberg reference to the '876 and '885 patents, (Doc. 182, p. 198:1-

[19] "A party seeking to invalidate a patent on the basis of obviousness must demonstrate by clear and convincing evidence that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so." *Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1360 (Fed. Cir. 2012) (internal quotation marks omitted).

[20] Mr. Andrews admits that Braitberg does not provide multiple vehicle compatibility, a claim that is necessary to invalidate the Omega patents, so he adds SAE J1978. (Doc. 183, p. 130:6-10). Interestingly, Mr. Chen testified he was unware of J1978.

20), and he applied J1978 to all four patents-in-suit. (*Id.* 250:1–270:19). The motive to combine prior art is critical to CalAmp's invalidity defense, because Mr. Andrews could not find prior art that had all of the claims that Mr. Flick has in his patents. (*Id.* at 132:17–133:7). Mr. Andrews failed to provide more than a conclusory opinion that one of ordinary skill in the art at the relevant time would have known to look to SAE J1978 in combination with the various prior art references. In this regard, Mr. Andrews' fails to assist the Defendant in carrying its burden of proof on invalidity.

In addition, the Court in *Halo* has eliminated the ability of an accused infringer to posit reasonable invalidity defenses which were not relied upon at the time the accused products were introduced into the market. *Halo*, 136 S. Ct. at 1933. Under *Seagate*, "the ability of the infringer to muster a reasonable (even though unsuccessful) defense at the infringement trial" was dispositive of the issue of enhanced damages. *Id.* Post-*Halo*, however, "culpability is generally measured against the knowledge of the actor at the time of the challenged conduct." *Id.* There is no indication in the record that Mr. Andrews provided CalAmp his opinion on invalidity before the accused products went into production in 2011. While the opinion letters issued by Mr. Bailey as to the '885 patent refer to SAE J1978, J1979, (Def.'s Ex. 73), this letter was written in June 2014 long after infringement had begun. Thus, there is no record evidence that CalAmp had knowledge of the invalidity defense derived from the combination of prior art and SAE standards at the time of the challenged conduct.[21] Since culpability is measured against the infringer's

[21] In fact, Mr. Chen filed for patent US 2010/0158211on December 21, 2011, claiming "[s]ystems and methods in accordance with embodiments of the invention continuously collect information from vehicle devices via a vehicle data bus, store information in a database, and retrieve information from the database in response to requests from

knowledge at the time of the challenged conduct, the after-the-fact invalidity defense is of little merit in assessing enhanced damages.[22]

The next *Read* factor directs the Court to consider the Defendant's size and financial condition. According to Omega's expert, Mr. Christian Tregillis, "CalAmp has sold over 245,000 units of the Accused Products, for over $21.5 million from April 2011 through November 2014," (Pl.'s Ex. 65, p. 37), "earning over $4.1 million in gross profits." (Pl.'s Ex. 65, p. 47). CalAmp is a publicly-traded corporation with over $75 million dollars in earnings last year. (Pl.'s Ex. 65). While CalAmp argues that the accused products are low-margin products sold in an extremely competitive market, this misses the point. The overall financial health of the infringer is evaluated—not the net profit generated by the offending conduct—to "ensure that enhanced damages would not prejudice defendant's non-infringing business." *Powell v. Home Depot U.S.A., Inc.*, 715 F. Supp. 2d 1285, 1298 (S.D. Fla. May 28, 2010). The Defendant has the financial wherewithal to endure the sanction of enhanced damages and an award of reasonable attorneys' fees.

A closely related factor for the Court to consider is the duration of CalAmp's conduct. As previously discussed, CalAmp was well aware of Omega's patents since at least 2010. Rather than take a license, and choosing not to design around Omega's patents, CalAmp elected to sell infringing products and continues to do so to this day. CalAmp's motivation to engage in this behavior is obvious: their customers wanted this technology, and CalAmp wanted to provide it. Moreover, as previously discussed,

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remote devices." (Pl.'s Ex. 14, Abstract). The patent issued June 21, 2012, and Mr. Chen did not disclose the prior art relied upon to invalidate Omega's similar patents.

[22] Assuming CalAmp had knowledge of the invalidity defense at the relevant time, the Court would not reach a different conclusion, since the motive to combine the prior art with the SAE standards is deficient.

CalAmp attempted to conceal its infringement by misrepresenting to Omega that it only sold black boxes which were programmed by customers and by removing information from the CalAmp website to make discovery of infringement more difficult. These additional factors all weigh in favor of an award of enhanced damages and reasonable attorneys' fees.

Based upon the foregoing, the Court finds CalAmp willfully infringed the Omega patents-in-suit, further finding that the jury's finding of willful infringement is supported by substantial evidence. The Court independently reviewed the record evidence and finds an award of enhanced damages of threefold the actual damages and an award of reasonable attorneys' fees is supported by the evidence.[23]

The Court turns now to Omega's request for a permanent injunction. Omega quotes Chief Justice Robert's concurring opinion in *eBay* wherein he remarks that from "at least the early 19th century, courts have granted injunctive relief upon a finding of infringement in the vast majority of patent cases." *eBay*, 126 S. Ct. at 1841. However, Justice Thomas speaking for the majority clarified that "the decision whether to grant or deny injunctive relief rests within the equitable discretion of the district courts, and that such discretion must be exercised consistent with traditional principles of equity, in patent disputes no less than in other cases governed by such standards." *Id.* As Justice Kennedy elaborates in his concurrence, "trial courts should bear in mind that in many instances the nature of the patent being enforced and the economic function of the patent holder

[23] The Court notes that even if the PTO's non-final action rejecting the relevant claims of the '885 and '876 patents are affirmed by the Federal Circuit, enhanced damages and reasonable attorneys' fees are appropriate for the willful infringement of the '727 and '278 patents—assuming the '278 patent survives reexamination.

present considerations quite unlike earlier cases." *Id.* at 1842. Justice Kennedy cautions trial courts to use care in issuing permanent injunctions in the context of patent holders who primarily employ their patent to obtain licensing fees. *Id.* "When a patented invention is but a small component of the product the companies seek to produce and the threat of an injunction is employed simply for undue leverage in negotiations, legal damages may well be sufficient to compensate for infringement and an injunction many not serve the public interest." *Id.*

Mr. Flick is a patent holder who presently generates revenue by licensing his patents; he no longer manufactures products. While Omega argues that it has maintained a restrictive licensing program of the patents-in-suit and has selectively licensed only a limited number of entities in the marketplace, (Doc. 148, p. 17), it is equally true that Omega was willing to license its patents to CalAmp. While Mr. Flick testified that Omega requires most licensees to transfer rights of improvements to Omega in order to strengthen its patents, it is clear that Omega does not require every licensee to agree to this term. In fact, the License Agreement entered into between Omega and CalAmp in relation to the products sold to SKYPATROL does not provide for assignment of improvements to Omega. (Pl.'s Ex. 88).

While cognizant of Omega's contention that a compulsory licensing agreement does not make Omega whole, and recognizing the Court need not balance the hardships in cases of willful infringement[24], the Court finds that monetary damages are adequate to compensate Omega for the injury sustained by CalAmp's infringement. Moreover, as

[24] *United States v. Marine Shale Processors*, 81 F.3d 1329, 1358 (5th Cir. 1996); *see also Windsurfing Int'l v. AMF, Inc.*, 782 F.2d 995, 1003 (Fed. Cir. 1986).

indicated by the declaration of Mr. Michael Zachan, CalAmp's Senior Vice President, a number of public safety, local government, and utility providers would be placed at a considerable disadvantage in the execution of their important duties if a permanent injunction issues. The Court agrees with Omega that the logistic and financial turmoil that befalls CalAmp should an injunction be ordered is of their own design. However, the collateral impact upon important public safety functions weighs against a permanent injunction.

For the foregoing reasons, the Court denies Omega's request for a permanent injunction, finding that the payment of customary licensing fees to Omega is adequate to protect the interests of Omega.

IV. CONCLUSION

For the aforementioned reasons, it is **ORDERED AND ADJUDGED** as follows:

1. Plaintiff Omega Patents, LLC's Motion for Entry of Final Judgement (Doc. 148) is **GRANTED**.
2. Plaintiff Omega Patents, LLC's Renewed Motion to Award Prejudgment Interest (Doc. 154) is **GRANTED**.
3. Plaintiff Omega Patents, LLC's Motion for Enhanced Damages (Doc. 148) is **GRANTED** and Plaintiff is awarded treble damages in the amount of eight million, nine hundred and twenty-five thousand and six hundred dollars ($8,925,600).
4. Plaintiff Omega Patents, LLC's Motion for Entitlement to Reasonable Attorneys' Fees (Doc. 148) is **GRANTED**.

5. Plaintiff Omega Patents, LLC's Motion for Entry of a Permanent Injunction (Doc. 148) is **DENIED**.

DONE AND ORDERED in Orlando, Florida, on April 6, 2017.

PAUL G. BYRON
UNITED STATES DISTRICT JUDGE

Copies furnished to:

Counsel of Record
Unrepresented Parties

REEXAMINATION 90/013,851 (8,032,278)
Interview Outline (June 1, 2017)

I. Participants

Examiners:
(1) Karin M. Reichle
(2)
(3)

Patent Owner Attendees:
Chris Regan (34,906)
Jack Abid (58,237)

II. Background

Patent Owner:
Omega Patents LLC – Ken Flick
150+ patents
Omega Research & Development sold to Audiovox

Omega v. Calamp Litigation:
Filed – 12/20/13
Actual trial date: 2/16/16 to 2/24/16 (**Reexamination filed 10/28/16**)
Verdict: all asserted claims valid, infringed, secondary considerations found
Final Order issued 4-5-17, attached (relevant portions highlighted)
Final Judgment issued 4/24/17, also attached (relevant portions highlighted), and finding willful infringement and which includes a calculation for interest, and stipulated attorneys' fees, bringing the final judgment amount to $10,144,286

Calamp's Litigation Expert:
Admitted in depo no anticipation theory for '278 patent

Prior Reexamination on '278 Patent filed by Requester
Reexamination Certificate confirming patentability of all claims issued December 28, 2016.
Current reexamination filed during pendency of the prior reexamination in an attempt to convert the *ex parte* reexamination into an *inter partes* one.

III. The '278 Patent

'278 Patent Background:

A number of patents disclose various security and control systems that address data bus interoperability. For example, U.S. Pat. No. 5,719,551, assigned to Omega Patents, LLC, the assignee of the present invention, discloses a vehicle security system for a vehicle including a data bus connecting a plurality of vehicle devices. A signal enabling circuit enables the alarm controller to operate using a set of desired signals selected from a plurality of possible sets for

different vehicles. U.S. Pat. No. 6,011,460, assigned to Omega Patents, LLC, discloses a similar system where the set of desired signals from the plurality of different sets of signals for different vehicles is obtained, such as by connection and communication with a downloading device. Additionally, U.S. Pat. No. 6,756,885, also assigned to Omega Patents, LLC, discloses a multi-vehicle control system whereby a multi-vehicle compatible controller stores a set of device codes for a given vehicle device for a plurality of different vehicles. Device codes are read from the data communications bus, and a match between a read device code and the stored device codes is determined to provide compatibility with different vehicles. (Col. 2, lines 17-37)

Unfortunately, such advanced techniques for dealing with multiple device codes for a vehicle having a data communications bus have not yet been developed for vehicle tracking units. (Col. 2, lines 38-41).

'278 Patent Detailed Description:

The multi-vehicle compatible controller 111 is coupled to the vehicle data bus 122 for communication thereover with a vehicle device 121. The controller 111 illustratively includes a central processing unit (CPU) 126 or other logic circuitry which is connected to a clock signal generator 124, a memory 125, and input/output circuitry 127 to interface with the vehicle device 121 using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. (Col. 23, lines 59-67).

Further aspects of interfacing with a vehicle data communications bus are described in U.S. Pat. Nos. 5,719,551 and 6,011,460 assigned to the assignee of the present invention, the entire contents of which are incorporated herein by reference. (Col. 22, lines 3-7).

From '551:

> The security system 10 further preferably comprises desired signal enabling means 17 for enabling the alarm controller 10 to operate using a desired set of signals for a desired vehicle from among a plurality of possible sets of signals for different vehicles. As would be readily understood by those skilled in the art, the term different vehicles may include vehicles from different manufacturers, different models, or even different trim levels of the same make and model. (Col. 6, lines 33-43).

'278 Patent Claim 1:

1. A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible tracking unit comprising:

a vehicle position determining device;

a wireless communications device;

a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

IV. Anticipation/Obviousness Rejection over Chou et al.:
Chou et al. fails to disclose or fairly suggest: "said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles".

Rather, the cited portions of Chou et al. recite:

> [t]he vehicle bus interface may support one of vehicle bus standards such as CAN (Controller Area Network) and the Society of Automotive Engineers' SAE 11850- Class B Data Communication Network Interface. Alternatively, the processor supports some or all of the functions of the vehicle bus interface and connects directly to the vehicle bus 335. The vehicle bus shown in FIG. 2 is an inherent part of all new automobiles. (Col. 3, lines 37-44).

> [t]he vehicle bus adapter 120C translates the messages received from the vehicle bus into the language of the fault detector. It also translates messages from the fault detector into the language of the vehicle bus. The fault code specifications and protocols of the vehicle may be Original 30 Equipment Manufacturer (OEM) and model dependent. The term "vehicle fault codes" is meant to be synonymous with the term "trouble code" or "diagnostic trouble code". (Col. 4, lines 25-32).

Although Chou et al. discloses that it can operate with a plurality of different bus types, the skilled person would appreciate that vehicle device codes are propriety to each manufacturer. Indeed, as recognized by Chou et al., "[t]he fault code specifications and protocols of the vehicle may be Original Equipment Manufacturer (OEM) and model dependent." (Col. 4, lines 28-30). As was typical at the time of filing of the present application, these tracking and monitoring devices were programmed to work with the subject vehicle. In other words, the processor of Chou et al. is capable of talking on different types of automobile data buses, but it fails to use at least one corresponding vehicle device code from among a plurality thereof for different vehicles, as recited by independent Claim 1, for example.

Chou et al. fails to disclose or fairly suggest: "a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller".

In the Official Action, the Examiner stated: "such structure permits downloading of enabling data, e.g. instruction to gather data, vehicle parameter update/change, related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller, e.g. steps 2-6 in Figure 5. Thus '499 discloses or obviously suggests "a downloading interface" and such permits downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller." (Official Action, Page 27).

Since Chou et al. fails to disclose or fairly suggest using at least one corresponding vehicle device code from among a plurality thereof for different vehicles, as recited by independent Claim 1, for example, it also fails to disclose or fairly suggest downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller, as also recited by each independent claim.

In the Official Action, the Examiner cited to several portions of Chou et al., but the Examiner contended that the communication link carrying "vehicle parameter values", (Col. 7, line 35), discloses the claimed enabling data. As with the fault codes, the capability to interoperate with vehicle parameter values is predicated on the need to program the processor with software specific to the subject vehicle. Indeed, Chou et al. notes at Col.10, lines 5-10 that the vehicle parameter update/change could be performed as an additional service.

UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA
ORLANDO DIVISION

OMEGA PATENTS, LLC,

Plaintiff,

v. Case No: 6:13-cv-1950-Orl-40DCI

CALAMP CORP.,

Defendant.
_____/

FINAL JUDGMENT

This case was tried to a jury which returned a verdict in favor of plaintiff on February 24, 2016. On April 5, 2017, this Court granted in part and denied in part plaintiff's motion for entry of judgment but did not enter a form of judgment specifying its terms. This Final Judgment reflects the substance of that ruling.

Pursuant to Rule 58 of the Federal Rules of Civil Procedure, in accordance with the jury verdict delivered on February 24, 2016, and this Court's Orders, Final Judgment is hereby entered in favor of Plaintiff, OMEGA PATENTS, LLC, and against CALAMP CORP., as follows:

a. CALAMP CORP. willfully infringed OMEGA PATENTS, LLC's U.S. Patent No. 6,346,876, Claims 1, 3, 4, 5, 12, 14, and 16; U.S. Patent No. 6,756,885, Claims 1, 2, 3, 12, and 14; U.S. Patent No. 7,671,727, Claims 1, 10, and 11; and U.S. Patent No. 8,032,278, Claims 1, 2, 3, 4, 5, 6, 8, 11, 12, 13, 14, 16, 18, 19, and 21 (collectively, the claims of patents-in-suit);

b. The claims of the patents-in-suit have not been proven invalid or unenforceable;

c. The Court finds this to be an exceptional case and the amount of the damages awarded by the jury shall be trebled;

d. OMEGA PATENTS, LLC, shall be entitled to recover its reasonable attorneys' fees; and

e. The Court will not issue an injunction against further infringement.

Accordingly, it is hereby **ORDERED and ADJUDGED**:

1. Defendant CALAMP CORP. shall pay damages to OMEGA PATENTS, LLC, in the amount of $2,975,200.00, which shall be trebled, for a total amount of **$8,925,600.00**;
2. OMEGA PATENTS, LLC, shall be awarded prejudgment interest in the amount of $302.00 *per diem*, from the date of the verdict on February 24, 2016, to entry of this Final Judgment (393 days) for the total amount of **$118,686.00**;
3. By stipulation of the parties, the Court awards Reasonable Attorney's Fees and Costs to OMEGA PATENTS, LLC, in the amount of $**1,100,000.00**. CalAmp Corp. reserves the right to contest the amount of and/or entitlement to fees in the event that this Final Judgment is modified or overturned as a result of CalAmp Corp.'s motions for judgment as a matter of law and for a new trial, or on appeal.
4. The Court reserves jurisdiction to consider an ongoing royalty for any infringing sales after February 24, 2016. If the parties cannot agree on an appropriate procedure, the parties shall submit legal memoranda outlining any requested relief within thirty (30) days.
5. This Final Judgment incorporates all previous orders in the case. CalAmp Corp.'s agreement to the form of this Final Judgment shall not be construed as a waiver

of CalAmp Corp.'s right to appeal, or to file a renewed motion for judgment as a matter of law pursuant to Fed. R. Civ. P. 50 or a motion for new trial pursuant to Fed. R. Civ. P. 59. The time for filing such motions shall run from the date of the entry of this Final Judgment.

6. Plaintiff OMEGA PATENTS, LLC, shall be awarded Final Judgment in its favor, against Defendant CALAMP CORP., in the amount of **$10,144,286.00**.

FOR WHICH SUM, LET EXECUTION ISSUE.

DONE AND ORDERED in Orlando, Florida on April 24, 2017.

PAUL G. BYRON
UNITED STATES DISTRICT JUDGE

Copies furnished to:

Counsel of Record
Unrepresented Parties

In re Patent of
Kenneth E. FLICK
Reexamination Control No. **90/013,851**
Filed: **OCTOBER 28, 2016**
_____/

CERTIFICATE OF SERVICE

Certificate of Service in compliance with 37 C.F.R. §1.530(c)

Pursuant to 37 C.F.R. §§1.530(c), 1.248, I hereby certify that on May 19, 2017, a complete copy of this Request is being served via First Class U.S. Mail upon Third Party Requester at the correspondence address as shown in PAIR:

KPPB LLP
2400 EAST KATELLA AVENUE
SUITE 1050
ANAHEIM, CA 92806

Respectfully submitted,

Sherry Leonard
Sherry Leonard

CERTIFICATE OF SERVICE

Certificate of Service in compliance with 37 C.F.R. § 1.510(b)(5)

Pursuant to 37 C.F.R. § 1.510(b)(5) and 37 C.F.R. § 1.33(c), I hereby certify that on October 28, 2016, a complete copy of this *ex parte* reexamination request, including the accompanying transmittal, FORM PTO/SB/42, and all attachments and exhibits, are being served via First Class U.S. Mail upon Applicant at the correspondence address as shown in PAIR:

Christopher F. Regan
Allen, Dyer, Doppelt, Milbrath & Gilchrist, P.A.
P.O. Box 3791
Orlando FL 32802-3791

In accordance with 37 C.F.R. § 1.510(b)(5), on October 28, 2016.

Respectfully submitted,

By /David H. Kaveh/

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of **KENNETH E. FLICK**	
Request for Reexamination of **U.S. PATENT NO. 8,032,278**	
Control No. **90/013,851**	Attorney Docket No.: **C13-03896.RE2 (58106CIP1_REX2)**
Confirmation No. **8717**	
Filing Date: **OCTOBER 28, 2016**	Examiner: **K. REICHLE**
For: **VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS**	Art Unit: **3992**

PATENT OWNER'S PETITION FOR EXTENSION OF TIME UNDER 37 C.F.R. §1.550(C)

EFILE

Commissioner For Patents

Commissioner:

Pursuant to 37 C.F.R. § 1.550(c), Omega Patents L.L.C. ("Patent Owner") hereby petitions for a two-week extension of time to reply to the Non-Final Office Action, mailed March 29, 2017, in the above-captioned case.

The current deadline with no extension is May 29, 2017, and the requested deadline for response with a two-week extension is June 12, 2017. The present petition is being filed with the petition fee specified under 37 C.F.R. § 1.17(g).

STATEMENT OF FACTS

1. On October 4, 2011, the patent at issue in this reexamination proceeding, U.S. Pat. No. 8,032,278 ('278 Patent), issued with 22 claims (Issued Claims).

2. On October 28, 2016, this reexamination proceeding was initiated by the filing in the United States Patent and Trademark Office of a 888-page Request for Ex Parte Reexamination of the '278 Patent by a third party ("Requester").

3. On December 15, 2016, the Examiner mailed a decision adopting substantial questions of patentability based on three references cited in the Request, and adopting three of the numerous combinations of references alleged in the 888-page request.

4. On March 29, 2017, the Examiner mailed a 48-page Non-Final Office Action, entering non-final rejections of all of the Issued Claims under reexamination, based on stated grounds of 35 U.S.C. § 103 and 35 U.S.C. § 102.

REMARKS

Pursuant to 37 C.F.R. § 1.550(c), Patent Owner hereby requests an extension of the time period for responding to the outstanding Non-Final Office Action.

Because this is the first request for an extension of the time period for responding to the Non-Final Office Action and because this request is not for a period of greater than one month, Patent Owner submits that a showing of an extraordinary situation is not required. (*See* MPEP §2265.) Rather, the request should be granted upon a showing of sufficient cause. (*See* 37 C.F.R. § 1.550; *see also* MPEP 2265).

Patent Owner hereby states the reasons supporting the request, as required by MPEP §2265.

(A) Statement of what action the patent owner has taken to provide a response, to date as of the date of the request for extension of time.

Patent Owner and Patent Owner's Attorneys have diligently worked, and continue to diligently work, to review the Non-Final Office Action and to prepare a response to the same. A factual accounting of Patent Owner's reasonably diligent behavior includes, but is not limited to:

engaging the services of Allen, Dyer, Doppelt & Gilchrist, P.A. in review and analysis of the Non-Final Office Action, and the references relied on therein;

engaging a technical consultant on the reexamination;

contacting the Examiner to schedule an interview;

filing an automated interview request; and

continuous and diligent efforts to prepare a response compliant with 37 C.F.R. § 1.111 in view of the rejections noted in the Non-Final Office Action and the order granting reexamination.

(B) Why, in spite of the action taken thus far, the requested additional time is needed.

Patent Owner submits that, despite reasonably diligent action taken thus far, additional time is needed to prepare a response, above and beyond the current two-month response period.

In particular, Patent Owner has attempted to schedule an interview with the Examiner on May 25, 2017, filing an automated interview request on May 16, 2017. Due to conflicting schedules of Conferees, the telephonic interview was scheduled for June 1, 2017.

Moreover, Patent Owner is coordinating efforts regarding three other Reexaminations related to the earlier judicial proceedings.

Accordingly, Patent Owner asserts that an additional 2-weeks is required to prepare a full and complete response to the issues pending in the present reexamination. In view of the above, it is respectfully submitted that the current circumstances represent sufficient cause under 37 C.F.R. § 1.550 for a two-week extension of time, extending the time period to at least June 12, 2017, for Patent Owner to prepare its response to the pending Non-Final Office Action, and such extension is hereby respectfully requested.

The Commissioner is hereby authorized to charge or credit any discrepancies in fee amounts to Deposit Account No. 01-0484.

Respectfully submitted,

/JACK GEORGE ABID/

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Attorney for the Patent Owner

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of **KENNETH E. FLICK**	)	
	)	
Request for Reexamination of	)	
U.S. PATENT NO. 8,032,278	)	
	)	
Control No. **90/013,851**	)	Attorney Docket No.:
	)	**C13-03895(58106CIP1_REX2)**
Confirmation No. **8717**	)	
	)	Examiner: **K. Reichle**
Filing Date: **OCTOBER 28, 2016**	)	
	)	Art Unit: **3992**
For: **VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS**	)	

RESPONSE TO THE OFFICE ACTION MAILED MARCH 29, 2017 IN EX-PARTE REEXAMINATION

EFILE
Commissioner for Patents

Commissioner:

Responsive to the Official Action of March 29, 2017, and based upon the two-week Extension of Time granted on May 23, 2017, please enter and consider the remarks set out below.

In the Claims:

This listing of claims replaces all prior versions and listings of claims in the application.

1. (Pending) A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible tracking unit comprising:

a vehicle position determining device;

a wireless communications device;

a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

2. (Pending) The multi-vehicle compatible tracking unit according to claim 1 wherein said downloading interface comprises a wired signal downloading interface.

3. (Pending) The multi-vehicle compatible tracking unit according to claim 2 wherein said wired signal downloading

interface comprises a connector for temporary connection to a downloading device.

4. (Pending) The multi-vehicle compatible tracking unit according to claim 1 wherein said downloading interface comprises a wireless signal downloading interface.

5. (Pending) The multi-vehicle compatible tracking unit according to claim 4 wherein said wireless signal downloading interface comprises a wireless receiver for temporary connection to a downloading device.

6. (Pending) The multi-vehicle compatible tracking unit according to claim 1 wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.

7. (Pending) The multi-vehicle compatible tracking unit according to claim 1 wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.

8. (Pending) The multi-vehicle compatible tracking unit according to claim 1 wherein said downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

9. (Pending) The multi-vehicle compatible tracking unit according to claim 1 further comprising a remote transmitter; and wherein said multi-vehicle compatible

controller also performs at least one vehicle remote control function responsive to said remote transmitter.

10. (Pending) The multi-vehicle compatible tracking unit according to claim 9 wherein the at least one vehicle remote control function comprises at least one of a vehicle security function, a remote keyless entry function, and a remote engine starting function.

11. (Pending) The multi-vehicle compatible tracking unit according to claim 1 wherein said wireless position determining device comprises a Global Positioning System (GPS) receiver.

12. (Pending) The multi-vehicle compatible tracking unit according to claim 1 further comprising a housing containing said vehicle position determining device, said wireless communications device, said multi-vehicle compatible controller, and said downloading interface.

13. (Pending) A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible vehicle tracking unit comprising:

a vehicle position determining device;

a wireless communications device;

a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller;

said downloading interface comprising a connector for temporary connection to a downloading device.

14. (Pending) The multi-vehicle compatible tracking unit according to claim 13 wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.

15. (Pending) The multi-vehicle compatible tracking unit according to claim 13 wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.

16. (Pending) The multi-vehicle compatible tracking unit according to claim 13 wherein said downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

17. (Pending) The multi-vehicle compatible tracking unit according to claim 13 further comprising a remote transmitter; and wherein said multi-vehicle compatible

controller also performs at least one vehicle remote control function responsive to said remote transmitter.

18. (Pending) A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible vehicle tracking unit comprising:

a vehicle position determining device;

a wireless communications device;

a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller;

said downloading interface comprising a wireless receiver for temporary connection to a downloading device.

19. (Pending) The multi-vehicle compatible tracking unit according to claim 18 wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.

20. (Pending) The multi-vehicle compatible tracking unit according to claim 18 wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.

21. (Pending) The multi-vehicle compatible tracking unit according to claim 18 wherein said downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

22. (Pending) The multi-vehicle compatible tracking unit according to claim 18 further comprising a remote transmitter; and wherein said multi-vehicle compatible controller also performs at least one vehicle remote control function responsive to said remote transmitter.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of **KENNETH E. FLICK**	)	
	)	
Request for Reexamination of	)	
U.S. PATENT NO. 8,032,278	)	
	)	
Control No. **90/013,851**	)	Attorney Docket No.:
	)	**C13-03895(58106CIP1_REX2)**
Confirmation No. **8717**	)	
	)	Examiner: **K. Reichle**
Filing Date: **OCTOBER 28, 2016**	)	
	)	Art Unit: **3992**
For: **VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS**	)	

INTERVIEW SUMMARY FOR TELEPHONIC INTERVIEW OF JUNE 1, 2017

EFILE
Commissioner for Patents

The Patent Owner thanks the U.S. Patent and Trademark Office and the Examiners for extending all courtesies to the Patent Owner's Representatives during the telephonic interview of June 1, 2017.

During the telephonic interview, Examiner Karin Reichle, Examiner Woo Choi, and Examiner Jalatee Worjloh were present on behalf of the U.S. Patent and Trademark Office, and Attorney Christopher F. Regan (Reg. No. 34,906) and Attorney Jack G. Abid (Reg. No. 58,237) were present on behalf of the Patent Owner.

The Patent Owner discussed the attached agenda with the Examiners. In particular, the Patent Owner discussed the background of the invention, and the problems addressed by the claimed invention.

_____/

The Patent Owner discussed Chou et al. with respect to: "a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller", as recited by independent Claim 1, for example.

The Patent Owner discussed Chou et al. with respect to: "said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles", as recited in independent Claim 1, for example.

Respectfully submitted,

/JACK G. ABID/

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& Gilchrist, P.A.
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Attorney for the Patent Owner

In re Patent of
Kenneth E. FLICK
Reexamination Control No. **90/013,851**
Filed: **OCTOBER 29, 2016**
_____/

CERTIFICATE OF SERVICE

Certificate of Service in compliance with 37 C.F.R. §1.530(c)

Pursuant to 37 C.F.R. §§1.530(c), 1.248, I hereby certify that on June 12, 2017, a complete copy of this Amendment is being served via First Class U.S. Mail upon Third Party Requester at the correspondence address as shown in PAIR:

KPPB LLP
2400 EAST KATELLA AVENUE
SUITE 1050
ANAHEIM, CA 92806

Respectfully submitted,

/JACK G. ABID/

JACK GEORGE ABID
Reg. No. 58,237
Allen, Dyer, Doppelt +
Gilchrist, P.A.
255 S. Orange Avenue, Suite 1401
Post Office Box 3791
Orlando, Florida 32802
407-841-2330
407-841-2343 fax
Attorney for the Patent Owner

REEXAMINATION 90/013,851 (8,032,278)
Interview Outline (June 1, 2017)

I. Participants

Examiners:
(1) Karin M. Reichle
(2)
(3)

Patent Owner Attendees:
Chris Regan (34,906)
Jack Abid (58,237)

II. Background

Patent Owner:
Omega Patents LLC – Ken Flick
150+ patents
Omega Research & Development sold to Audiovox

Omega v. Calamp Litigation:
Filed – 12/20/13
Actual trial date: 2/16/16 to 2/24/16 **(Reexamination filed 10/28/16)**
Verdict: all asserted claims valid, infringed, secondary considerations found
Final Order issued 4-5-17, attached (relevant portions highlighted)
Final Judgment issued 4/24/17, also attached (relevant portions highlighted), and finding willful infringement and which includes a calculation for interest, and stipulated attorneys' fees, bringing the final judgment amount to $10,144,286

Calamp's Litigation Expert:
Admitted in depo no anticipation theory for '278 patent

Prior Reexamination on '278 Patent filed by Requester
Reexamination Certificate confirming patentability of all claims issued December 28, 2016.
Current reexamination filed during pendency of the prior reexamination in an attempt to convert the *ex parte* reexamination into an *inter partes* one.

III. The '278 Patent

'278 Patent Background:

A number of patents disclose various security and control systems that address data bus interoperability. For example, U.S. Pat. No. 5,719,551, assigned to Omega Patents, LLC, the assignee of the present invention, discloses a vehicle security system for a vehicle including a data bus connecting a plurality of vehicle devices. A signal enabling circuit enables the alarm controller to operate using a set of desired signals selected from a plurality of possible sets for

different vehicles. U.S. Pat. No. 6,011,460, assigned to Omega Patents, LLC, discloses a similar system where the set of desired signals from the plurality of different sets of signals for different vehicles is obtained, such as by connection and communication with a downloading device. Additionally, U.S. Pat. No. 6,756,885, also assigned to Omega Patents, LLC, discloses a multi-vehicle control system whereby a multi-vehicle compatible controller stores a set of device codes for a given vehicle device for a plurality of different vehicles. Device codes are read from the data communications bus, and a match between a read device code and the stored device codes is determined to provide compatibility with different vehicles. (Col. 2, lines 17-37)

Unfortunately, such advanced techniques for dealing with multiple device codes for a vehicle having a data communications bus have not yet been developed for vehicle tracking units. (Col. 2, lines 38-41).

'278 Patent Detailed Description:

The multi-vehicle compatible controller 111 is coupled to the vehicle data bus 122 for communication thereover with a vehicle device 121. The controller 111 illustratively includes a central processing unit (CPU) 126 or other logic circuitry which is connected to a clock signal generator 124, a memory 125, and input/output circuitry 127 to interface with the vehicle device 121 using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. (Col. 23, lines 59-67).

Further aspects of interfacing with a vehicle data communications bus are described in U.S. Pat. Nos. 5,719,551 and 6,011,460 assigned to the assignee of the present invention, the entire contents of which are incorporated herein by reference. (Col. 22, lines 3-7).

From '551:

> The security system 10 further preferably comprises desired signal enabling means 17 for enabling the alarm controller 10 to operate using a desired set of signals for a desired vehicle from among a plurality of possible sets of signals for different vehicles. As would be readily understood by those skilled in the art, the term different vehicles may include vehicles from different manufacturers, different models, or even different trim levels of the same make and model. (Col. 6, lines 33-43).

'278 Patent Claim 1:

1. A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible tracking unit comprising:

a vehicle position determining device;

a wireless communications device;

a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

IV. Anticipation/Obviousness Rejection over Chou et al.:
Chou et al. fails to disclose or fairly suggest: "said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles".

Rather, the cited portions of Chou et al. recite:

> [t]he vehicle bus interface may support one of vehicle bus standards such as CAN (Controller Area Network) and the Society of Automotive Engineers' SAE 11850- Class B Data Communication Network Interface. Alternatively, the processor supports some or all of the functions of the vehicle bus interface and connects directly to the vehicle bus 335. The vehicle bus shown in FIG. 2 is an inherent part of all new automobiles. (Col. 3, lines 37-44).
>
> [t]he vehicle bus adapter 120C translates the messages received from the vehicle bus into the language of the fault detector. It also translates messages from the fault detector into the language of the vehicle bus. The fault code specifications and protocols of the vehicle may be Original 30 Equipment Manufacturer (OEM) and model dependent. The term "vehicle fault codes" is meant to be synonymous with the term "trouble code" or "diagnostic trouble code". (Col. 4, lines 25-32).

Although Chou et al. discloses that it can operate with a plurality of different bus types, the skilled person would appreciate that vehicle device codes are propriety to each manufacturer. Indeed, as recognized by Chou et al., "[t]he fault code specifications and protocols of the vehicle may be Original Equipment Manufacturer (OEM) and model dependent." (Col. 4, lines 28-30). As was typical at the time of filing of the present application, these tracking and monitoring devices were programmed to work with the subject vehicle. In other words, the processor of Chou et al. is capable of talking on different types of automobile data buses, but it fails to use at least one corresponding vehicle device code from among a plurality thereof for different vehicles, as recited by independent Claim 1, for example.

Chou et al. fails to disclose or fairly suggest: "a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller".

In the Official Action, the Examiner stated: "such structure permits downloading of enabling data, e.g. instruction to gather data, vehicle parameter update/change, related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller, e.g. steps 2-6 in Figure 5. Thus '499 discloses or obviously suggests "a downloading interface" and such permits downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller." (Official Action, Page 27).

Since Chou et al. fails to disclose or fairly suggest using at least one corresponding vehicle device code from among a plurality thereof for different vehicles, as recited by independent Claim 1, for example, it also fails to disclose or fairly suggest downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller, as also recited by each independent claim.

In the Official Action, the Examiner cited to several portions of Chou et al., but the Examiner contended that the communication link carrying "vehicle parameter values", (Col. 7, line 35), discloses the claimed enabling data. As with the fault codes, the capability to interoperate with vehicle parameter values is predicated on the need to program the processor with software specific to the subject vehicle. Indeed, Chou et al. notes at Col.10, lines 5-10 that the vehicle parameter update/change could be performed as an additional service.

Electronic Acknowledgement Receipt

EFS ID:	29463526
Application Number:	90013851
International Application Number:	
Confirmation Number:	8717
Title of Invention:	Vehicle Tracking Unit with Downloadable Codes and Associated Methods
First Named Inventor/Applicant Name:	8032278
Correspondence Address:	CHRISTOPHER F. REGAN, ESQUIRE ALLEN, DYER, DOPPELT, MILBRATH & GILCHRIST, P.A. P. O. BOX 3791 - ORLANDO FL 32802-3791 US 407-841-2330 -
Filer:	Richard K. Warther./sheryllee scheibe
Filer Authorized By:	Richard K. Warther.
Attorney Docket Number:	C13-03896.RE2
Receipt Date:	12-JUN-2017
Filing Date:	28-OCT-2016
Time Stamp:	13:47:47
Application Type:	Reexam (Third Party)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		SS58106CIP1REX2AMD.pdf	3646556 ced0184f6488341579d3479dd3c96b3e8d4f745d	yes	117

Multipart Description/PDF files in .zip description		
Document Description	**Start**	**End**
Amendment/Req. Reconsideration-After Non-Final Reject	1	1
Claims	2	7
Applicant Arguments/Remarks Made in an Amendment	8	39
Affidavit-traversing rejectns or objectns rule 132	40	49
Reexam Miscellaneous Incoming Letter	50	60
Reexam Miscellaneous Incoming Letter	61	84
Reexam Miscellaneous Incoming Letter	85	88
Reexam Miscellaneous Incoming Letter	89	117

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Information:

Total Files Size (in bytes):	3646556

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Electronic Acknowledgement Receipt

EFS ID:	29464478
Application Number:	90013851
International Application Number:	
Confirmation Number:	8717
Title of Invention:	Vehicle Tracking Unit with Downloadable Codes and Associated Methods
First Named Inventor/Applicant Name:	8032278
Correspondence Address:	CHRISTOPHER F. REGAN, ESQUIRE ALLEN, DYER, DOPPELT, MILBRATH & GILCHRIST, P.A. P. O. BOX 3791 - ORLANDO FL 32802-3791 US 407-841-2330 -
Filer:	Richard K. Warther./sheryllee scheibe
Filer Authorized By:	Richard K. Warther.
Attorney Docket Number:	C13-03896.RE2
Receipt Date:	12-JUN-2017
Filing Date:	28-OCT-2016
Time Stamp:	14:26:29
Application Type:	Reexam (Third Party)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Reexam Miscellaneous Incoming Letter	ss58106int.pdf	244175 99f39ff6ad3ccc4c5d917333f7b66445e8eaee01	no	7

Warnings:

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Information:

Total Files Size (in bytes):	244175

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Exhibit 1

UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA
ORLANDO DIVISION

OMEGA PATENTS, LLC,

Plaintiff,

v. Case No: 6:13-cv-1950-Orl-40DAB

CALAMP CORP.,

Defendant.
_____/

VERDICT FORM

1. Do you find Omega has proven by a preponderance of the evidence that any of the accused CalAmp devices infringed any of the asserted claims of Omega's asserted Patents?

   ✓ Yes (for Omega) _____No (for CalAmp)

If your answer to Question 1 is "No," proceed to Question 3. If your answer to Question 1 is "Yes," for any claim(s) Omega has proven by a preponderance of the evidence that any of the accused CalAmp devices infringed, indicate a finding of infringement by marking "Yes" in the corresponding space provided in Questions 2.A through 2.D. below; for any claim(s) Omega has failed to prove by a preponderance of the evidence that any of the accused CalAmp devices infringed, indicate a finding of non-infringement by marking "No" in the corresponding space provided in Questions 2.A through 2.D. below.

2.A. U.S. Patent No. 6,346,876 B1 ("the '876 patent")

Has Omega proven by a preponderance of the evidence that any of the accused CalAmp devices infringed any of the following claims of the '876 patent?

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 1	☑ Yes ☐ No	☑ Yes ~~☑ No~~	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 3	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 4	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 5	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 12	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 14	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 16	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No

2.B. U.S. Patent No. 6,756,885 B1 ("the '885 patent")

Has Omega proven by a preponderance of the evidence that any of the accused CalAmp devices infringed any of the following claims of the '885 patent?

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 1	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 2	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 3	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 12	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 14	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No

2.C. U.S. Patent No. 7,671,727 B2 ("the '727 patent")

Has Omega proven by a preponderance of the evidence that any of the accused CalAmp devices infringed any of the following claims of the '727 patent?

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 1	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 10	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 11	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No

2.D. U.S. Patent No. 8,032,278 B2 ("the '278 patent")

Has Omega proven by a preponderance of the evidence that any of the accused CalAmp devices infringed any of the following claims of the '278 patent?

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 1	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 2	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 3	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 4	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 5	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 6	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 8	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 11	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No

U.S. Patent No. 8,032,278 B2 ("the '278 patent") continued from previous page

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 12	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No		
Claim 13	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 14	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 16	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 18	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 19	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 21	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No

After answering Questions 2.A. through 2.D., proceed to Question 3.

3. Has CalAmp proven by clear and convincing evidence that any claim of the asserted Patents is invalid?

_____ Yes (for CalAmp) ____✓____ No (for Omega)

4. If your answer to Question 3 is "No," proceed to Question 5. If your answer to Question 3 is "Yes," answer Question 4 below by indicating with an X any claim(s) you find invalid by clear and convincing evidence and indicate the reasons for invalidity, namely, identify which prior art references disclose the elements of the claim.

PATENT CLAIM	YES, INVALID	REFERENCES DISCLOSING THE ELEMENTS OF THE CLAIM
U.S. Patent No. 6,346,876		
Claim 1		
Claim 3		
Claim 4		
Claim 5		
Claim 12		
Claim 14		
Claim 16		
U.S. Patent No. 6,756,885		
Claim 1		
Claim 2		
Claim 3		
Claim 12		

PATENT CLAIM	YES, INVALID	REFERENCES DISCLOSING THE ELEMENTS OF THE CLAIM
U.S. Patent No. 6,756,885 (continued from previous page)		
Claim 14		
U.S. Patent No. 7,671,727		
Claim 1		
Claim 10		
Claim 11		
U.S. Patent No. 8,032,278		
Claim 1		
Claim 2		
Claim 3		
Claim 4		
Claim 5		
Claim 6		
Claim 8		
Claim 11		
Claim 12		
Claim 13		
Claim 14		
Claim 16		
Claim 18		
Claim 19		
Claim 21		

After answering Question 4, answer Question 5.

5. Which of the following factors that tend to indicate nonobviousness, if any, has been established by the evidence with respect to the claimed invention (write the word "yes" in the blank below to any question that you answer "yes" to):

yes	Were accused products covered by the claim commercially successful due to the merits of the claimed invention rather than due to advertising, promotion, salesmanship, or features of the product other than those found in the claim?
X	Was there long felt need for a solution to the problem facing the inventors, which was satisfied by the claimed invention?
X	Did others try, but fail, to solve the problem solved by the claimed invention?
yes	Did others copy the claimed invention?
X	Did the claimed invention achieve unexpectedly superior results over the closest prior art?
X	Did others in the field praise the claimed invention or express surprise at the making of the claimed invention?
yes	Did others accept licenses under patents because of the merits of the claimed invention?

If your answer to Question 1 is "Yes," answer Question 6.A. If your answer to Question 1 is "No," skip all remaining questions and proceed to sign and date this Verdict Form.

6.A. Has Omega proven by clear and convincing evidence that CalAmp acted despite an objectively high likelihood that its actions infringed a valid patent?

✓ Yes _____ No

If your answer to Question 6.A. is "Yes," proceed to Question 6.B. If your answer to Question 6.A. is "No," proceed to Question 7.

6.B. Has Omega proven by clear and convincing evidence that this objectively high likelihood of infringement was either known or so obvious that it should have been known to CalAmp?

✓ Yes _____ No

Proceed to Question 7.

7. What amount of damages, if any, do you find is adequate to compensate Omega for CalAmp's infringement of any claim found to be valid and not licensed?

$ 2,975,200

After answering Question 7, sign and date this Verdict Form.

SO SAY WE ALL THIS 24th DAY OF FEBRUARY, 2016.

JURY FOREPERSON

Exhibit 2

UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA
ORLANDO DIVISION

OMEGA PATENTS, LLC,

Plaintiff,

v. Case No: 6:13-cv-1950-Orl-40DCI

CALAMP CORP.,

Defendant.
_____/

ORDER

This cause is before the Court on the following:

1. Plaintiff's Motion for Entry of Final Judgment, Including Entitlement to Attorneys' Fees, Enhanced Damages, and Entry of a Permanent Injunction (Doc. 148), filed March 9, 2016;
2. Plaintiff's Renewed Motion to Award Prejudgment Interest (Doc. 154) filed March 18, 2016;
3. Defendant's Response in Opposition to Plaintiff's Renewed Motion to Award Prejudgment Interest (Doc. 166), filed April 4, 2016;
4. Defendant's Opposition to Plaintiff's Motion for Entry of Final Judgment, Including Entitlement to Attorneys' Fees, Enhanced Damages, and Entry of a Permanent Injunction (Docs. 169, 170), filed April 11, 2016;
5. Plaintiff's Notice of Filing Declarations (Doc. 187), filed April 28, 2016;
6. Defendant's Notice of Filing Responsive Declarations (Doc. 188), filed April 29, 2016;

7. Defendant's Notice of Supplemental Authority regarding Response in Opposition to Plaintiff's Motion for Entry of Final Judgment (Doc. 192), filed May 17, 2016;
8. Defendant's Notice of Grant of Reexamination of '885 Patent (Doc. 193), filed June 6, 2016;
9. Plaintiff's Notice of Supplemental Authority (Doc. 194), filed June 13, 2016;
10. Defendant's Response to Plaintiff's Notice of Supplemental Authority (Doc. 195), filed June 14, 2016;
11. Plaintiff's Response to Defendant's Notice of Supplemental Authority at Docket Number 192 (Doc. 198), filed July 19, 2016;
12. Defendant's Reply to Plaintiff's Response to Notice of Supplemental Authority (Doc. 199), filed July 22, 2016;
13. Defendant's Notice of Grant of Supplemental Authority (Patent Office Action) (Docs. 200, 201), filed August 30, 2016; and
14. Defendant's Notice of Supplemental Authority (Patent Office Action) (Doc. 202), filed September 19, 2016.

Upon due consideration, and after reviewing the pleadings and the transcript of the trial (Doc. 178–184) and the transcript of the post-trial motion's hearing (Doc. 196), Plaintiff's Motions for Entry of Final Judgement, Enhanced Damages, and Reasonable Attorneys' Fees are granted, and Plaintiff's motions for Permanent Injunction is denied.

I. BACKGROUND

Omega Patents, LLC ("Omega") brought the instant action against CalAmp Corp. ("CalAmp") and contends that CalAmp infringed the claims of U.S. Patent No. 6,346,876

("the '876 Patent")[1], U.S. Patent No. 6,756,885 ("the '885 Patent")[2], U.S. Patent No. 7,671,727 ("the '727 Patent")[3], and U.S. Patent No. 8,032,278 ("the '278 Patent")[4] (collectively, the "patents-in-suit").[5] (Doc. 1). The trial of this matter commenced on February 16, 2016, and concluding on February 24, 2016, (Doc. 178–184), with the jury returning a verdict in favor of Omega in which they found that all of Omega's asserted claims were valid and had been infringed upon by CalAmp's accused devices: the LMU 3000, LMU 3030, LMU 3050, the V-Pod and the V-Pod 2. (Doc. 144, p. 1–6). The jury rejected the Defendant's invalidity contentions and made three findings for Plaintiff on secondary considerations indicating nonobviousness. (*Id.* at pp. 7–9). Finally, the jury found Plaintiff had proven by clear and convincing evidence that CalAmp acted despite an objectively high likelihood that its actions infringed a valid patent and that this high likelihood of infringement was either known or so obvious that it should have been known to CalAmp. (*Id.* at pp. 9–10). The jury awarded damages in the amount of $2,975.200. (*Id.* at p. 10).

Omega contends the Court should award reasonable attorneys' fees pursuant to 35 U.S.C. § 285, enhanced damages pursuant to § 284, and a permanent injunction pursuant to § 283. (Doc. 148). CalAmp opposes the relief requested by Omega. (Doc. 169). The Court held oral argument on the post-trial motions on May 2, 2016. (Doc. 196).

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[1] The jury found infringement of claims 1, 3, 4, 5, 12, 14, and 16. (Doc. 144, p. 2).
[2] The jury found infringement of claims 1, 2, 3, 12, and 14. (*Id.* at p. 3).
[3] The jury found infringement of claims 1, 10, and 11. (*Id.* at p. 4).
[4] The jury found infringement of claims 1–6, 8, 11–16, 18–19, and 21. (*Id.* at pp. 5–6).
[5] The patents-in-suite relate to control systems for vehicles with a "data communication bus." The term "data communication bus" has been previously construed by the Court to mean "wired connection for communication of digital messages among vehicle devises, with each message including one or more device addresses." (Doc. 50, p. 25).

The parties subsequently submitted numerous pleadings consisting of supplemental authority and notices of *ex parte* reexamination by The Patent Office of the '278 patent, the '885 patent, and the '876 patent. (Docs. 198–202).

II. STANDARD

A. Enhanced Damages

When this litigation proceeded to trial, the issue of enhanced damages was governed by the two-step inquiry announced by the Federal Circuit in *In re Seagate Tech., LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007) (*en banc*). Following oral argument on Omega's motion for enhanced damages, the United States Supreme Court decided *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923 (2016). The Court in *Halo* rejects the *Seagate* two-part test for determining when a district court my increase damages pursuant to 35 U.S.C. § 284 as being inconsistent with the plain language of the statute. *Halo*, 136 S. Ct. at 1928. Following a historical exegesis of enhanced damages under the Patent Act, the Court concluded that "although there is 'no precise rule or formula' for awarding damages under § 284, a district court's 'discretion should be exercised in light of the considerations' underlying the grant of that discretion." *Halo,* 136 S. Ct. at 1932 (quoting *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749, 1756 (2014)).

The Court in *Halo* remarked that enhanced damages under patent law "should generally be reserved for egregious cases typified by willful misconduct." *Halo*, 136 S. Ct. at 1934. The Court observed that "[t]he sort of conduct warranting enhanced damages has been variously described in our cases as willful, wanton, malicious, bad-faith, deliberate, consciously wrongful, flagrant, or—indeed—characteristic of a pirate." *Halo,*

136 S. Ct. at 1932. The Court rejected the heightened standard of proof provided for by the Federal Circuit in *Seagate* in favor of a preponderance of the evidence standard. *Halo,* 136 S. Ct. at 1934. The type of culpability that supports an award of enhanced damages is "measured against the knowledge of the actor at the time of the challenged conduct." *Halo,* 136 S. Ct. at 1933.[6] Once a jury determines that an infringer "is guilty of conduct upon which increased damages may be based [,] ... the court then determines, exercising its sound discretion, whether, and to what extent, to increase the damages award given the totality of the circumstances." *Jurgens v. CBK, Ltd.*, 80 F.3d 1566, 1570 (Fed. Cir. 1996). While a finding of willful infringement does not mandate the imposition of enhanced damages, once the finding is made "the court must explain its reasons for declining to award enhanced damages." *Carnegie Mellon Univ. v. Marvell Tech. Group, Ltd.*, No. CIV.A. 09-290, 2014 WL 1320154, at *9 (W.D. Pa. Mar. 31, 2014), *rev'd in part on other grounds*, 807 F.3d 1283 (Fed. Cir. 2015).

B. Attorney's Fees

The Supreme Court in *Octane Fitness* rejected the "more rigid and mechanical formulation" for determining when the district court may award reasonable attorney fees to the prevailing party in favor of the plain statutory text of § 285, which provides "[t]he court in exceptional cases may award reasonable attorney fees to the prevailing party." 35 U.S.C. § 285; *Octane Fitness*, 134 S. Ct. at 1755. An exceptional case is "simply one that stands out from others with respect to the substantive strength of a party's litigating

[6] The Court in *Halo* criticized, in pertinent part, the second prong of the *Seagate* test which allowed an infringer to escape enhanced damages by mustering a defense of invalidity or noninfringement at trial "even if [the infringer] did not act on the basis of the defense or was even aware of it." *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923, 1933 (2016).

position (considering both the governing law and the facts of the case) or the unreasonable manner in which the case was litigated." *Octane Fitness*, 134 S. Ct. at 1756. The district court applies the preponderance of the evidence standard and considers the totality of the circumstances. The district court may consider a number of factors in determining whether to award fees, including: (1) whether the infringer deliberately copied the invention; (2) whether the infringer had a good faith basis for believing it did not infringe or that the patent was invalid; (3) the closeness of the case; (4) conduct of the part in litigation; (5) defendant's relative size and financial condition; (6) the duration of the infringement; (7) remedial action by the defendant; (8) defendant's motivation for harm, and (9) whether defendant attempted to conceal its misconduct. *Read Corp. v. Portec, Inc.*, 970 F.2d 816, 827 (Fed. Cir. 1992).[7]

C. Permanent Injunction

The Supreme Court in *eBay Inc. v. MercExchange, L.L.C.*, 126 S. Ct. 1837, 1839 (2006), held that to obtain an injunction a party "must demonstrate: (1) that is has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest wound not be disserved by a permanent injunction." The Federal Circuit subsequently held that *eBay* eliminates a presumption of irreparable injury to the patent holder after a judgment of infringement and of no invalidity is returned. *Robert Bosch LLC v. Pylon Mfg. Corp.*, 659 F.3d 1142, 1149 (Fed. Cir. 2011). Moreover, there must be a

[7] The *Read* factors are equally applicable to the assessment of enhanced damages.

causal nexus between the irreparable injury and the patent infringement. *Apple Inc. v. Samsung Elecs. Co.*, 735 F.3d 1352, 1360 (Fed. Cir. 2013).

III. DISCUSSION

Mr. Flick, the inventor of the four patents at issue, met with representatives of CalAmp, including Mr. Gallin Chen, in 2009 at a trade show to discuss Omega's belief that CalAmp was infringing certain patents. (Doc. 179, 76:10-18). During this initial meeting, Mr. Chen expressed his view that the Omega patents were invalid, but he nonetheless requested a draft license agreement. (*Id.* at 78:1-11). Omega complied and sent CalAmp a license agreement that CalAmp rejected shortly thereafter, resulting in Omega filing suit against CalAmp on December 15, 2009.[8] (*Id.*). Once litigation had commenced, Mr. Chen agreed to meet with Mr. Flick again at a trade show scheduled for January 2010. (*Id.* at 81:14-18). During the ensuing conversation, Mr. Chen represented to Omega that CalAmp did not program their products and any alleged infringement was caused by the end-user who programs the CalAmp devices. (*Id.* at 81:24– 82:13). Based upon this representation Mr. Flick stayed the litigation against CalAmp and sued two end users: Numerex and Sky Patrol. (*Id.*). Numerex quickly settled with Omega and entered into a licensing agreement. (*Id.* at 82:14-23). Sky Patrol, however, revealed that, contrary to Mr. Chen's representation, CalAmp was responsible for programing their offending devices.[9] (*Id.* at 83:11–84:12). CalAmp subsequently settled with Omega and agreed to pay a royalty. (*Id.* at 84:13-21; Pl.'s Ex. 45).

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[8] The lawsuit filed by Omega in 2009 pertained to patents other than those at issue in the instant litigation.

[9] The deposition of CalAmp engineer, Peter Hergesheimer, was played at trial, and Mr. Hergesheimer acknowledged that CalAmp programs LMUs for approximately 75% of their customers, contradicting Mr. Chen's claim that CalAmp sold a black box. Mr.

Against this backdrop, CalAmp introduced the accused devices in late 2011 or early 2012. (Doc. 182, 53:2-5). Prior to introducing the accused products, CalAmp's counsel, Mr. David Bailey, reviewed a number of patents held by the Plaintiff, including the '885 and '727 patents at issue in this litigation. (Pl.'s Ex. 39). At the same time counsel for Omega and for CalAmp engaged in discussions concerning Omega's "extensive patent portfolio" in the area of databus applications.[10] (Pl.'s Ex. 34). It is, therefore, beyond dispute that CalAmp was fully aware of the Omega patents prior to introducing the accused products into the market.

Mr. Chen admitted on cross-examination that the LMUs and V-Pod and V-Pod2 were introduced as a direct result of consumer demand. (Doc. 182, 142:11-24). Mr. Chen explained that the LMUs connect to the vehicle data bus and read data from the bus. (*Id.* at 54:8-14). According to Mr. Chen, the LMU has a transmitter and a receiver, can read data from the vehicle data bus, can query a vehicle device for data, and can store the data received in response to the query. (*Id.* at 129:1-21). The '727 patent held by Omega, for example, claims a speed exceeded notification device for a vehicle comprising a "vehicle data communications bus" and "at least one vehicle device generating data related to vehicle speed on the" bus which determines when a vehicle's speed has exceeded a set threshold. (Joint Ex. 4, column 7, lines 4-17).

In an attempt to distinguish the LMU devices from the '727 patent, Mr. Chen testified that the LMU speed data is derived from the GPS module and not from the vehicle

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Hergesheimer also testified that software is loaded on the LMU online, because that is more cost effective than loading it at the time of manufacture.

[10] CalAmp engineer, Peter Hergesheimer, testified at trial via deposition that he did not design around the Omega patents.

bus.[11] (Doc. 182, 133:13-21). He added that the LMU has the capacity to read speed from the bus, but CalAmp does not allow this because speed data generated from GPS is more accurate. (*Id.*). However, Mr. Jerrery Eidberger, a CalAmp field application engineer, testified via deposition that a substantial percentage of customers do in fact have the LMU programmed by CalAmp to read the speed from the bus. Additionally, CalAmp responded to Omega's Frist Set of Interrogatories, wherein Omega asks CalAmp to "identify all customers for whom CalAmp has loaded scripts for geofencing or speed alerts into an Accused Product" by providing a long list of customers for whom CalAmp has loaded scripts related to speed alerts, noting that "some scripts do not cause a speed exceeded notification." (Pl.'s Ex. 16). CalAmp's acknowledgement that some scripts do not cause a speed exceeded notification means that other scripts do provide the speed exceeded notification from the vehicle bus as opposed to the GPS. Mr. Chen's testimony wherein he flatly denies the LMU reads vehicle speed from the bus is clearly contradicted by CalAmp's interrogatory answers.

Mr. Andrews, CalAmp's retained expert, echoed this misrepresentation when he testified that the CalAmp devices obtain speed data from the internal GPS sensor as opposed to obtaining speed from the bus. (Doc. 182, 248:3-5; 249:1-5). On cross-examination, Mr. Andrews admitted that if the LMU is programmed to read speed from the data bus and make the threshold determination that the speed has been exceeded, the accused device infringes the '727 patent. (Doc. 183, 172:19-22). Either Mr. Andrews ignored CalAmp's answers to Omega's interrogatories in reaching his opinion that the

[11] The '727 patent indicates that it is an object of the invention "to provide a speed exceeded notification device which may be readily used in a vehicle including a data communications bus and related methods." (Joint Ex. 4, column 2, lines 38-40).

accused products do not infringe the '727 patent because speed is derived via GPS, or CalAmp withheld this information from its expert in order to obtain a non-infringement opinion. Either way, the testimony of Mr. Chen and Mr. Andrews provide substantial support for the jury's finding of willful infringement of the '727 patent, and this Court concurs in the jury's finding of willful infringement.

Further indicia of willful infringement by CalAmp is found in an e-mail sent by Mr. Chen to outside patent counsel, Mr. David Bailey[12], and senior vice president for corporate development, Mr. Garo Sarkissian. (Doc. 182, 112:13-19). On July 30, 2013, eight months after Omega instituted this lawsuit, Mr. Chen wrote to Messrs, Bailey, and Sarkissian and asked them to look at the '278 patent. (Pl.'s Ex. 48). Referring to claim 13 of the '278 patent, Mr. Chen wrote: "13 may relate to how we program a unit at the factory so it may be harder to avoid." (*Id.*). The '278 patent has as an object of the invention to "provide a multi-vehicle compatible tracking unit which may be used to control operable vehicle devices, and/or read information therefrom via the vehicle data communications bus." (Joint Ex. 5, column 2, lines 46-49). Clearly, Mr. Chen was concerned as late as July 30, 2013, that the accused devices infringe claim 13 of the '278 patent, as the jury ultimately found. His admission in this e-mail that the units are programed at the CalAmp factory is further evidence that his trial testimony describing the LMU as a black box, programmed by the end-user, was false.

In the same e-mail, Mr. Chen predicts what will ultimately become a defense theory advanced at trial, when he writes: the '727 patent "can be avoided by using GPS speed,

[12] Mr. Bailey is an attorney practicing in the same firm as trial defense counsel. (Doc. 182, 144:20-25).

not vehicle bus received speed, for speeding alerts." (Joint Ex. 5). It is difficult to ascribe a good faith basis for persisting at trial on the theory that the LMU determines speed from the GPS, as opposed to obtaining the data from the bus, when CalAmp's supplemental response to Omega's interrogatory, in which CalAmp admits to loading scripts for speed exceeded notification, was filed March 6, 2015—more two years after Mr. Chen suggested to his counsel and his colleague that using GPS speed will allow CalAmp to avoid the '727 patent. This email is consistent with an attempt to create a plausible defense at trial, perhaps in anticipation of the then-available *Seagate* enhanced damages analysis.[13] That Mr. Chen continued to advance the GPS theory at trial and in view of CalAmp's interrogatory answer demonstrates willful copying of Omega's invention.

In an attempt to satisfy the *Seagate* two-part test at trial, Mr. Chen testified that prior to launching the accused devices, CalAmp investigated the vehicle data bus market. (Doc. 182, 55:21-24). Mr. Sarkissian directed Mr. Chen to search for prior art, resulting in Mr. Chen reviewing over 300 patents. (*Id.* at 57:12–58:2). Mr. Chen also stated that in late 2010, Mr. Sarkissian, Mr. Steven Moran (CalAmp's general counsel), and he had received verbal opinions from Mr. Bailey that the accused products did not infringe existing patents. (*Id.* at 114:7-25; 117:7-12). Mr. Chen stated that he did not request Mr. Bailey to memorialize these oral opinions in writing until after the lawsuit was commenced by Omega. (*Id.* at 145:1-3). The defense marked for identification exhibits 71–74, which are opinion letters written by Mr. Baily as to each patent-in-suit, and each opinion letter is

[13] The Supreme Court in *Halo* disapproved of the *Seagate* test in part because it allowed an infringer to "escape any comeuppance under § 284 solely on the strength of his attorney's ingenuity." *Halo*, 136 S. Ct. at 1933. Hence, opinion letters issued after-the-fact shed little light upon the infringer's culpability which must be "measured against the knowledge of the actor *at the time* of the challenged conduct." *Id.* [emphasis added].

dated June 27, 2014.[14] (Def.'s Exs. 71–74). However, it is curious—assuming Mr. Bailey had vetted the accused products against existing patents back in 2010—that in July 2013 Mr. Chen highlighted the difficulty of avoiding claim 13 of the '278 patent and suggested that the '727 patent can be avoided by focusing upon GPS speed determination. If, in fact, counsel had vetted the accused devices and the Omega patents three years earlier, there is no reason for Mr. Chen to suggest a noninfringement theory to his counsel, nor is there any reason for Mr. Chen to be concerned over claim 13 of the '278 patent. The Court does not find the testimony of Mr. Chen or of Mr. Bailey credible on the issue of whether counsel had rendered legal opinions prior to the launch of the accused products in which he opined the accused products do not offend any patent held by Omega. Mr. Chen's credibility is undermined by other evidence presented at trial[15], and it is incomprehensible that counsel would refrain from issuing a written opinion of noninfringement or invalidity to his client at or near the time that CalAmp launched the accused products. No reasonable explanation for this highly unusual practice was offered by CalAmp or Mr. Bailey.

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[14] The Court sustained Omega's objection to the admissibility of Mr. Bailey's opinion letters on the grounds that the letters—offered during Mr. Chen's testimony—constitute hearsay, and the letters confer expert testimony which was not properly disclosed by the Defense. However, the Court has considered the four opinion letters for purposes of the enhanced damages analysis. The Court is unaware of the substance of the verbal opinions allegedly offered by Mr. Bailey in 2010 prior to the launch of the accused products.

[15] Mr. Chen testified via deposition that he removed information from the CalAmp website regarding the LMU devices to make it more difficult for Omega to identify infringement. (Pl.'s Ex. 48) ("We don't want to make it easy for Omega to build their infringement case by just looking at the datasheets on our website. . . . the bigger hole is LMU 3000; it's launched, mature and broadly integrated by multiple partners. We can bury (i.e. omit) the LMU3030 for now on open website.").

The Court next considers whether this was a "close case" and whether CalAmp held a good faith belief the patents were not infringed or were invalid. CalAmp and their expert, Mr. Andrews, note that the Omega patents require the performance of a control function. (Doc. 182, p. 177:7-15; Doc. 195, p. 3). At trial Mr. Andrews defined "control function" as "a message on the bus that is going to control a device exhibiting a physical change in the device or the system." (Doc. 182, 177:7-15). The notion that control function envisions a physical change is critical to the Defendant's noninfringement arguments. Based upon the Court's review of Mr. Andrew's initial expert report, (Def.'s Ex. 38), this definition of control function does not appear in his original expert report. Mr. Andrews acknowledged on cross-examination that he did not apply the physical change qualifier to control function in his deposition. (Doc. 183, 103:10-14). Mr. Andrews explained that he had misspoken in his deposition when he failed to describe control function as requiring a physical change in the device or the system. (*Id.*). Mr. Andrews did, however, include in his rebuttal report the definition of control function as having the ability to enable a physical change in a device of the system; for example, locking a door, starting the engine, or turning on a light." (Def.'s Ex. 47, pp. 11–12). The crux of the non-infringement defense is that the LMU merely sends a "query for data" and does not control a vehicle device. (Doc. 182, p. 177:20-22). Because the LMU does not control a vehicle device, Mr. Andrews argues the accused products cannot satisfy the multi-vehicle compatible controller claim in the patents. (*Id.* at 238:9-12; 238:25–239:6; 239:14–240:6). Accordingly, Mr. Andrews' definition of control function as mandating a physical change precludes one from finding for Plaintiff Omega.

In order for Mr. Andrews' non-infringement argument to prevail, one must accept his opinion that the LMU is a passive device that uses the bus to request and receive data, but which does not "perform one or more control functions" with respect to the vehicle device. (Def.'s Ex. 47, p. 12; Doc. 182, 240:9-11). The difficulty lies in finding a basis for Mr. Andrews' interpretation of "control function." The Court construed the claim term "controller" to mean "electronic circuitry that performs one or more control functions." (Doc. 50, p. 24). The claim term "multi-vehicle compatible controller" was construed by the Court to mean "electronic circuitry that performs one or more control functions, and can operate with more than one vehicle." (*Id.*). The Court did not construe the term control function. CalAmp urged the Court to construe "function" as "[a]n operation of a vehicle device, such as remote starting the engine, remotely unlocking the vehicle doors, or changing the mode of a security system between armed and disarmed." (*Id.* at 18). But the Court observed: "The patent states the invention may be embodied in many different forms and should not be construed as limited to the illustrated embodiments set forth herein." (*Id.* at 18) (internal quotation marks and citations omitted). Accordingly, Mr. Andrews' interpretation of "control function" is not based upon the Court's claim construction. Similarly, nothing in any specification of the four patents-in-suit support Mr. Andrews' definition of "control function." (Joint Ex. 1-4; Doc. 183, 117:8-11; 118:1-6).

Mr. Andrews acknowledged that the microprocessor in the LMUs and the V-Pods sends a signal along the bus to the ECU and requests a response. (Doc. 183, 114:17–115:6). Omega's counsel engaged Mr. Andrews in the following colloquy:

> Q: Let's say the ECU responds with the device code signal—that would be controlling the ECU, wouldn't it?
>
> A: You're asking it for information. It's providing it back, yes.

Q: So that's a yes?

A: Okay.

(*Id.* at 118:9-24)

Q: And would you also agree with me ... that sending a signal and getting a response could be a control function?

A: Yes.

(*Id.* at 120:5-20)

Mr. Andrews admits that when the LMU seeks information from the ECU, the ECU must respond via the bus; however, he contends this is not a control function. (*Id.* at 143:1-6). Mr. Andrews argues that "one with ordinary skill in the art, in the automotive industry in telematics, would understand the difference between a command and a query." (*Id.* at 116:7-10). It is Mr. Andrews' contention that a command—or as he would call it a query—by the LMU that produces a mandatory response by the ECU does not meet the definition of controller and control function. The Defendant's attempt to cast a mandatory response to a query as a passive act that falls short of a control function is unsupported by the record and was conspicuously absent from Mr. Andrews' initial expert report. The emergence of this opinion late in the litigation is highly suspect, particularly when one considers that Mr. Andrews' also opined that the LMU cannot infringe the '727 patent because the LMU only generates speed data from the GPS—which is clearly contradicted by CalAmp's response to Omega's interrogatories.

Mr. Andrews and counsel for CalAmp presented other non-infringement arguments at trial. However, the Court finds that these additional grounds—all of which were rejected by the jury—do not, giving the totality of the circumstances, mitigate against an award of enhanced damages and reasonable attorneys' fees. For example, Mr.

Andrews took issue with whether signals were stored on the accused devices as required by the '885 patent. (Doc. 183, 122:6-9). However, on cross-examination, Mr. Andrews agreed that the LMU sends out signals and the ECU sends a response, "[a]nd those signals are stored on the controller." (*Id.* at 123:7–124:9). Mr. Andrews admits the signals are stored on the LMU until the device is unplugged and re-plugged at which time it starts over. (*Id.* at 125:5-9). In fact, Mr. Andrews agrees the LMU is intended to be used in a manner that would store the CAN data and can be used in multiple vehicles. (*Id.* at 162:6-13).

CalAmp also presented invalidity defenses by identifying prior art that, when considered with SAE standards, rendered the patents obvious. In supplemental filings by the parties, the Court has been made aware that CalAmp sought *ex parte* reexamination of three of the patents-in-issue. The United States Patent and Trademark Office ("USPTO") has reexamined the '278 patent[16], (Doc. 192); the '885 patent[17], (Doc. 193), and the '876 patent[18], (Doc. 201). The USPTO rejected the pertinent claims of these three patents. While the USPTO issued Office Actions in *Ex Parte* Reexamination of the '278, '885, and '876 patents and rejected the relevant claims of these patents, the finding by the USPTO does not have preclusive effect as to the verdict rendered by the jury in the instant litigation unless the final USPTO decision is affirmed by the Federal Circuit before the jury's verdict become final. *Fresenius USA, Inc. v. Baxter Inter., Inc.*, 721 F.3d 1330,

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[16] Omega's response, including declarations from Mr. Suman, (Doc. 198-2), whose patent is being considered by the examiner as prior art, and Mr. McAlexander, (Doc. 198-3), demonstrates that the examination of '278 remains in a state of flux. (Doc. 198).
[17] The USPTO rejected every claim of the '885 patent on anticipation and obviousness grounds. (Doc. 202, p. 1).
[18] The USPTO rejected every claim of the '876 patent on anticipation and obviousness grounds. (Doc. 201, p. 2).

1346 (Fed. Cri. 2017). Accordingly, the Court is not bound by the examiner's non-final conclusions when determining whether the jury's verdict is supported by substantial evidence.

The Court recognizes that CalAmp does not suggest in their notices of supplemental authority that the non-final action of the PTO is outcome determinative. Rather, CalAmp cites to the examiner's findings to support the reasonableness of their reliance upon invalidity as a defense. The Court rejects CalAmp's position for a number of reasons. CalAmp's expert, Mr. Andrews, combined certain prior art, such as the Braitberg '497 patent, (Def. Ex. 10), with the Society of Automotive Engineers ("SAE") standard J1978, to predict the Omega '876 patent. (Doc. 182, 173:14–175:23; 178:8-15; 180:22–181:19). Mr. Andrews testified that "one of ordinary skill in the art [would] look to J1978 to determine how to connect the bus." (*Id.* at 184:13–18). However, Mr. Andrews, despite numerous questions posed on cross-examination, failed to articulate the motive for one of ordinary skill in the art to combine these references.[19] The best Mr. Andrews could do in suggesting a motive to combine J1978 with Braitberg is that scan tools were being used at the relevant time; hence, one would know to combine SAE J1978 with Braitberg to make a device multi-vehicle compatible.[20] (Doc. 183, 149:21–150:3). Mr. Andrews applied the Braitberg reference to the '876 and '885 patents, (Doc. 182, p. 198:1-

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[19] "A party seeking to invalidate a patent on the basis of obviousness must demonstrate by clear and convincing evidence that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so." *Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1360 (Fed. Cir. 2012) (internal quotation marks omitted).

[20] Mr. Andrews admits that Braitberg does not provide multiple vehicle compatibility, a claim that is necessary to invalidate the Omega patents, so he adds SAE J1978. (Doc. 183, p. 130:6-10). Interestingly, Mr. Chen testified he was unware of J1978.

20), and he applied J1978 to all four patents-in-suit. (*Id.* 250:1–270:19). The motive to combine prior art is critical to CalAmp's invalidity defense, because Mr. Andrews could not find prior art that had all of the claims that Mr. Flick has in his patents. (*Id.* at 132:17–133:7). Mr. Andrews failed to provide more than a conclusory opinion that one of ordinary skill in the art at the relevant time would have known to look to SAE J1978 in combination with the various prior art references. In this regard, Mr. Andrews' fails to assist the Defendant in carrying its burden of proof on invalidity.

In addition, the Court in *Halo* has eliminated the ability of an accused infringer to posit reasonable invalidity defenses which were not relied upon at the time the accused products were introduced into the market. *Halo*, 136 S. Ct. at 1933. Under *Seagate*, "the ability of the infringer to muster a reasonable (even though unsuccessful) defense at the infringement trial" was dispositive of the issue of enhanced damages. *Id.* Post-*Halo*, however, "culpability is generally measured against the knowledge of the actor at the time of the challenged conduct." *Id.* There is no indication in the record that Mr. Andrews provided CalAmp his opinion on invalidity before the accused products went into production in 2011. While the opinion letters issued by Mr. Bailey as to the '885 patent refer to SAE J1978, J1979, (Def.'s Ex. 73), this letter was written in June 2014 long after infringement had begun. Thus, there is no record evidence that CalAmp had knowledge of the invalidity defense derived from the combination of prior art and SAE standards at the time of the challenged conduct.[21] Since culpability is measured against the infringer's

[21] In fact, Mr. Chen filed for patent US 2010/0158211on December 21, 2011, claiming "[s]ystems and methods in accordance with embodiments of the invention continuously collect information from vehicle devices via a vehicle data bus, store information in a database, and retrieve information from the database in response to requests from

knowledge at the time of the challenged conduct, the after-the-fact invalidity defense is of little merit in assessing enhanced damages.[22]

The next *Read* factor directs the Court to consider the Defendant's size and financial condition. According to Omega's expert, Mr. Christian Tregillis, "CalAmp has sold over 245,000 units of the Accused Products, for over $21.5 million from April 2011 through November 2014," (Pl.'s Ex. 65, p. 37), "earning over $4.1 million in gross profits." (Pl.'s Ex. 65, p. 47). CalAmp is a publicly-traded corporation with over $75 million dollars in earnings last year. (Pl.'s Ex. 65). While CalAmp argues that the accused products are low-margin products sold in an extremely competitive market, this misses the point. The overall financial health of the infringer is evaluated—not the net profit generated by the offending conduct—to "ensure that enhanced damages would not prejudice defendant's non-infringing business." *Powell v. Home Depot U.S.A., Inc.*, 715 F. Supp. 2d 1285, 1298 (S.D. Fla. May 28, 2010). The Defendant has the financial wherewithal to endure the sanction of enhanced damages and an award of reasonable attorneys' fees.

A closely related factor for the Court to consider is the duration of CalAmp's conduct. As previously discussed, CalAmp was well aware of Omega's patents since at least 2010. Rather than take a license, and choosing not to design around Omega's patents, CalAmp elected to sell infringing products and continues to do so to this day. CalAmp's motivation to engage in this behavior is obvious: their customers wanted this technology, and CalAmp wanted to provide it. Moreover, as previously discussed,

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remote devices." (Pl.'s Ex. 14, Abstract). The patent issued June 21, 2012, and Mr. Chen did not disclose the prior art relied upon to invalidate Omega's similar patents.

[22] Assuming CalAmp had knowledge of the invalidity defense at the relevant time, the Court would not reach a different conclusion, since the motive to combine the prior art with the SAE standards is deficient.

CalAmp attempted to conceal its infringement by misrepresenting to Omega that it only sold black boxes which were programmed by customers and by removing information from the CalAmp website to make discovery of infringement more difficult. These additional factors all weigh in favor of an award of enhanced damages and reasonable attorneys' fees.

Based upon the foregoing, the Court finds CalAmp willfully infringed the Omega patents-in-suit, further finding that the jury's finding of willful infringement is supported by substantial evidence. The Court independently reviewed the record evidence and finds an award of enhanced damages of threefold the actual damages and an award of reasonable attorneys' fees is supported by the evidence.[23]

The Court turns now to Omega's request for a permanent injunction. Omega quotes Chief Justice Robert's concurring opinion in *eBay* wherein he remarks that from "at least the early 19th century, courts have granted injunctive relief upon a finding of infringement in the vast majority of patent cases." *eBay*, 126 S. Ct. at 1841. However, Justice Thomas speaking for the majority clarified that "the decision whether to grant or deny injunctive relief rests within the equitable discretion of the district courts, and that such discretion must be exercised consistent with traditional principles of equity, in patent disputes no less than in other cases governed by such standards." *Id.* As Justice Kennedy elaborates in his concurrence, "trial courts should bear in mind that in many instances the nature of the patent being enforced and the economic function of the patent holder

[23] The Court notes that even if the PTO's non-final action rejecting the relevant claims of the '885 and '876 patents are affirmed by the Federal Circuit, enhanced damages and reasonable attorneys' fees are appropriate for the willful infringement of the '727 and '278 patents—assuming the '278 patent survives reexamination.

present considerations quite unlike earlier cases." *Id.* at 1842. Justice Kennedy cautions trial courts to use care in issuing permanent injunctions in the context of patent holders who primarily employ their patent to obtain licensing fees. *Id.* "When a patented invention is but a small component of the product the companies seek to produce and the threat of an injunction is employed simply for undue leverage in negotiations, legal damages may well be sufficient to compensate for infringement and an injunction many not serve the public interest." *Id.*

Mr. Flick is a patent holder who presently generates revenue by licensing his patents; he no longer manufactures products. While Omega argues that it has maintained a restrictive licensing program of the patents-in-suit and has selectively licensed only a limited number of entities in the marketplace, (Doc. 148, p. 17), it is equally true that Omega was willing to license its patents to CalAmp. While Mr. Flick testified that Omega requires most licensees to transfer rights of improvements to Omega in order to strengthen its patents, it is clear that Omega does not require every licensee to agree to this term. In fact, the License Agreement entered into between Omega and CalAmp in relation to the products sold to SKYPATROL does not provide for assignment of improvements to Omega. (Pl.'s Ex. 88).

While cognizant of Omega's contention that a compulsory licensing agreement does not make Omega whole, and recognizing the Court need not balance the hardships in cases of willful infringement[24], the Court finds that monetary damages are adequate to compensate Omega for the injury sustained by CalAmp's infringement. Moreover, as

[24] *United States v. Marine Shale Processors*, 81 F.3d 1329, 1358 (5th Cir. 1996); *see also Windsurfing Int'l v. AMF, Inc.*, 782 F.2d 995, 1003 (Fed. Cir. 1986).

indicated by the declaration of Mr. Michael Zachan, CalAmp's Senior Vice President, a number of public safety, local government, and utility providers would be placed at a considerable disadvantage in the execution of their important duties if a permanent injunction issues. The Court agrees with Omega that the logistic and financial turmoil that befalls CalAmp should an injunction be ordered is of their own design. However, the collateral impact upon important public safety functions weighs against a permanent injunction.

For the foregoing reasons, the Court denies Omega's request for a permanent injunction, finding that the payment of customary licensing fees to Omega is adequate to protect the interests of Omega.

IV. CONCLUSION

For the aforementioned reasons, it is **ORDERED AND ADJUDGED** as follows:

1. Plaintiff Omega Patents, LLC's Motion for Entry of Final Judgement (Doc. 148) is **GRANTED**.
2. Plaintiff Omega Patents, LLC's Renewed Motion to Award Prejudgment Interest (Doc. 154) is **GRANTED**.
3. Plaintiff Omega Patents, LLC's Motion for Enhanced Damages (Doc. 148) is **GRANTED** and Plaintiff is awarded treble damages in the amount of eight million, nine hundred and twenty-five thousand and six hundred dollars ($8,925,600).
4. Plaintiff Omega Patents, LLC's Motion for Entitlement to Reasonable Attorneys' Fees (Doc. 148) is **GRANTED**.

5. Plaintiff Omega Patents, LLC's Motion for Entry of a Permanent Injunction (Doc. 148) is **DENIED**.

DONE AND ORDERED in Orlando, Florida, on April 6, 2017.

PAUL G. BYRON
UNITED STATES DISTRICT JUDGE

Copies furnished to:

Counsel of Record
Unrepresented Parties

Exhibit 3

UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA
ORLANDO DIVISION

OMEGA PATENTS, LLC,

Plaintiff,

v. Case No: 6:13-cv-1950-Orl-40DCI

CALAMP CORP.,

Defendant.
_____/

FINAL JUDGMENT

This case was tried to a jury which returned a verdict in favor of plaintiff on February 24, 2016. On April 5, 2017, this Court granted in part and denied in part plaintiff's motion for entry of judgment but did not enter a form of judgment specifying its terms. This Final Judgment reflects the substance of that ruling.

Pursuant to Rule 58 of the Federal Rules of Civil Procedure, in accordance with the jury verdict delivered on February 24, 2016, and this Court's Orders, Final Judgment is hereby entered in favor of Plaintiff, OMEGA PATENTS, LLC, and against CALAMP CORP., as follows:

a. CALAMP CORP. willfully infringed OMEGA PATENTS, LLC's U.S. Patent No. 6,346,876, Claims 1, 3, 4, 5, 12, 14, and 16; U.S. Patent No. 6,756,885, Claims 1, 2, 3, 12, and 14; U.S. Patent No. 7,671,727, Claims 1, 10, and 11; and U.S. Patent No. 8,032,278, Claims 1, 2, 3, 4, 5, 6, 8, 11, 12, 13, 14, 16, 18, 19, and 21 (collectively, the claims of patents-in-suit);

b. The claims of the patents-in-suit have not been proven invalid or unenforceable;

c. The Court finds this to be an exceptional case and the amount of the damages awarded by the jury shall be trebled;

d. OMEGA PATENTS, LLC, shall be entitled to recover its reasonable attorneys' fees; and

e. The Court will not issue an injunction against further infringement.

Accordingly, it is hereby **ORDERED and ADJUDGED**:

1. Defendant CALAMP CORP. shall pay damages to OMEGA PATENTS, LLC, in the amount of $2,975,200.00, which shall be trebled, for a total amount of **$8,925,600.00**;
2. OMEGA PATENTS, LLC, shall be awarded prejudgment interest in the amount of $302.00 *per diem*, from the date of the verdict on February 24, 2016, to entry of this Final Judgment (393 days) for the total amount of **$118,686.00**;
3. By stipulation of the parties, the Court awards Reasonable Attorney's Fees and Costs to OMEGA PATENTS, LLC, in the amount of **$1,100,000.00**. CalAmp Corp. reserves the right to contest the amount of and/or entitlement to fees in the event that this Final Judgment is modified or overturned as a result of CalAmp Corp.'s motions for judgment as a matter of law and for a new trial, or on appeal.
4. The Court reserves jurisdiction to consider an ongoing royalty for any infringing sales after February 24, 2016. If the parties cannot agree on an appropriate procedure, the parties shall submit legal memoranda outlining any requested relief within thirty (30) days.
5. This Final Judgment incorporates all previous orders in the case. CalAmp Corp.'s agreement to the form of this Final Judgment shall not be construed as a waiver

of CalAmp Corp.'s right to appeal, or to file a renewed motion for judgment as a matter of law pursuant to Fed. R. Civ. P. 50 or a motion for new trial pursuant to Fed. R. Civ. P. 59. The time for filing such motions shall run from the date of the entry of this Final Judgment.

6. Plaintiff OMEGA PATENTS, LLC, shall be awarded Final Judgment in its favor, against Defendant CALAMP CORP., in the amount of **$10,144,286.00**.

FOR WHICH SUM, LET EXECUTION ISSUE.

DONE AND ORDERED in Orlando, Florida on April 24, 2017.

PAUL G. BYRON
UNITED STATES DISTRICT JUDGE

Copies furnished to:

Counsel of Record
Unrepresented Parties

Exhibit 4

UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA
ORLANDO DIVISION

OMEGA PATENTS, LLC,
a Georgia limited liability company,

Plaintiff,

v. Case No: 6:13-cv-1950-Orl-40DAB

CALAMP CORP.,
a Delaware corporation,

Defendant.

ORDER

This cause comes before the Court on the following:

1. Plaintiff's Motion for Claim Construction (Doc. 38), filed September 5, 2014;
2. Defendant Calamp Corp.'s Opening Claim Construction Brief (Doc. 39), filed September 5, 2014;
3. Plaintiff's Opposition to Calamp's Motion for Claim Construction (Doc. 40), filed October 3, 2014; and
4. Calamp Corp.'s Responsive Claim Construction Brief (Doc. 41), filed October 3, 2014.

The Court heard oral argument from the parties on November 24, 2014 (Doc. 46). At the conclusion of the hearing, the Court requested the parties to submit briefs addressing the issue of when and under what circumstances a claim should be construed by the Court. The parties filed briefs on this issue on December 12, 2014. (Docs. 48, 49). In total, the parties request the Court to construe eleven terms across five patents.[1]

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[1] The patents-in-suit include U.S. Patent Nos. 6,346,876 (the "'876 Patent"); 6,737,989

I. BACKGROUND

Plaintiff, Omega Patents, LLC ("Omega"), initiated this patent infringement lawsuit on December 20, 2013 (Doc. 1). Omega then filed a Motion for Claim Construction requesting the Court to construe two claims. (Doc. 38). Defendant Calamp Corp. ("Calamp") filed a claim construction brief requesting the Court to construe nine claims. (Doc. 39). The parties have reached agreement on the construction of the following claim terms: "Controller" and "Multi-vehicle compatible controller." (Doc. 38, p. 1). All of the patents-in-suit were invented by Mr. Kenneth E. Flick, and the technologies at issue involve control systems for vehicles with a data communications bus, which is a computer network within a vehicle, and various codes, signals, and data which monitor particular vehicle characteristics and conditions and which perform or command certain functions, including the operation of certain vehicle devices.

II. LEGAL STANDARDS FOR CLAIM CONSTRUCTION

The Court construes a patent claim as a matter of law. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372 (1996). To construe a claim, the Court begins with the words of the claim itself. *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). Generally, the Court accords the words of a claim "their ordinary and customary meaning," which is "the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (internal quotation marks omitted). Persons of ordinary skill in the art do not read the claim term in isolation, but in the context of the

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(the "'989 Patent"); 6,756,885 (the "'885 Patent"); 7,671,727 (the "'727 Patent"); and 8,032,278 (the "'278 Patent"). (Doc. 38, p. 2).

entire patent. *Id.* at 1313. If the ordinary meaning of claim language is "readily apparent even to lay judges," then claim construction requires "little more than the application of the widely accepted meaning of commonly understood words." *Id.* at 1314. But because the meaning of a claim term as understood by a person skilled in the art is often not immediately apparent, the Court looks to both intrinsic evidence (the words of the claims themselves, the specification, and the prosecution history) and extrinsic evidence (sources such as dictionaries and expert testimony). *Id.*; *Finisar Corp. v. DirecTV Grp., Inc.*, 523 F.3d 1323, 1328 (Fed. Cir. 2008).

The patent's specification is "the single best guide to the meaning of a disputed term," as it may reveal that the patentee intended a special definition to apply to a claim term that differs from its ordinary meaning or that the patentee intentionally disclaimed or disavowed the claim's scope. *Phillips*, 415 F.3d at 1315–16 (internal quotation marks omitted). The Court also considers the prosecution history, which is created by the patentee in an attempt to explain and obtain the patent. *Id.* at 1317. The prosecution history consists of the complete record of proceedings before the Patent and Trademark Office ("PTO") and the prior art cited during the examination of the patent. *Id.* Unlike the specification, which is a final product, the prosecution history is less useful in claim construction because it represents the ongoing negotiations between the PTO and applicant. *Id.*

The Court also looks at the prosecution history "to determine whether the applicant clearly and unambiguously 'disclaimed or disavowed'" an interpretation of claim scope in order to obtain the patent grant. *Middleton, Inc. v. Minn. Mining and Mfg. Co.*, 311 F.3d 1384, 1388 (Fed. Cir. 2002) (quoting *Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d

448, 452 (Fed. Cir. 1985)). A patentee disclaims an interpretation by "clearly characterizing the invention in a way to try to overcome rejections based on prior art," as opposed to simply describing features of the prior art without distinguishing the claimed invention based on those features. *Computer Docking Station Corp. v. Dell, Inc.*, 519 F.3d 1366, 1374–75 (Fed. Cir. 2008). Thus, the Court protects the public's reliance on the definitive statements made during the prosecution by precluding the patentee from "recapturing" through claim construction an interpretation disclaimed during prosecution. *Id.* at 1374 (quoting *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003)). However,

> [I]f the specification expressly defines a claim term and remarks made to distinguish claims from the prior art are broader than necessary to distinguish the prior art, the full breadth of the remark is not a clear and unambiguous disavowal of claim scope as required to depart from the meaning of the term provided in the written description.

Id. at 1375 (internal quotation marks omitted) (quoting *3M Innovative Props. Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1373 (Fed. Cir. 2003)).

Extrinsic evidence, such as expert testimony and dictionary definitions, is helpful but "less significant than the intrinsic record." *Phillips*, 415 F.3d at 1317 (internal quotation marks omitted). However, expert testimony about claim terms that is conclusory, unsupported or "clearly at odds" with the intrinsic evidence is not useful. *Id.* at 1318 (internal quotation marks omitted). Moreover, while dictionaries and treatises are relevant, the Court must ensure that the dictionary definition does not contradict a definition "found in or ascertained by a reading of the patent documents." *Id.* at 1322–23 (quoting *Vitronics*, 90 F.3d at 1584 n.6). "In sum, extrinsic evidence may be useful to the court, but it is unlikely to result in a reliable interpretation of patent claim scope unless considered in the

context of the intrinsic evidence." *Phillips*, 415 F.3d at 1319. In the instant case, the parties agree that the Court need not consider extrinsic evidence to construe the claim terms in dispute, and neither party has presented extrinsic for the Court's consideration.

Several other principles guide the Court's construction of claim terms. First, the Court presumes that the same terms appearing in different portions of the claims have the same meaning, unless the specification and prosecution history clearly demonstrate otherwise. *Fin Control Sys. Pty, Ltd. v. OAM, Inc.*, 265 F.3d 1311, 1318 (Fed. Cir. 2001). While the "[i]nterpretation of a disputed claim term requires reference to the other claims," *Georgia-Pacific Corp. v. U.S. Gypsum Co.*, 195 F.3d 1322, 1331 (Fed. Cir. 1999), "the presence of a dependent claim that adds a particular limitation raises a presumption that the limitation in question is not found in the independent claim." *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004). Courts are further cautioned that "a construction that renders the claimed invention inoperable should be viewed with extreme skepticism." *Talbert Fuel Sys. Patents Co. v. Unocal Corp.*, 275 F.3d 1371, 1376 (Fed. Cir. 2002) (citation omitted), *vacated and remanded on other grounds*, 537 U.S. 802 (2002).

Finally, district courts have an obligation to construe terms when it is necessary to resolve a genuine and material legal dispute between the parties. *See O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co., Ltd.*, 521 F.3d 1351, 1361–62 (Fed. Cir. 2008); *E-Pass Techs., Inc. v. 3Com Corp.*, 473 F.3d 1213, 1219 (Fed. Cir. 2007) ("[A]ny articulated definition of a claim term ultimately must relate to the infringement questions that it is intended to answer."). The party requesting the Court to construe a claim term must demonstrate that the construction is both necessary and correct; that is, construction of

the claim term must be fundamental to issues of infringement or invalidity, and the Court may not issue an advisory opinion. *IP Cleaning S.p.A. v. Annovi Reverberi S.p.A.*, No. 08-cv-147-bbc, 2008 U.S. Dist. LEXIS 102312, at *3 (W.D. Wisc. Dec. 17, 2008).

III. AGREED TERMS

As previously noted, the parties have reached an agreement as to the proper construction of the following two terms:

Claim Term	Agreed Construction
Controller	Electronic circuitry that performs one or more control functions.
Multi-vehicle compatible controller	Electronic circuitry that performs one or more control functions, and can operate with more than one vehicle.

IV. DISPUTED TERMS

Omega filed the initial Motion for Claim Construction, requesting the Court to construe two terms: "transmitter" and "receiver." (Doc. 38). Accordingly, the Court will construe these two claims prior to addressing Calamp's request for construction of nine additional terms.

A. The '876 and '885 Patent Terms: "Transmitter" and "Receiver"

Claim Term	Omega's Construction	Calamp's Construction
Transmitter	Radio frequency transmitter.	Device that sends signals.
Receiver	Radio frequency receiver.	Device that receives signals.

The terms "transmitter" and "receiver" are used in asserted claims of the '876 Patent (Doc. 39-1) and the '885 Patent (Doc. 39-2). Turning first to the construction of "transmitter," Calamp contends that the patents describe the transmitter as sending

signals without restricting the specific type of signals being sent—that is, without limiting the construction to require "radio frequency." (Doc. 39, p. 21). Calamp submits that the '876 and '885 Patents do not specifically define transmitter to limit the meaning of that term as commonly understood by individuals skilled in the art.[2] (*Id.* at p. 22). Similarly, Calamp contends that "receiver" is described in the patents as receiving signals and is not restricted to radio frequency signals. (*Id.* at p. 23).[3]

Omega submits that Calamp's construction and citation to the specifications of the '876 and '885 patents fail to place the terms "transmitter" and "receiver" into the context of the invention which Omega argues envisions remote control systems for a vehicle. (Doc. 38, p. 6). Omega proposes that the Court need only consider the claims, read in light of the specification, to comprehend that the invention focuses upon a remote control system for cars. (*Id.*). Omega directs the Court to the '551 Patent, noting that both the '876 and '885 Patents claim priority back to the '551 Patent. The Court agrees with Omega that both the '876 and '885 Patents are continuations-in-part and claim priority back to the '551 Patent. (*Id.* at p. 7). The background to the '551 Patent provides:

> The concepts and features of the invention may also be desirably incorporated in a remote control system for a vehicle, such as a vehicle security system, a remote engine starter system, or a remote keyless entry system, for example. The remote control system preferably comprises a remote transmitter and a receiver within the vehicle for receiving a signal from the remote transmitter.[4]

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[2] Calamp directs the Court to the '876 Patent at 3:5–12; 3:63–4:9; 4:14–28; 4:33–36; 5:35–54; 5:55–6:2; 6:3–16; 6:17–27, and cites the '885 Patent at 3:5–12; 3:49–62; 4:5–8 4:9–24; 5:16–24; 5:35–62; 5:64–6:8. (Doc. 39, p. 22).

[3] Calamp cites the same specification language as was relied upon for its proposed construction of "transmitter."

[4] References to the column and lines within a given specification shall be denoted by the column number and line numbers. For example, column 1, lines 2–10 are denoted as 1:2–10.

(Doc. 38-3, 4:12–18).

As noted by counsel for Omega at the *Markman* hearing, Figure 1 of the '551 Patent depicts a remote transmitter/receiver, denoted as TX/RX (13), with an antenna (13a). (*Id.* at Fig. 1; 5:12–15). Similarly, Figure 2 of the '551 Patent also depicts a remote transmitter (57, 57a). (*Id.*, Fig. 2; 5:51–6:21). Figures 7, 8, and 9 of the '551 Patent also illustrate a radio frequency ("RF") transmitter and receiver and an antenna for communicating with various devices. [5] (*Id.*, Figs. 7–9, 8:1–35).

Omega next directs the Court to the abstract of the '876 Patent which describes "[a] control system [that] includes a transmitter and a receiver for receiving signals from the remote transmitter, and a multivehicle compatible controller cooperating with the transmitter and receiver." (Doc. 39-1). Similarly, the abstract of the '885 Patent describes the invention and states "[t]he approach is useful for a number of vehicle remote control functions including vehicle security, remote keyless entry and remote starting." (Doc. 39-2). While claim 1 of the '876 and '885 Patents do not describe the transmitter or receiver as remote, wireless, or receiving a RF signal, Omega correctly notes that no dependent claim in either patent limits the transmitter or receiver to a hardwired device. To the contrary, several dependent claims in the '876 and '885 Patents describe and discuss remote transmitters and receivers, including dependent claims 13–18 and 30–32 of the '876 Patent (Doc. 39-1) and claims 8, 12–15, 22–23, and 26–31 of the '885 Patent. (Doc. 39-2).

Based on the foregoing, the Court concludes that the dependent claims in the '876 and '885 Patents do not contain limitations or language requiring the Court to limit the

[5] Figures 1, 2, 7, 8, and 9 of the '551 Patent appear in Appendix A to this Order.

scope of the independent claims. Accordingly, the independent claims may properly be construed in the context of the patent specifications and in view of the '551 Patent to provide for remote control functions. Therefore, the Court construes the terms "transmitter" as **radio frequency transmitter** and the term "receiver" as **radio frequency receiver**, adopting the construction proposed by Omega.

B. The '876, '885, '727, and '278 Patent Terms: "Data Communication Bus/ Vehicle Data Communications Bus/ Vehicle Data Bus"

Claim Term	OMEGA's Construction	CALAMP's Construction
Data communication bus	*No construction needed; alternatively, it should be defined as follows:* Wired connection for communication of digital messages among vehicle devices, with each message including one or more device addresses	Wired connection for transferring data to and from vehicle devices

The term "data communication bus" is used in the '876 (Doc. 39-1) and '885 Patents (Doc. 39-2). The term "vehicle data communications bus" is used in the '727 Patent. (Doc. 39-3). The term "vehicle data bus" is found in the '278 Patent. (Doc. 39-4). Calamp asks the Court to construe these three sets of terms appearing in patents '876, '885, '727, and '278, arguing that construction is necessary to assist the jury.

Calamp contends that in all of the patents-in-suit, the data communication bus is described as a wired connection for transferring data to and from vehicle devices. (Doc. 39, p. 11). Calamp cites the '876 Patent specification which states, "Digital messages

are communicated to all modules over the data communications bus." (Doc. 39-1, 2:18–19). Calamp further refers the Court to the '885 Patent specification language which is identical to the '876 language. (Doc. 39-2, 2:18–19). Calamp also quotes the '278 Patent, which provides, "This and other objects, features, and advantages in accordance with the present invention are provided by a multi-vehicle compatible tracking unit for a vehicle comprising a *vehicle data bus extending throughout the vehicle*." (Doc. 39-4, 2:50–53) (emphasis added). Finally, Calamp cites to the '727 Patent which similarly provides for a "vehicle data bus extending throughout the vehicle."[6] (Doc. 39-3, 2:44–45).

Omega submits that Calamp incorrectly seeks a construction which requires data transfer both to and from vehicle devices, whereas the patents-in-suit do not require two-way commands transferred on the bus. (Doc. 40, p. 4). Omega directs the Court to the plain language of claim 1 of the '876 Patent which provides, in pertinent part:

> 1. A control system for a vehicle comprising a data communications bus and at least one vehicle device connected to the data communications bus, the control system comprising:
>
> . . . .
>
> a multi-vehicle compatible controller at the vehicle and cooperating with said transmitter and receiver, said multi-vehicle compatible controller *generating at least one set of command signals on the data communications bus* for at least one vehicle device . . . .

(Doc. 39-1, 11:30–42) (emphasis added). Omega reasons that the plain language of claim 1 of the '876 Patent instructs the reader that at least one signal is generated, or sent, to at least one vehicle device. (Doc. 40, p. 5). The use of the term "generating" indicates

[6] The Court notes that none of the language cited by Calamp contained within the various patents-in-suit requires two-way communication of messages along the bus.

sending a signal and does not require a signal to be both sent to a device and received from a device.

When one considers the background to the invention, as stated in the '876 Patent, it is clear that a signal may be generated or sent along the bus to a vehicle device without a return signal being sent from the device to the bus. For example, the background to the '876 Patent states that an "alarm indication may typically be a flashing of the lights and/or the sounding of the vehicle horn or a siren." (Doc. 39-1, 1:35–37). Such an alarm may consist of a signal being generated and sent to the device without the device sending a return signal along the bus. One skilled in the art need only read the description of preferred embodiments for the '885 Patent to understand that the data communications bus controls complex and simple functions within the vehicle. "In other words, the vehicle devices connected to the data bus may be considered to be relatively simple devices, such as sensors, or more complicated devices with some internal processing, such as may generally be considered as controllers." (Doc. 39-2, 6:48–52). The simple devices, such as sensors, receive a signal generated and sent to the device without sending a reply to the controller. Accordingly, giving the words of the claim(s) their ordinary and customary meaning that the term would have to those skilled in the art, and taking the term within the context of the entire patent, the terms "data communications bus," "vehicle data communications bus," and "vehicle data bus" do not envision or require the transference of data "to and from" vehicle devices.

Calamp next proposes that Omega's insertion of device "addresses" in their proposed definition of the above terms is not supported by the patents-in-suit. (Doc. 39, p. 12). Calamp argues that the term "address" is an optional feature in the systems

described in the '876 and '885 Patents. (*Id.*). Calamp cites the '885 Patent specification to support this interpretation, which reads, "Each message *may* have one or more addresses associated with it so that the devices can recognize which messages to ignore and which messages to respond to or read." (Doc. 39-2, 2:20–22) (emphasis added). However, the Court finds that this quote is taken out of context. The context is found in the following excerpt:

> With multiplexing technology, the various electronic modules or devices may be linked by a single signal wire in a bus also containing a power wire, and one or more ground wires. Digital messages are communicated to all modules over the data communications bus. Each message may have one or more addresses associated with it so that the devices can recognize which message to ignore and which message to respond to or read.

(*Id.* at 2:16–22). Therefore, the word "may" cannot reasonably be interpreted to suggest that associating an address with a message is optional. Rather, each message will have at least one and perhaps multiple addresses associated with it, depending on the number of electronic modules or devices linked by the command bus. The Court finds that the presence of at least one address is fundamental to the functioning of the invention.[7]

Based on the foregoing, the Court construes the term "data communications bus" as used in the '876 (Doc. 39-1) and '885 Patents (Doc. 39-2), "vehicle data communications bus" as used in the '727 Patent (Doc. 39-3), and "vehicle data bus" as found in the '278 Patent, collectively "data communication bus" as follows: **"wired connection for communication of digital messages among vehicle devices, with each message including one or more device addresses."**

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[7] While the '727 and '278 Patents do not specifically reference an address, one skilled in the art at the time of the invention would understand a vehicle data communications bus to require one or more addresses in order to control or read a device.

C. The '876, '885, '727, '278 Patent Term: "Vehicle Device"

Claim Term	OMEGA's Construction	CALAMP's Construction
Vehicle device	No construction needed	Electrical or electronic component in a vehicle that can be controlled and/or the status thereof read

Calamp contends the term "vehicle device" should be construed by the Court because the term is broad and susceptible to many meanings. (Doc. 39, p. 13). The parties agree that claim terms should be construed by the Court when it is necessary to resolve a genuine and material legal dispute between the parties or when necessary to aid the jury in understanding claim terms. Calamp's proposed construction of the term "vehicle device" is taken verbatim from the '876 and '885 Patents, with closely analogous language found in the '727 and '278 Patents. (*Id.*). Since Calamp's proposed construction of "vehicle device" is taken from the patents-in-suit, the Court need not construe the claim term. The definition is not in dispute, nor is additional construction necessary to aid the jury in understanding the claim term. Calamp's request to construe the term "vehicle device" is denied.

D. The '876 Patent Term: "Command Signal"

Claim Term	OMEGA's Construction	CALAMP's Construction
Command signal	*No construction needed; alternatively, it should be defined as follows:* Signal generated on the data communications	Signal generated on the data communications bus for operating a vehicle device to cause a desired function to be performed at the vehicle

	bus for operating a vehicle device	

The term "command signal" appears in claims of the '876 Patent. Calamp contends the '876 Patent, when read in its entirety, supports construction of the term "command signal" as requiring that the signal causes a desired function to be performed. (Doc. 39, p. 14). Calamp notes that the specifications include the following language: "will cause an operation or response from the vehicle device." (Doc. 39-1, 3:16–20). Defendant quotes portions of the specifications which state command signals may be "for operating" a specific vehicle device. (*Id.* at 3:39, 41–45; 5:45–49).

Omega submits that claim 1 of the '876 Patent clearly states that not every command signal will cause an operation or response from a vehicle device:

> 1. A control system for a vehicle comprising a data communications bus and at least one vehicle device connected to the data communications bus, the control system comprising:
>
> . . . .
>
> a multi-vehicle compatible controller at the vehicle and cooperating with said transmitter and receiver, said multi-vehicle compatible controller generating at least one set of command signals on the data communications bus for at least one vehicle device, the at least one set of command signals comprising at least *one working and at least one non-working command signal* for a given vehicle to thereby provide command compatibility with a plurality of different vehicles.

(*Id.* at 11:30–48) (emphasis added).

The claim makes it clear that the control system uses a working and non-working command signal because "multiple signals or codes can be generated on the data communications bus, and only that code for the *given vehicle and device* will cause an operation or response from the vehicle device." (*Id.* at 3:17–20) (emphasis added). Further, "an object of the invention [is] to provide a control system and related method for

a vehicle comprising a data communications bus and at least one vehicle device connected to the data communications bus, and wherein the system is *adapted to operate with different vehicles.*" (*Id.* at 2:66–3:4) (emphasis added). Since the system is designed to operate with a variety of vehicle platforms, not every signal generated on the data communications bus will cause a function to be performed. In order for a signal to cause a function to be performed, the signal must be received by a device contained within a compatible vehicle platform.[8] Accordingly, Calamp's proposed construction incorrectly includes within the definition of the "command signal" the requirement that a signal generated on the data communication bus must always cause a desired function to be performed.

Based on the foregoing, the Court construes "command signal" as follows: **"signal generated on the data communications bus for operating a vehicle device."**

E. The '876 and '885 Patent Term: "Device Code"

Claim Term	OMEGA's Construction	CALAMP's Construction
Device codes	*No construction needed; alternatively, it should be defined as follows:* Signal to or from a vehicle device	Signal from a vehicle device read on the vehicle bus. *Amended at the Markman hearing as follows:* Signal from a vehicle device read on the vehicle bus and/or stored in the controller

Calamp asserts that the '876 and '885 Patents describe "device code" as a signal from a vehicle device that is read on the vehicle bus. (Doc. 39, p. 15). Calamp's

[8] "In other words, multiple signals or codes can be generated on the data communications bus, and only that code for the given vehicle will cause an operation or response from the vehicle device." (Doc. 39-2, 7:31–34).

proposed construction is based on select language from the '876 and '885 Patents. For example, both the '876 and '885 Patents discuss "reading a device code *from* the data communications bus." (Doc. 39-1, 9:22–23; Doc. 39-2, 3:12-13) (emphasis added). The complete text of the specification is, as always, helpful in construing the claim terms:

> More particularly, the multi-vehicle compatible controller is for storing a set of device codes for a given vehicle device for a plurality of different vehicles, for reading a device code from the data communications bus, and for determining a match between a read device code and the stored device codes to thereby provide compatibility with a plurality of different vehicles.

(Doc. 39-1, 9:19–25).

The '885 Patent further elaborates upon the manner in which the multi-vehicle compatible controller functions:

> Moreover, the multi-vehicle compatible controller is also for storing a set of device codes for a given vehicle device for a plurality of different vehicles, for reading a device code from the data communications bus, and for determining a match between a read device code and the stored device codes to thereby provide compatibility with a plurality of different vehicles.

(Doc. 39-2, 3:10–16). Both of these patents clearly state that when a device code is read, it is read "from" the data communications bus and not "on" the vehicle bus. To the extent Calamp's proposed construction describes the signal from the vehicle device as being read "on" the vehicle bus, the claims and specifications of the pertinent patents contradict this interpretation.

The next issue is whether the device codes travel "from" a vehicle device, as Calamp contends, or travels "to and from" a vehicle device, as Omega suggests. As previously discussed, the relevant specifications state: "[T]he multi-vehicle compatible controller is also for storing a set of device codes for a given vehicle device for a plurality

of different vehicles, for reading a device code from the data communications bus [and determining whether a match exists] . . . ." (*Id.*). The specifications, therefore, certainly state that device codes, or signals, are stored on the multi-vehicle compatible controller, and codes received from the data communications bus can be read to determine if the stored code matches the code received from the data communications bus. The claims and specifications do not describe any scenario wherein the device code is a signal sent "to" a vehicle device, which appears to be accomplished by command signals. Omega does not direct the Court to any intrinsic evidence to support its contention that a device code, or signal, travels both to and from a vehicle device.

Based on the foregoing, the Court agrees with Calamp that the claims and specifications of the pertinent patents-in-suit describe "device codes" as **signal from a vehicle device.** The Court, however, declines to adopt Calamp's construction to the extent it describes device codes as being "read on the vehicle bus." The description proffered by Calamp is contradicted by the clear wording of the claims and specifications, which state the signal or code is read "from" the bus and not "on" the bus. Additionally, Calamps's construction focuses on the signal being "read" and fails to address the storage of device codes and the comparison of stored codes to codes received from the communications bus. The Court finds it is not necessary to include a partial description of how device codes are utilized by the multi-vehicle compatible controller, because the ordinary meaning of the claim language relative to the uses made of the device codes is readily apparent to those skilled in the art.

Thus, the term "device codes" is construed by the Court to mean: **"signal from a vehicle device."**

F. The '885 Patent Term: "Function"

Claim Term	OMEGA's Construction	CALAMP's Construction
Function	*No construction needed; alternatively, it should be defined as follows:* An operation of a vehicle device	An operation of a vehicle device, such as remote starting the engine, remotely unlocking the vehicle doors, or changing the mode of a security system between armed and disarmed

Calamp contends that the definition of the term "function" found in claim 24 of the '885 patent should be limited to the three embodiments identified in Calamp's proposed claim construction. (Doc. 39, p. 17). Omega asserts the term "function" does not require construction because the ordinary meaning of the claim language is readily apparent to persons of ordinary skill in the art and even to lay judges. (Doc. 40, pp. 9–10). The Court agrees that the claim language is sufficiently clear and unambiguous to enable an individual of ordinary skill in the art, as well as lay judges, to apply the language in the context of this litigation.

The patent states the invention may be embodied in "many different forms and should not be construed as limited to the illustrated embodiments set forth herein." (Doc. 39-2, 4:63–65). The term "function" is self-evident from the context of the list of embodiments:

> The second transmitter/receiver pair may be used to cause a *desired function* to be performed at the vehicle, such as remote starting the engine, remotely unlocking the vehicle doors, or changing the mode of a security system between armed and disarmed modes, for example. Many other similar applications are contemplated by the present invention as will be appreciated by those skilled in the art.

(*Id.* at 5:24–31) (emphasis added). Clearly, a function is the operation of one of the vehicle devices. Accordingly, the Court declines to construe this term.

G. The '727 Patent Term: "Remote Vehicle Speed Exceeded Notification"

Claim Term	OMEGA's Construction	CALAMP's Construction
Remote vehicle speed exceeded notification	*No construction needed; alternatively, it should be defined as follows:* Notification sent when a vehicle speed exceeds a speed threshold for a first time period	A message sent from a vehicle indicating that the vehicle speed has exceeded a particular speed

The term "remote vehicle speed exceeded notification" is found in the '727 Patent. Calamp proposes a construction of the term which emphasizes that the message indicating that a preset speed has been exceeded is sent "from" the vehicle. (Doc. 39, p. 18). Calamp asserts that the patent, and Omega's proposed construction, fail to state that the message originates from within the vehicle. (*Id.*). Omega argues that no construction is required because the ordinary meaning of the claim language is readily apparent. (Do. 40, p. 11). The Court agrees with Omega and finds that the term "remote vehicle speed exceeded notification" does not require construction or clarification.

Claim 1 of the '727 Patent clearly identifies that the speed exceeded notification device includes "at least one vehicle device *generating* data related to vehicle speed." (Doc. 39-3, 7:6–7) (emphasis added). Therefore, the message is clearly sent from the vehicle, where the vehicle devices reside. The claim language further states that the

device determines "when a vehicle speed exceeds a speed threshold *for the first time period*" and sends a remote vehicle speed exceeded notification. (*Id.*) (emphasis added). That is, a device internal to the vehicle sends the notification outside of the vehicle. To the extent the patent provides for multiple speed exceeded notifications being sent from the vehicle, the claim language clearly addresses the manner in which this is accomplished. (*Id.* at 7:18–22, 27–29).

Based on the foregoing, the Court declines Calamp's request for construction of the term "remote vehicle speed exceeded notification."

H. The '278 Patent Term: "Downloading Interface"

Claim Term	OMEGA's Construction	CALAMP's Construction
Downloading interface	No construction needed	Connection that can receive data

Calamp asserts that the term "downloading interface" is unclear and may result in jurors concluding the term involves a software interface for downloading or some other type of interface. (Doc. 39, p. 19). Calamp contends that the patent describes the downloading interface as "hardware" or a connection to the tracking unit. (*Id.*). However, the plain language of the patent describes downloading interface more broadly. The patent provides the following variety of methods for data to be received from the downloading interface:

> The downloading interface may comprise either a wired or wireless signal downloading interface. The wired signal downloading interface may comprise a connector for temporary connection to a downloading device, for example. The wireless signal downloading interface may include a wireless receiver for temporary connection

> to a downloading device . . . . The downloading interface may also be for permitting downloading of at least one programming instruction for the multi-vehicle compatible controller, in some embodiments.

(Doc. 39-4, 3:4–16). The summary of the invention, cited above, tracks the language found in claims 1, 2, 4, and 8. (*Id.* at 25:63–26:39).

The ordinary meaning of "download interface" is readily apparent to persons of ordinary skill in the art. To the extent one may desire additional context for the term "downloading interface," that context is found in the background and summary of the invention. The background statement provides, "For a company with hired drivers, it may be desirable to know the driver's whereabouts during the course of the day. Similarly, a rental car agency or other fleet operator, for example, may wish to know the whereabouts of its fleet of vehicles." (*Id.* at 1:37–41). To facilitate these objectives, the summary of the invention informs the reader that, "[t]he tracking unit may also include a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code . . . ." (*Id.* at 2:63–66). The embodiment section of the patent further educates the reader that data received via the downloading interface may provide a number of pieces of information regarding the vehicle, including whether the vehicle is being moved by an unauthorized driver, whether the vehicle is being broken into, whether the vehicle is being driven in excess of an authorized speed, and the like. (*Id.* at 11:36–12:10).

Accordingly, the ordinary meaning of the language of the patent, including the term downloading interface, instructs the reader, including lay judges and jurors, of the type of data transmitted from the vehicle device and the manner of its transmission: wired,

wireless, and for permitting downloading of at least one programming instruction, for example. A downloading interface is, therefore, not limited to a hardwired connection.

Based on the foregoing, the Court declines to construe the term "downloading interface."

I. The '278 Patent Term: "Enabling Data"

Claim Term	OMEGA's Construction	CALAMP's Construction
Enabling data	*No construction needed; alternatively, it should be defined as follows:* Data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller	A vehicle device code or codes, and instruction to select a code or codes, or the data or sequence to allow the controller to generate a vehicle device code or codes

The term "enabling data" appears in the '278 Patent. (Doc. 39-4). Calamp avers that the term lacks any common meaning or specific structure to one of ordinary skill in the art and should be construed. (Doc. 39, p. 20). Calamp acknowledges the term enabling data is referenced in several places, but submits the term is not defined other than at column 24, lines 8–12 of the '278 Patent. (*Id.*) The specification provides, in pertinent part:

> The multi-vehicle compatible tracking unit also illustratively includes a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller. The enabling data may be the vehicle device code or codes, an instruction to select a code or codes from among those already stored, or the data or sequence

> to allow the controller to generate the vehicle device code or codes, for example.

(Doc. 39-4, 24:4–12). Other references to "enabling data" include references to figures within the patent, stating, "Enabling data related to at least one corresponding vehicle device code for use by the multi-vehicle compatible controller is downloaded via a downloading interface." (*Id.* at 25:14–16).

Calamp suggests that any construction of enabling data should be limited to claim 1 of the '278 Patent (Doc. 39-4, 26:13–15), which provides, in part, "[E]nabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller." (Doc. 40, p. 13). Omega objects to Calamp's inclusion of some of the preferred embodiments into their proposed definition, citing *Northern Telecom Ltd. v. Samsung Elecs. Co.*, 215 F.3d 1281, 1293 (Fed. Cir. 2000) ("This court consistently declines to construe claim terms according to the preferred embodiment."). The Court agrees that Calamp's proffered construction improperly restricts or narrows the scope of this term.

Based on the foregoing, the Court construes the term "enabling data" as follows: **data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.**

J. The '278 Patent Term: "Programming Instruction"

Claim Term	OMEGA's Construction	CALAMP's Construction
Programming instructions	No construction needed	Code which instructs the controller to perform an operation

The term "programming instructions" is found in the '278 Patent. (Doc. 39-4). Calamp submits that this term should be construed by the Court because the term is susceptible to multiple meanings. (Doc. 39, p. 21). Omega advised the Court during the *Markman* hearing that it does not object to Calamp's proposed construction. The Court therefore adopts Calamp's proposed construction.

V. CONCLUSION

The Court adopts the following constructions:

CLAIM TERM	AGREED CONSTRUCTION
Controller	Electronic circuitry that performs one or more control functions.
Multi-vehicle compatible controller	Electronic circuitry that performs one or more control functions, and can operate with more than one vehicle.

[ORDER CONTINUES ON FOLLOWING PAGE]

CLAIM TERM	COURT'S CONSTRUCTION
Transmitter	Radio frequency transmitter.
Receiver	Radio frequency receiver.
Data communication bus/ vehicle data communications bus/ vehicle data bus	Wired connection for communication of digital messages among vehicle devices, with each message including one or more device addresses.
Vehicle device	Plain meaning
Command signal	Signal generated on the data communications bus for operating a vehicle device.
Device codes	Signal from a vehicle device.
Function	Plain meaning
Remote vehicle speed exceeded notification	Plain meaning
Downloading interface	Plain meaning
Enabling data	Data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.
Programming instructions	Code which instructs the controller to perform an operation.

DONE AND ORDERED in Orlando, Florida on February 20, 2015.

PAUL G. BYRON
UNITED STATES DISTRICT JUDGE

Copies furnished to:

Counsel of Record

APPENDIX A

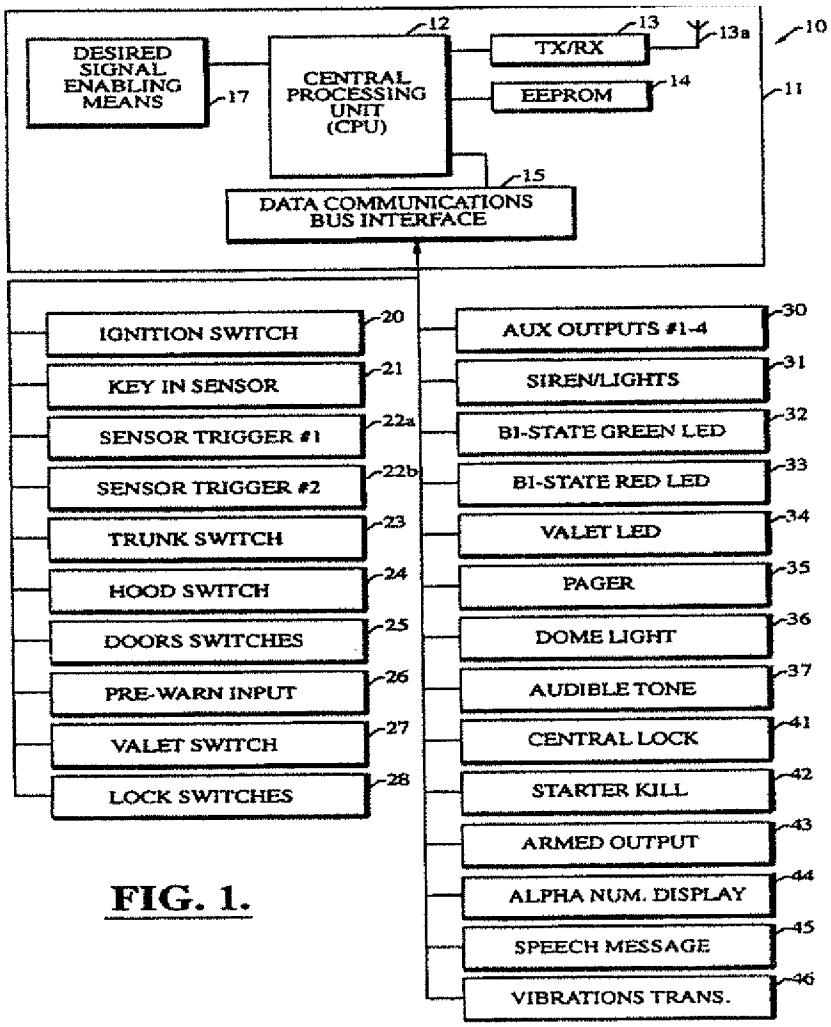


FIG. 1.

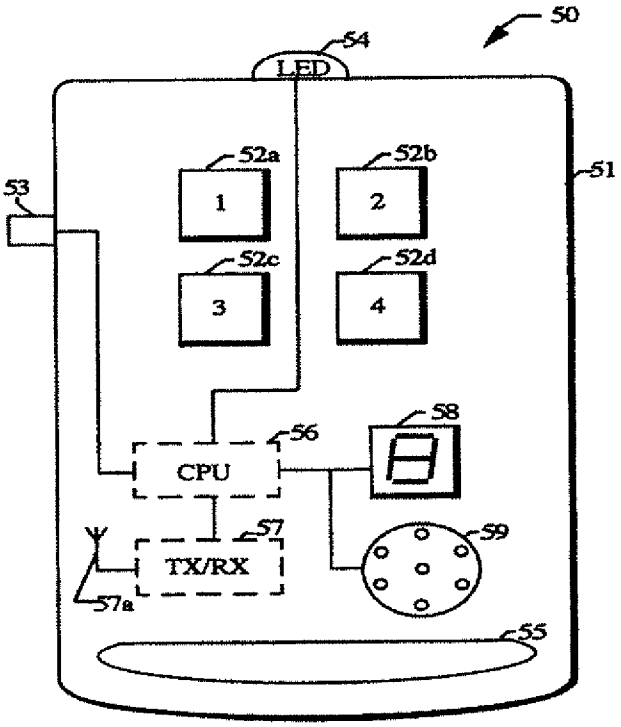

50
54
LED
52a
1
52b
2
53
51
52c
3
52d
4
58
56
CPU
57
TX/RX
57a
59
55

FIG. 2.

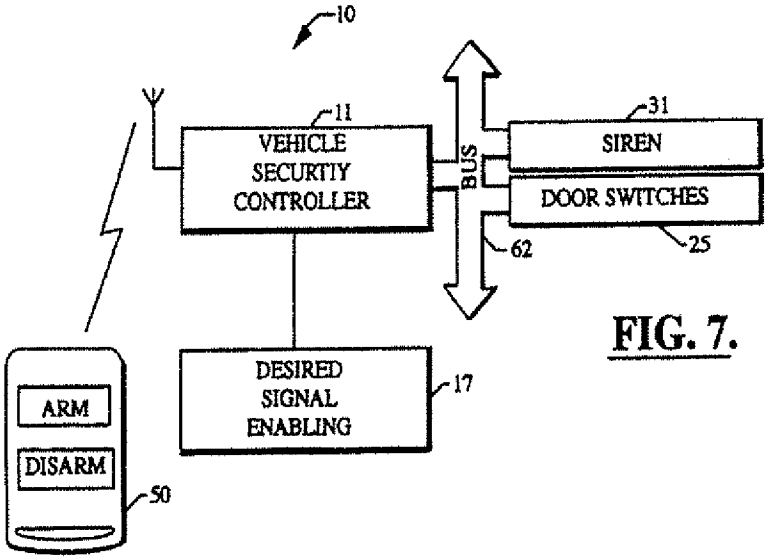

10
11
VEHICLE
SECURTIY
CONTROLLER
BUS
31
SIREN
DOOR SWITCHES
62
25
DESIRED
SIGNAL
ENABLING
17
ARM
DISARM
50

FIG. 7.

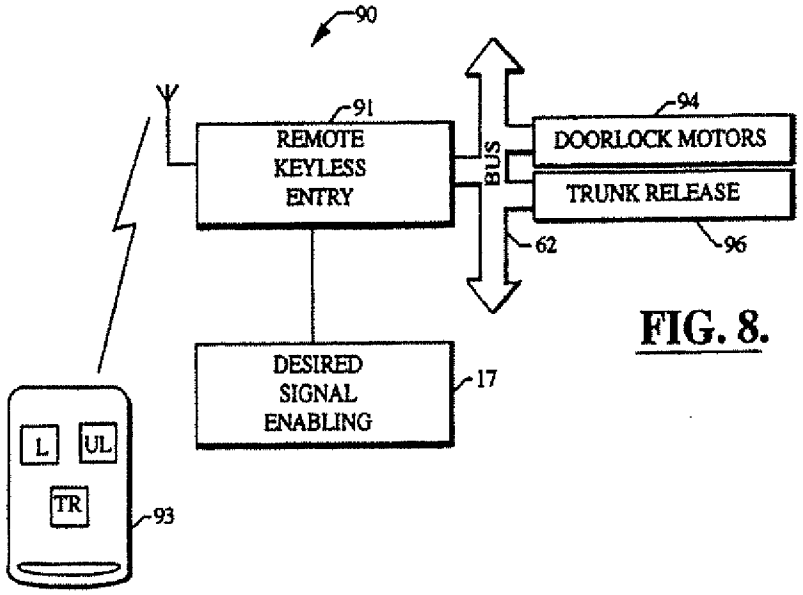

90
91
REMOTE KEYLESS ENTRY
BUS
94
DOORLOCK MOTORS
TRUNK RELEASE
62
96
DESIRED SIGNAL ENABLING
17
L
UL
TR
93

FIG. 8.

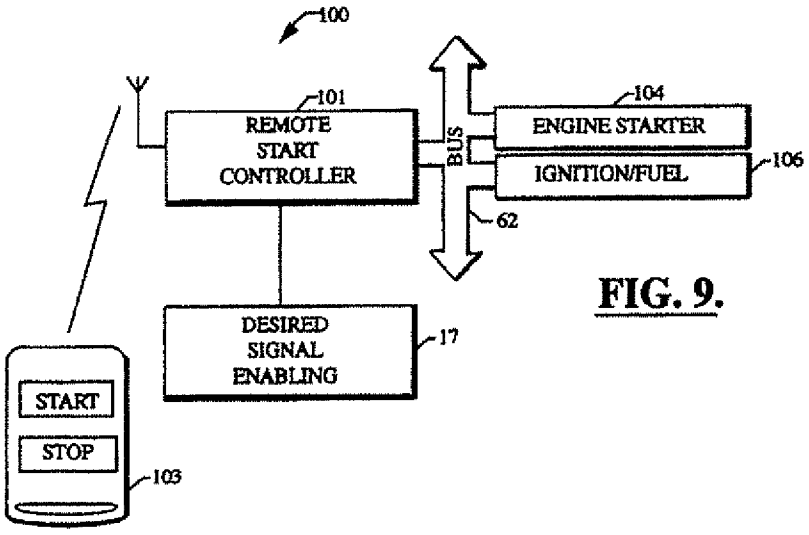

100
101
REMOTE START CONTROLLER
BUS
104
ENGINE STARTER
IGNITION/FUEL
106
62
DESIRED SIGNAL ENABLING
17
START
STOP
103

FIG. 9.

REMARKS

The Patent Owner thanks the Examiner for the careful and thorough reexamination of the present application, and thanks the U.S. Patent and Trademark Office and the Examiners for extending all courtesies to the Patent Owner's Representatives during the telephonic interview of June 1, 2017. The Patent Owner files herewith under separate cover an Interview Summary.

The Patent Owner includes herewith a Rule 132 Declaration from Joseph C. McAlexander, III in support of the arguments for patentability. Mr. McAlexander has served as the technical consultant during the related litigation with the Requester, and the consultant for all of the related reexaminations initiated by the Requester, described in greater detail below.

The Patent Owner submits that all of the claims are patentable, presents arguments herein supporting such patentability, and respectfully requests that the Examiner withdraw all pending rejections and issue a Reexamination Certificate confirming all claims as patentable.

I. Background

A. The Related Litigation

The status of the related litigation between the Requester and the Patent Owner is as follows. Patent Owner filed its complaint alleging patent infringement against the Requester on December 20, 2013. After extensive discovery, including discovery from the trial experts, the trial commenced on February 16, 2016 and concluded on February 24, 2016. The jury found that all of asserted claims from all four of the

asserted patents were infringed, and, as particularly relevant in this reexamination, that all of the asserted claims were not invalid -- rejecting Requester's invalidity contentions (Jury Verdict, Exhibit 1).

Attached as Exhibit 2 is the Court's Final Order dated April 6, 2017. The Court has determined that the *claims asserted by the Patent Owner (including those in the '278 patent) were not invalid, and that infringement by the Requester was willful. The Patent Owner has been awarded treble damages of $8,925,600; prejudgment interest; and attorneys' fees*. The asserted claims from the '278 patent include Claims 1-6, 8, 11-16, 18, 19 and 21.

Also attached as Exhibit 3 is the Court's Final Judgment of April 24, 2017 which includes a calculation for interest, and stipulated attorneys' fees, bringing the final judgment amount to $10,144,286. The parties entered a stipulation as to supplemental damages of an additional $4,860,009.66 for the period from the jury's verdict until the Court's Final Order, and agreed to a doubling of the jury-awarded license rate of $6.38 for continuing sales thereafter.

Requester has obtained an order for a stay of execution of judgment based upon posting a supersedeas bond in the amount of $17,000,000.00. Requester has filed a renewed motion for judgment as a matter of law and for a new trial, and has just filed a motion to vacate the judgment for lack of venue. These motions are pending.

At trial, Requester offered failed theories of invalidity of the '278 patent based upon a combination of U.S. Patent No. 5,898,392 (Bambini et al.) and the SAE Publication

J1978, titled "OBD Scan Tool"; and a combination of U.S. Patent No. 5,732,074 (Spaur et al.) and SAE J1978. The SAE J1978 document is among the compendium of SAE documents found in the SAE HS-3000 Manual.

B. The First Reexamination

The Requester filed a first reexamination (90/013,587) of the '278 patent on September 14, 2015, just prior to the scheduled start of trial which was postponed. In that first reexamination, Requester initially presented invalidity positions based on: (1) U.S. Patent No. 6,028,537 (Suman et al.) alone; (2) U.S. Patent No. 5,732,074 (Spaur et al.) alone; and (3) Spaur et al. in combination with various secondary references. Requester added additional invalidity positions based on: (1) U.S. Patent No. 6,009,363 (Beckert et al.) alone; (2) U.S. patent No. 7,484,008 (Gelvin et al.) alone; and Published Application 2001/0033225 (Razavi et al.) alone.

All of these invalidity positions of Requester were carefully considered and overcome as the Patent Office issued a Notice of Intent to Issue a Reexam Certificate on December 1, 2016, and issued a Reexamination Certificate on December 28, 2016.

The second reexamination request was filed after the Patent Owner's response in the first reexamination, and before the decision of the Patent Office to confirm patentability of the claims. This second reexamination request asserted invalidity positions based upon the same recycled Beckert et al., Spaur et al., and Suman et al. patents - sometimes in combination with an SAE document compendium, SAE HS-3000 which

includes the SAE J1978 reference asserted at trial. The SAE HS-3000 is titled "SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual" (1994 Edition). Beckert et al. was asserted alone, and in combination with SAE HS-3000. Suman et al. was asserted alone, and in combination with SAE HS-3000. Spaur et al. was asserted in combination with SAE HS-3000.

Requester did add a new "old art" reference, Chou et al., to the request leading to this second reexamination. Despite the Requester's arguments to the contrary, Chou et al. is not a new reference. Indeed, Chou et al. was considered in the original prosecution of the '278 patent as correctly noted by the Examiner on page 41 of the Reexam Order Determination dated December 15, 2016.

Chou et al. is cited in the '278 parent patent, U.S. Patent No. 7,720,597; grandparent patent, U.S. Patent No. 7,149,623; and great-grandparent, U.S. Patent No. 6,606,561. The MPEP provides that in continuation applications "[t]he examiner will consider information which has been considered by the Office in a parent application ... A listing of the information need not be resubmitted in the continuing application unless the applicant desires the information to be printed on the patent." (MPEP §609.02II.A.2.; emphasis added).

C. Other Related Reexaminations

The Requester has filed reexamination requests against the three other patents of the Patent Owner found to be willfully infringed by the Court in the related litigation. This is the list of the other reexaminations:

U.S. Patent No. 6,756,885; Reexamination 90/013,741 - filed April 28, 2016

U.S. Patent No. 6,346,876; Reexamination 90/013,659 - filed December 11, 2015.

U.S. Patent No. 7,671,727: Reexamination 90/013,832 - filed October 12, 2016.

The Examiner is encouraged to consider each of these other reexamination proceedings; however, it is noted that the '885 and '876 patent reexaminations also deal with proposed prior art combinations including the SAE HS-3000 Manual.

II. The Pending Claims

The claimed invention, as recited in independent Claim 1, for example, is directed to a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle. The multi-vehicle compatible tracking unit comprises a vehicle position determining device, a wireless communications device, and a multi-vehicle compatible controller for cooperating with the vehicle position determining device and the wireless communications device to send vehicle position information. The multi-vehicle compatible controller is to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. The multi-vehicle compatible tracking unit comprises a downloading interface for permitting

downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller.

Independent Claims 13 and 18 are directed to related multi-vehicle compatible vehicle tracking units. Independent Claim 13 recites that the downloading interface includes a connector for temporary connection to a downloading device. Independent Claim 18 recites that the downloading interface includes a wireless receiver for temporary connection to a downloading device.

III. Claim Construction

For the Examiner's convenience, attached is the Court's *Markman* Order for the related litigation (Exhibit 4). The claim terms are summarized in the following tabular portions of the Court's *Markman* Order:

CLAIM TERM	AGREED CONSTRUCTION
Controller	Electronic circuitry that performs one or more control functions.
Multi-vehicle compatible controller	Electronic circuitry that performs one or more control functions, and can operate with more than one vehicle.

CLAIM TERM	COURT'S CONSTRUCTION
Transmitter	Radio frequency transmitter.
Receiver	Radio frequency receiver.
Data communication bus/ vehicle data communications bus/ vehicle data bus	Wired connection for communication of digital messages among vehicle devices, with each message including one or more device addresses.
Vehicle device	Plain meaning
Command signal	Signal generated on the data communications bus for operating a vehicle device.
Device codes	Signal from a vehicle device.
Function	Plain meaning
Remote vehicle speed exceeded notification	Plain meaning
Downloading interface	Plain meaning
Enabling data	Data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.
Programming instructions	Code which instructs the controller to perform an operation.

Consistent with the Examiner, neither of the parties raised any proposed claim interpretations, of the '278 patent or other asserted patents, based upon the inventor functioning as his own lexicographer. And, the Court did not find the inventor acted as his own lexicographer for any claim terms.

Neither of the parties raised any proposed claim interpretations under 35 U.S.C. §112, 6th paragraph for any term of any of the asserted patents, including the '278 patent. The Court did not find that any of the terms invoked 35 U.S.C. §112, 6th paragraph.

The Patent Owner respectfully points out "means" is not used anywhere in the claims of the '278 patent, or in the specification, or in the drawings. The original Examiner for

the '278 patent did not find that any of the terms invoked 35 U.S.C. §112, 6th paragraph. In addition, the Requester's technical expert did not assert such a construction in his Expert Reports or at trial, and Requester did not raise such a construction in its Reexamination Request. The Patent Office, in the first reexamination of the '278 patent, did not propose claim interpretations under 35 U.S.C. §112, 6th paragraph.

The Examiner now contends that "a downloading interface" should be interpreted under §112, 6th paragraph, and that the corresponding structure is described, on pages 17 and 18 of the Office Action, as follows:

> [b]ased upon a review of the original disclosure, the Examiner finds that the corresponding structure for Functional Phrase #4 is a downloading interface (Figure 10, 116), e.g. interface circuitry 132 (e.g. logic circuitry or other control circuitry along with switching components) for controlling communication with a downloading device, and either a wireless signal downloading interface (e.g. a wireless receiver 114, such as for temporary connection to the downloading device 115 via any one or more of a number of wireless technologies, such as cellular, satellite, IR, Bluetooth or WiFi technologies (Fig. 11) or a temporary wireless communication link with the downloading device provided by sharing the wireless communications device that sends position data (Fig. 12)) or a wired signal downloading interface (e.g. a connector 133a in the form of a socket to accept a memory card or other data storage medium capable of transferring data or a connector 133a for temporary connection to a mating connector 133b of the downloading device (Fig. 13) wherein the downloading device can be, e.g., a laptop computer, via RS232/429 protocol, USB, Fire Wire, TCP/IP (Internet), or any other wired

> protocol.) (See '278 at col. 24, lines 14-51.) The corresponding structure for Functional Phrase #4 is therefore such a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code, e.g. vehicle device code or codes, an instruction to select a code or codes from among those already stored, or the data or sequence to allow the controller to generate the vehicle device code or codes, for use by said multi-vehicle compatible controller ('278 at col. 24, lines 8-12; emphasis added).

The Patent Owner disagrees with the Examiner's assertion that any of the claim terms should be construed in accordance with §112, 6th paragraph for the first time now. The Patent Owner notes that there are differences between the Examiner's claim interpretations under §112, 6th paragraph, and Patent Owner's asserted interpretations consistent with the Court, but believes these differences are not likely material for purposes of this Response.

IV. Patentability of the Pending Claims

The Examiner rejected independent Claims 1 and 18 as being anticipated by or, in the alternative as being obvious over Chou et al. Independent Claim 13 was rejected over the combination of Chou et al. and Spaur et al.

FIG. 1 from Chou et al. is reproduced below for convenience.

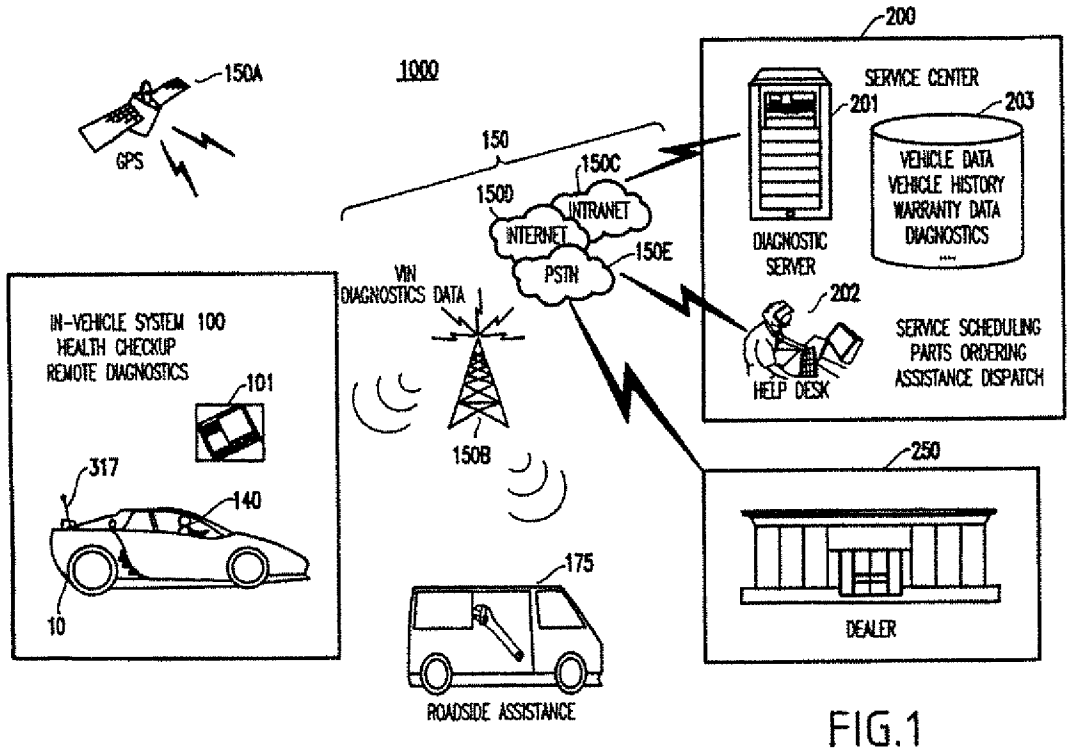


FIG.1

The Chou et al. system includes a vehicle 10 having an in-vehicle computing system 100, and a client computer device 101 to enable vehicle health checkup and remote diagnostics. A communication link 150 is for communicating vehicle information (e.g., vehicle identification number, (VIN), diagnostic data, and the like). The vehicle location is established, for example, by a device 317 (e.g., antenna or the like) for receiving positioning information. A remote service center 200 is also provided having a diagnostic server 201, a help desk 202 and a data repository 203. The help desk 202 schedules services, orders parts, and dispatches assistance through the roadside assistance unit 175.

The Patent Owner submits that Chou et al. fails to disclose the claimed vehicle tracking unit including the multi-vehicle compatible controller and the downloading interface for the reasons set forth below.

A. Chou et al. Fails to Disclose the Multi-Vehicle Compatible Controller and Downloading Interface

1. Multi-Vehicle Compatible Controller

Independent Claim 1, for example, recites a multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles.

Chou et al. provides the following description of the vehicle bus interface as is pertinent to the different device codes for different vehicles:

> [t]he vehicle bus interface 120 includes the following modules: vehicle bus adapter 120C, fault detector 120B, and diagnostic data service 120A. The fault detector 120B polls the vehicle bus 104 through the vehicle bus adapter 120C checking for fault codes reported by the vehicle ECUs 103. The vehicle bus adapter 120C translates the messages received from the vehicle bus into the language of the fault detector. It also translates messages from the fault detector into the language of the vehicle bus. The fault code specifications and protocols of the vehicle may be Original Equipment Manufacturer (OEM) and model dependent. The term "vehicle fault codes" is meant to be synonymous with the term "trouble code" or "diagnostic trouble code". A listing of such codes may be found in the publication of the Society of Automotive Engineers, "SAE On-Board

> Diagnostics for Light and Medium Duty Vehicles Standards Manual". The diagnostic data service 120A accepts request for vehicle parametric data and retrieves the data using the vehicle bus adapter. (Col. 4, lines 20-38; emphasis added).

The Examiner, on page 26, contends that "Chou either implicitly discloses or obviously suggests a 'multi-vehicle compatible controller' and such controller is coupled to a vehicle data bus, e.g. 335, 104, for communication thereover, e.g. via 330, 120, with at least one vehicle device, e.g. 103, using at least one corresponding vehicle device code, i.e. (DTC), vehicle fault codes/protocols, which is vehicle model dependent, i.e. from among a plurality thereof for 'different vehicles'".

The cited SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual, i.e. the SAE HS-3000, provides that: "[c]urrently there is no uniformity in these numeric Diagnostic Trouble Codes (DTC) between manufacturers, and in some cases, even within the same manufacturer across different product lines." (SAE HS-3000, 1997, page 39).

Indeed, the lack of vehicle code compatibility among different vehicles for vehicle tracking units is the problem addressed by the claimed invention of the '278 patent. The inventor, Mr. Flick, recognized that having many different model vehicle tracking units for many different vehicles presented significant inventory control and product development challenges, particularly in the aftermarket vehicle tracking unit area.

2. Downloading Interface

Independent Claim 1, for example, further recites that the vehicle tracking unit comprises "a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller". Accordingly, the combination of the multi-vehicle controller and downloading interface reduces the need for expansive inventory and simplifies supplying vehicle tracking units for new vehicles.

As noted above, the Examiner has interpreted the downloading interface of the claimed vehicle tracking unit as structure "for permitting downloading of enabling data related to the at least one corresponding vehicle device code, e.g. vehicle device code or codes, an instruction to select a code or codes from among those already stored, or the data or sequence to allow the controller to generate the vehicle device code or codes, for use by said multi-vehicle compatible controller." (Office Action, page 18).

The Examiner, on page 27, contended that Chou et al. discloses the claimed downloading interface as follows:

> interface circuitry, e.g. NETWORK INTERFACE, 320, 107, docking facility, and a temporary wireless communication link, e.g. arrow 7, 14, arrow 3, 9, with the downloading device, i.e. TCP/IP(an internet/the Internet), 201, provided by sharing the wireless communications device, e.g. 102, that sends position data, see, e.g. col. 7, lines 32-40, (see also discussion of claims 2-5) and such structure permits downloading of enabling data, e.g. instruction to gather data, vehicle parameter update/change, related to the at least one corresponding vehicle device code for use by

said multi-vehicle compatible controller, e.g. steps 2-6 in Figure 5.

FIG. 5, which illustrates a health checkup event operation flow, is reproduced below for convenience.

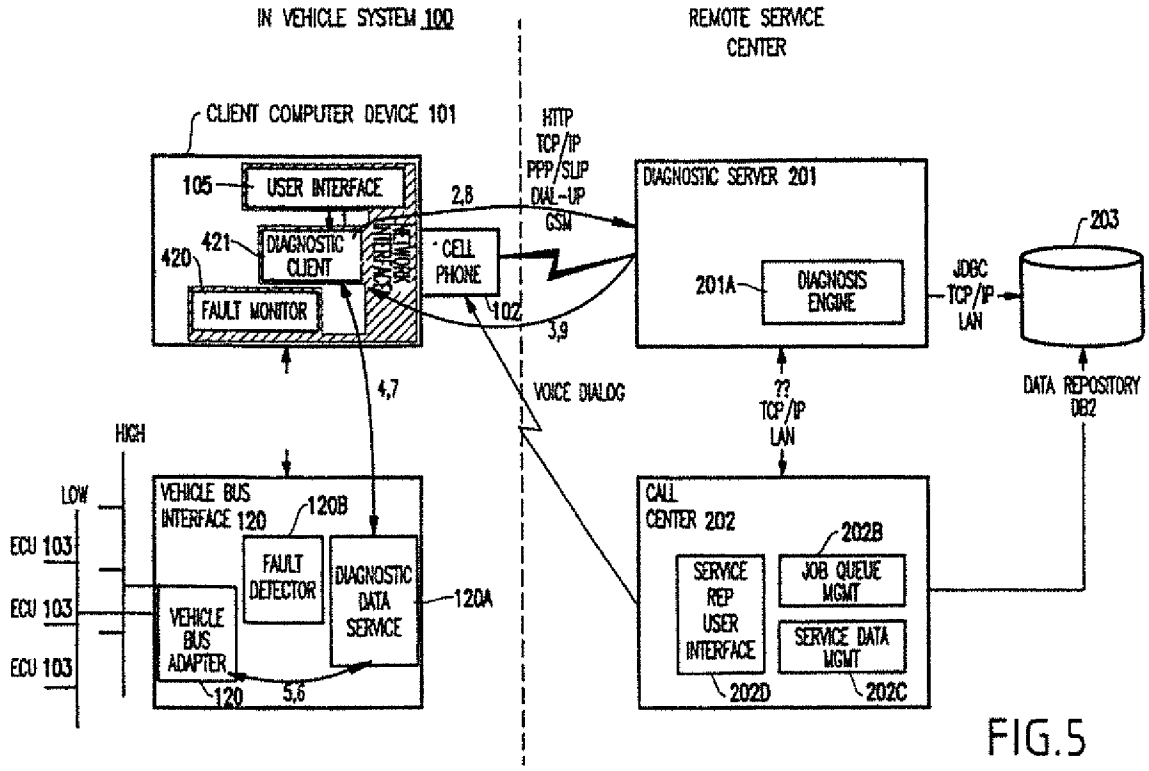


FIG.5

Based upon FIG. 5 and these cited portions of Chou et al., the Examiner contended that: "[t]hus '499 discloses or obviously suggests 'a downloading interface' and such permits downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller." (Page 27).

The Patent Owner respectfully submits that Chou et al. fails to disclose or obviously suggest the claimed multi-vehicle

compatible controller and downloading interface in the vehicle tracking unit. Instead, data from the ECUs on the vehicle bus is merely passed from the in-vehicle system to the remote service center of Chou et al. And, in the reverse direction, data is passed to the in-vehicle system in Chou et al. There is no discussion in Chou et al. of downloading enabling data related to at least device code for use by the multi-vehicle controller in the vehicle.

B. Chou et al. Teaches Away from the Claimed Invention

The Patent Owner contends that the teachings of Chou et al. include that the in-vehicle computer system (the left hand side of FIG. 5) simply interfaces to the various specific ECUs on the bus. Further, Chou et al. teaches that the diagnostic server of the remote service center (on the right hand side of FIG. 5) provides the ability to read data from the data bus or write data to the data bus, even though different manufacturers and different models use different codes for their ECUs. In other words, Chou et al. teaches away from the claimed vehicle tracking unit including the multi-vehicle controller and downloading interface.

For example, Chou et al. provides that:

> [t]he remote service center 200 of FIG. 3 comprises a diagnostic server 201 that has access to data related to the vehicle such as as-built, history, diagnostics, warranty, service information and failure mode data. The diagnosis server 201 is linked to the data repository 203 via a TCP/IP link, LAN, or the like. (Col. 5, lines 34-39; emphasis added).

And Chou et al. also provides:

> [w]ithin the diagnostic server 201 at the service center 200 is a diagnosis engine 201A. The main function of the diagnosis engine 201A is to provide a health checkup or a diagnosis using the data obtained from the vehicle, the vehicle's past history, and the diagnostics information about the particular model of the vehicle. (Col. 5, line 53-58; emphasis added).

In operation, "[t]he diagnosis engine 201A first determines if a fault or a potential of a fault is present by checking if any trouble code is reported by the client, and checking a predetermined list of vehicle attribute values against their normal operating characteristics." (Col. 5, lines 61-64).

During diagnosis session "the diagnostic client 421 passes the fault codes, vehicle identification and other relevant information to the [diagnostic] server 201". (Col. 8, lines 19-21). The fault detector and diagnostic client are both at the vehicle, and, the diagnostic server is at the remote service center. The diagnostic server can also request data from the diagnostic client at the vehicle.

The vehicle driver may also initiate a vehicle health checkup. Chou et al. further describes this health checkup as follows:

> [t]hen, vehicle information, estimated to be on the order of 1 kilobyte in size, including, for example, vehicle identification number (VIN), any trouble codes, and/or a snapshot of the vehicle data, are retrieved by the vehicle client 101 through the vehicle bus interface 120. The vehicle client 101 combines vehicle ID information with the information from the vehicle bus interface 120 and sends the data to the Diagnostic Server 201 over a data link. The data link is kept open. The diagnostics server 201

> retrieves vehicle information from the data repository 203 and compares the data from the vehicle with the repository data. Then, the diagnostic server 201 prepares a report listing any out-of-range parameters and actions required (e.g., "coolant level is low"). (Col. 9, lines 3-16; emphasis added).

The Patent Owner submits that Chou et al. teaches that the ability to work with different vehicles, having different vehicle device codes, is provided at the remote service center using the diagnostic server 201 in combination with the data repository 203 (FIG. 1) also at the remote service center - and not at the vehicle. Chou et al. provides no disclosure, and no reason, for this capability to be provided at the in-vehicle system.

Thus Chou et al. teaches away from the vehicle tracking unit of the claimed invention that includes: the multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles, and the downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

Accordingly, the Patent Owner submits that independent Claims 1 and 13 are patentable over Chou et al. Spaur et al. is cited for the teaching of a wired connection in the rejection of independent Claim 13, and, the Patent Owner submits that Spaur et al. adds nothing to the deficiencies of Chou et al. Accordingly, independent Claim 13 is also patentable. In view of the patentability of the independent Claims 1, 13 and 18, it

is submitted that their dependent claims are also patentable, and require no further discussion herein.

C. Secondary Considerations of Non-Obviousness

To the extent that the Examiner is relying on an obviousness argument based upon the Chou et al. patent, the Patent Owner can offer the following secondary considerations supporting non-obviousness. As noted by the Federal Circuit in *Mintz v. Dietz*, 679 F.3d 1372 (Fed. Cir. 2012), the following helpful guidance is provided with respect to the objective criteria of secondary considerations:

> [t]hese objective criteria thus help turn back the clock and place the claims in the context that led to their invention. Technical advance, like much of human endeavor, often occurs through incremental steps toward greater goals. These marginal advances in retrospect may seem deceptively simple, particularly when retracing the path already blazed by the inventor. For these reasons, this court requires consideration of these objective indicia because they "provide objective evidence of how the patented device is viewed in the marketplace, by those directly interested in the product." (*Id.* at 1378; emphasis added).

Mintz further provides:

> [i]ndeed, where the invention is less technologically complex, the need for Graham findings can be important to ward against falling into the forbidden use of hindsight. Simply because the technology can be easily understood does not mean that it will satisfy the legal standard of obviousness. In fact, objective consideration of simple technology is often the most difficult because, once the

> problem and solution appear together in the patent disclosure, the advance seems self-evident. Instead, the proper analysis requires a form of amnesia that "forgets" the invention and analyzes the prior art and understanding of the problem at the date of invention.
> (*Id.* at 1379; emphasis added).

The Patent Owner sets forth below evidence of licensing, commercial success, copying by others, customer need, and limited value of products without the claimed invention.

1. Licensing

The '278 patent in Claim 1, for example, is directed to a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle. The multi-vehicle compatible tracking unit comprises a vehicle position determining device, a wireless communications device, and a multi-vehicle compatible controller for cooperating with the vehicle position determining device and the wireless communications device to send vehicle position information. The multi-vehicle compatible controller is to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. The multi-vehicle compatible tracking unit comprises a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller.

The Patent Owner points to the following excerpt from the Jury Verdict form (Exhibit 1) from the related litigation

establishing the merits of the claimed invention and the licenses:

5. **Which of the following factors that tend to indicate nonobviousness, if any, has been established by the evidence with respect to the claimed invention (write the word "yes" in the blank below to any question that you answer "yes" to):**

YES **Did others accept licenses under patents because of the merits of the claimed invention?**

In other words, after observing all of the testimony of the witnesses, reviewing the exhibits presented during trial, and applying the Court's Jury Instructions, the Jury determined that the licenses were based on the merits of the claimed invention, including the '278 patent.

As noted in Mr. McAlexander's Declaration, the Patent Owner has received in excess of $50 million in licensing revenue, from the '278 patent and the other asserted patents in the related litigation.

Mr. McAlexander also notes that the '278 patent is one of three patents asserted in the related litigation providing features for multi-vehicle compatibility; and, multi-vehicle compatibility is important for the overall licensing program of the Patent Owner.

Mr. McAlexander cites to Requester's own employees' trial testimony for the propositions that the multi-vehicle compatibility provides for simplified installation and avoids the need to have multiple SKUs (stock keeping units). Further

details regarding the "customer need" and "limited value" without the multi-vehicle compatibility are provided below.

2. Commercial Success

The Patent Owner respectfully points to the following excerpt from the Jury Verdict form from the related litigation that provides evidence of commercial success due to the merits of the claimed invention:

5. **Which of the following factors that tend to indicate nonobviousness, if any, has been established by the evidence with respect to the claimed invention (write the word "yes" in the blank below to any question that you answer "yes" to):**

yes **Were accused products covered by the claim commercially successful due to the merits of the claimed invention rather than due to advertising, promotion, salesmanship, or features of the product other than those found in the claim?**

Furthermore, the Jury also determined that the features of the '278 patent were included in the infringing CalAmp devices. The Jury determined that asserted claims of the '278 patent were infringed, and the Court determined the infringement was willful. The Jury Verdict evidences that products sold by CalAmp correspond to the claimed invention.

This is the pertinent portion of the Jury Verdict form:

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 1	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 2	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 3	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 4	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 5	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 6	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 8	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 11	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 12	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No		
Claim 13	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 14	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 16	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 18	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 19	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 21	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No

As noted in Mr. McAlexander's Declaration, CalAmp has sold over 466,000 units of the accused products, earning over $4.1 million in gross profits (citing to the Tregillis financial expert report).

Mr. McAlexander also notes that the '278 patent is one of three patents asserted in the related litigation providing features for multi-vehicle compatibility; and, multi-vehicle compatibility is important for the overall licensing program of the Patent Owner. Mr. McAlexander cites to Requester's own employees' trial testimony for the propositions that the multi-vehicle compatibility provides for simplified installation and avoids the need to have multiple SKUs (stock keeping units).

3. Copying by Others

Once again, the Patent Owner points to the following excerpt from the Jury Verdict form from the related litigation that establishes copying:

5. **Which of the following factors that tend to indicate nonobviousness, if any, has been established by the evidence with respect to the claimed invention (write the word "yes" in the blank below to any question that you answer "yes" to):**

YES **Did others copy the claimed invention?**

The Jury's finding of infringement of all of the asserted claims of the '278 patent (provided above) establishes that CalAmp's products correspond to the claimed invention. The Court's Final Order and Final Judgment confirm the Jury's Verdict.

4. Customer Need

The Patent Owner draws the Examiner's attention first to the Court's determination in the related litigation. In its Final Order, the Court provides:

> Rather than take a license, and choosing not to design around Omega's patents, CalaAmp elected to sell infringing products and continues to do so to this day. CalaAmp's motivation to engage in this behavior is obvious: their customers wanted this technology and CalAmp wanted to provide it. (Final Order, page 19; Emphasis added.)

The McAlexander Declaration provides that the multi-vehicle accused products in the CalAmp litigation were developed because of "customer need" for a simple installation that did not require splicing of wires. Mr. McAlexander's position is supported by the following testimony of Mr. Stephen Hall and Mr. Peter Hergesheimer, both CalAmp employees, as follows:

Testimony of Stephen Hall

Q. Can you introduce yourself for the record

A. Yes. My name is Stephen Hall. The correct spelling is S-t-e-p-h-e-n.

Q. All right, sir. And by whom are you employed?

A. I'm an employee of CalAmp Corporation.

Q. Do you have a title at CalAmp?

A. My official title is director of system engineering and technology.

Q. What does it mean to be the director of system engineering and technology at CalAmp?

A. My role is to look at the needs of our customer and market and to match them up with various technologies that are going on in the industry component level and otherwise to make sure that we have an appropriate solution. (Stephen Hall deposition, 6:8-22).

Q. All right, sir. I'm going to hand you what was previously marked as Exhibit 1 to the deposition of Mr. Hergesheimer. Can you tell me what Exhibit 1 is?

A. I'm looking at a CalAmp datasheet for the LMU-3000 product.

Q. And were you involved in the development of the LMU-3000?

A. I was.

Q. And what was your role in developing the LMU-3000?

A. My role on the 3000 was at the CRS level. I provided the requirements document for that. The various blocks within it were predefined by our existing partnerships, and so I didn't do a lot of component selection type of work, so it was really limited just to the CRS document.

Q. Was there a particular market need that you identified leading up to the creation of the CRS for the LMU-3000?

A. The 3000 was driven by a general market need that we heard from a number of customers. The primary interest was coming from a need for a *simple installation type of solution* and the opportunity to enhance the capability of the product that we could offer with certain data items coming off of the vehicle bus. (Stephen Hall deposition, 6:8-22; and 40:20-41:12; Emphasis added).

Testimony of Peter Hergesheimer

Q. You have been designated as a representative on whether CalAmp has willfully or deliberately infringed in this case. Beyond knowing about the devices and how they operate, do you know anything about CalAmp's assertions that its actions are not willful or deliberate?

A. I would say from my experience in the development of these devices that there's no willful infringement.

Q. And -- and what's that based on?

A. That's based on knowing where the -- the technology that we use came from and the fact that these were sales-driven requests and somebody had a problem to solve and we went about solving the problem.

Q. What do you mean sales-driven request?

A. Well, typically our -- typically we have a customer that says hey, I would like to do this particular -- have a product that has this feature and so CalAmp goes about designing that product.

Q. So the LMU3000 development was the result of - or was -- was undertaken because customers expressed a demand to CalAmp for these products?

A. I -- I believe that's the case. I can't say specifically for these, but that's in general how our product development works. (Peter Hergesheimer deposition, 40:6 - 41:3).

5. Limited Value for Products Without the Invention

The Examiner's attention is directed to the section above regarding Commercial Success. The Patent Owner asserts that the accused products as covered by the '278 patent would have "limited value" if it were not for multi-vehicle compatibility. CalAmp's own employee, Peter Hergesheimer, testified as follows:

Testimony of Peter Hergesheimer

Q. Can you state your name for the record.

A. Peter Hergesheimer.

Q. All right. Sir, and by whom are you employed?

A. CalAmp.

Q. Okay. And what's your position at CalAmp?

A. I'm the senior director of software and architecture in the MRM group. (Peter Hergesheimer deposition, 6:2-8).

Q. Do you know whether the LMU3000 would have any value if it didn't work on multiple vehicles?

A. It would have a limited value.

Q. You would need separate skus for each vehicle; right?

A. That would be one way of solving that problem.

Q. Is there any other way?

A. Different skus could be different software got loaded onto the same sku.

Q. Okay. So you can -- whether you have a different sku or not, you would need to -- if -- if the LMU3000 was vehicle specific, it would need software for each vehicle in which it was -- separate software for each vehicle in which it was designed to work?

A. Each vehicle type I would guess, yes.

Q. And that would be a more expensive exercise, I would think, from CalAmp's perspective?

A. Yes.

Q. And less desirable than the -- than the option you have now where the LMU is able to service multiple vehicles?

A. Yes, even though it is still pretty painful.

(Peter Hergesheimer deposition, 46:25 - 47:19; Emphasis added).

In view of the evidence of secondary considerations the Patent Owner submits that any obviousness type rejection of the pending claims is rebutted.

CONCLUSIONS

In view of the arguments presented above, and the evidence submitted in the attached Rule 132 Declaration, it is submitted that all of the claims are patentable. Accordingly, a Reexamination Certificate confirming all claims as patentable is respectfully requested in due course. Should any minor informalities need to be addressed, the Examiner is encouraged to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized to charge or credit any discrepancies in fee amounts to Deposit Account No. 01-0484.

Respectfully submitted,

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CERTIFICATE OF SERVICE

Certificate of Service in compliance with 37 C.F.R. §1.530(c)

Pursuant to 37 C.F.R. §§1.530(c), 1.248, I hereby certify that on June 12, 2017, a complete copy of this Amendment is being served via First Class U.S. Mail upon Third Party Requester at the correspondence address as shown in PAIR:

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM

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PATENT NO. *8032278*.

ART UNIT *3992*.

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

Karin M. Reichle

Primary Examiner

Art Unit: 3992

DETAILED ACTION

Introduction:

This Office Action addresses the *ex parte* reexamination of claims 1-22 of U.S. Patent No. 8,032,278 (hereinafter also referred to as '278) issued to Flick for which a Substantial New Question of Patentability has been deemed to exist. The status of the claims is as follows:

Claims 1-22 are rejected.

Patents, Non-Patent Literature, Other Evidence:

(1) U.S. Patent No. **5,732,074** to **Spaur et al**, published March 24, 1998, filed January 26, 1996 (hereinafter also referred to as '**074** or **Spaur**).

(2) U.S. Patent No. **6,028,537** to **Suman et al**, published February 22, 2000, filed June 3, 1997 (hereinafter also referred to as **'537** or **Suman**).

(3) U.S. Patent No. **6,330,499** to **Chou et al**, published December 11, 2001, filed July 21, 1999 (hereinafter also referred to as **'499** or **Chou**).

Response to Arguments and Declarations

Declaration under 37 CFR 1.132

The declaration under 37 CFR 1.132 filed June 12, 2017, and accompanying exhibits, hereinafter referred to as the declaration, have been received. Such declaration under 37 CFR 1.132 has been considered but is ineffective to overcome the rejection of claims, see Response to Arguments section *infra*.

Response to Arguments

The Remarks filed June 12, 2017, hereinafter referred to as the Remarks or the Response, have been received. Such remarks, and accompanying exhibits, have also been considered in their entirety but are not persuasive for the reasons discussed below.

Related Litigation:

Patent Owner's (hereinafter also referred to as PO) discussion of the related litigation, pages 8-10, including Exhibits 1-3, has been noted and considered. See MPEP 2259 and thereby 2242, III and 2286. See also Secondary Considerations of Non-Obviousness section and Claim Construction section *infra*. See also 3/29/2017 Search Notes.

The First Reexamination

PO's discussion of the first reexam '587, pages 10-11, has been noted and considered. With regard to the last two paragraphs thereof see MPEP 2242, II, 2258.01, the December 15, 2016 Order, pages 42-46 and pages 5-23 as well as the cited page 41 and the March 29, 2017 Office Action.

Other Related Reexaminations

PO's discussion of the related reexaminations, pages 11-12, has been noted and considered. See 3/29/2017 Search Notes as well as the Search Notes accompanying this Office Action. It is noted that the Chou '499 reference is not of record in any of the related copending reexaminations.

Pending Claim

PO's presentation of the pending claims 1, 13 and 18, pages 12-13, has been noted and considered.

Claim Construction

PO's discussion of the construction of the claims, pages 13-16, has been noted and considered.

First, see MPEP 2258, 1, G, and MPEP 2181, I, third paragraph and 2181, I, C, fourth paragraph (i.e. the lack of the explicit use of the terminology "means" creates a rebuttable presumption that 112, sixth paragraph, does not apply) and pages 2-20 of the 3/29/2017 Office Action (rebuttal of the presumption), especially the paragraph bridging pages 2-3, and the discussions of "*3-Prong Analysis Prong (A)*" of the various specific phrases, and pages 15-20

with regard to the phrase "a downloading interface….controller". Attention is also invited to the prosecution history of copending reexaminations 90/013659 and 90/013832 with regard to claim language interpretation.

Second, it is further noted that the agreed construction of the claim term "Multi-vehicle compatible controller" during the related litigation was "[e]lectronic circuitry that performs one or more control function, and can operate with more than one vehicle". In other words electronic circuitry that has the capability to operate with at least two vehicles but those vehicles do not have to be of different models and/or from different manufacturers, i.e. could be of the same make and model from the same manufacturer. See again the paragraph bridging pages 2-3 of the 3/29/2017 Office Action. Note also the discussion of the patentability of the pending claims *infra*.

Finally, PO merely concludes with:

> The Patent Owner disagrees with the Examiner's assertion that any of the claim terms should be construed in accordance with §112, 6th paragraph for the first time now. The Patent Owner notes that there are differences between the Examiner's claim interpretations under §112, 6th paragraph, and Patent Owner's asserted interpretations consistent with the Court, but believes these differences are not likely material for purposes of this Response.

However PO does not set forth any specifics as to why the claim terms should not be construed in accordance with 112, 6th paragraph nor what the asserted differences are regardless of whether such are "material for the purposes of this Response".

Note also the discussion with regard to the declaration *infra*.

Claim Patentability-Multi-Vehicle Compatible Controller

PO's discussion of the recitation "a multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles", pages 16-19, has been noted and considered.

Examiner respectfully disagrees with PO. As best understood, PO asserts/concludes (following a quotation of a portion of Chou (col. 4, lines 20-38 were reproduced) and an excerpt of part of page 26 of the 3/29/2017 Office Action) that Chou fails to disclose the recited controller because there is a lack of vehicle code compatibility among vehicles of different manufacturers and in some cases, even between different "products" of the same manufacturer which lack was discussed by SAE 3000 and the problem addressed by the '278 patent. However such assertions/conclusions are not commensurate with the terms of the claim/recited feature itself and/or such terms given the broadest reasonable interpretation consistent with the specification but not reading limitations in the specification into the claims, the teachings of Chou and/or the 3/29/2017 Office Action.

First, the language of the phrase does not require compatibility among vehicles of different manufacturers and/or different "product" lines of the same manufacturer. See the 3/29/2017 Office action at the paragraph bridging pages 2-3, i.e. "different vehicles" can be, e.g., same make and model with different trims (not different electronics). Note also pages 10-15 and 24-26, in their entirety, of the 3/29/2017 Office Action as well as the discussion in Claim Interpretation section *supra* (note even the Markman Order shows "multi-vehicle compatible

controller" was construed as electronic circuitry that "can operate with more than one vehicle", not vehicles of different manufacturers and/or different "product" lines of the same manufacturer). Continuing, the phrase, see again the 3/29/2017 Office Action at page 13, as construed does not require the corresponding structure (e.g. circuitry, memory, CPU) simultaneously store codes of vehicles of different manufacturers and/or different "product" lines of the same manufacturer and/or be capable of using any of such stored codes from vehicles of different manufacturers and/or different "product" lines of the same manufacturer. The phrase requires of corresponding structure merely the capability of using at least one code from among a plurality thereof for "different vehicles", see again the 3/29/2017 Office action bridging pages 2-3 and 24-26, i.e. teaching of such a capability by '499, i.e. capable of using a code from among a plurality thereof, i.e. model dependent.

Note also the discussion with regard to the declaration *infra*.

Claim Patentability-Downloading Interface

PO's discussion of the recitation "a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller", pages 20-22, has been noted and considered.

Examiner respectfully disagrees with PO. As best understood, PO asserts/concludes, (after quotations of the pertinent claim language and portions of pages 18 and 27 of the 3/39/2019 Office Action and a reproduction of Figure 5 of '499) that Chou does not discuss the

recited feature but instead merely discloses passing data between the in-vehicle system and the remote service center. However such assertions/conclusions are not commensurate with the terms of the claim itself and/or such terms given the broadest reasonable interpretation consistent with the specification but not reading limitations in the specification into the claims, the teachings of Chou and/or the 3/29/2017 Office Action.

First see pages 15-17 as well as the cited page 18 of the 3/29/2017 Office Action with regard to the interpretation of the claim phrase. It is again noted such phrase recites the function or capability of the corresponding structure as "permitting downloading of enabling data **related to** the at least one corresponding vehicle device **code** for use by *said multi-vehicle compatible controller*". Attention is again invited to the discussion in the Claim Patentability-Multi-Vehicle Compatible Controller section *supra*. Second, see again pages 26, 28 and 38-40 of the 3/29/2017 Office action as well as the cited page 27. PO's conclusions do not discuss the entirety of the rejection, i.e. all the cited portions of Chou, e.g. col. 9, lines 35-45, col. 4, lines 15-38, col. 10, lines 1-11, with regard to the corresponding structure and function/capability of the functional phrase.

Note also the discussion with regard to the declaration *infra*.

Claim Patentability-Teachings of Chou

PO's discussion of Chou teaching away from the invention, pages 22-25, which relies on the same portions of '278 cited in paragraph 17 of the declaration, has been noted and considered but are not persuasive.

Again PO's assertions/conclusions are not commensurate with the terms of the claim itself and/or such terms given the broadest reasonable interpretation consistent with the specification but not reading limitations in the specification into the claims. See again the prior discussion of the multi-vehicle compatible controller and downloading interface, i.e. the claim language does not require specifics (e.g. on-board structure with the ability to work with different vehicles having different codes, i.e. simultaneous storage data/codes of vehicles from different manufacturers and/or different models and use of such codes) as asserted, as best understood.

Note also the discussion with regard to the declaration *infra*.

Secondary Considerations

PO's discussion of secondary considerations, pages 22-25, which relies on the declaration, paragraph 19 and Exhibit 1 (Jury Verdict Form) and Exhibit 2 (The Final Order) and Exhibit 3 (The Final Judgement) and excerpts of testimony (Stephen Hall and Peter Hergesheimer), has been noted and considered but are not persuasive.

First, to be of probative value, evidence of secondary considerations must be related to the claimed invention, i.e. a nexus between the invention as claimed and evidence of the

secondary consideration. As discussed *supra*, the claimed invention as discussed by PO is not commensurate with the invention as claimed. Second, with regard to the litigation evidence relied upon, see again MPEP 2259. See also discussion of the declaration *infra*. Third, PO asserts litigation evidence (testimony/trial transcript, exhibits, instructions, see, e.g., page 26, first full paragraph, page 26, second to last line-page 27, line 12, page 28, line 4-page 30, last line, section 3 on page 31 and the testimony excerpts bridging pages 32-37) for the conclusions regarding the secondary considerations. However such referenced testimony/trial transcript, exhibits, instructions are not of record, e.g. jury instructions, or only partially of record, e.g. excerpts of testimony of trial transcript, as best understood. Finally PO asserts the declaration for the conclusions regarding the secondary considerations. However see the discussion of the declaration *infra*. Note also the evidence of record is silent with regard to the Chou '499 reference.

Declaratory Evidence

Section I, paragraphs 1-6, with regard to Background have been noted.

Section II, The '278 Patent and Current Office Action, paragraphs 7-9, with regard to evidence reviewed (e.g. "the related litigation trial transcript and exhibits", the statements of the statutory grounds of the pending rejections and the declarant's presentation of "representative" claims 1, 13 and 18 recitations) have been noted. As best understood from the identification of "the related litigation trial transcript and exhibits", such are not of record or only partly of record. See again the Secondary Considerations section *supra*.

Section III, The Prior Art Analysis, paragraphs 10-17, (declarant's understanding of what Chou and SAE HS-3000 disclose, declarant's understanding of Examiner's interpretation and prior art position with regard to "down loading interface", declarant's "opinion" that Chou "fails to disclose the multi-vehicle compatible controller and downloading interface of the claimed vehicle tracking unit, as these claim recitations are interpreted by the Examiner" and declarant's "opinion" that "Chou teaches away from the claimed invention" including citations to columns and lines of '278) have been noted. However, declarant's understanding of the Examiner's interpretation/positions, as best understood (merely portions thereof reproduced without reference to, i.e. page, line nos/the pertinent portions of the 3/29/2017 Office action) and/or declarant's "opinion" with regard to Chou's disclosure as to "claim recitations as interpreted by the Examiner" are merely conclusory. Declarant's "opinion" as to Chou teaching away is likewise conclusory (the cited portions as best understood are those of '499). See also the discussion supra of the multi-vehicle compatible controller and downloading interface of the claimed vehicle tracking unit.

Section IV, Evidence of Secondary Considerations, paragraphs 18-19 (including reliance on litigation evidence, i.e. Jury Verdict, The Final Judgement, portions of depositions, financial expert Reports), have been noted. Declarant's submissions regarding non-obviousness are merely conclusory. See the discussion in Secondary Considerations section *supra.* Again the evidence of non-obviousness (i.e. testimony/trial transcript, exhibits, instructions) are not of record, e.g. jury instructions, financial expert Reports, or only partially of record, e.g. excerpts of testimony of trial transcript, as best understood.

In conclusion neither the PO' remarks and/or the declaration are not effective to overcome the rejection of the claims as set forth in the 3/29/2017 Office Action.

Claim Interpretation/Analysis:

Lexicographic Definitions

See MPEP § 2111.01, IV and 2163.07(a). The original specification (col. 22, first full paragraph) incorporates by reference U.S. 6,011,460 with regard to the tracking device communicating with one or more other vehicle devices via a vehicle data communication bus which '460 at col. 6, lines 14-18 sets forth "As would be readily understood by those skilled in the art, the term different vehicles [sic] may include vehicles from different manufacturers, different models, or even different trim levels of the same make and model."

35 U.S.C. §112 Sixth Paragraph

"Means-plus function" language of a claim if meeting the 3-prong analysis set forth in MPEP 2181, I, "shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof", see MPEP 2181, II. As also set forth in 2181, II, "If one employs means plus function language in a claim, one must set forth in the specification an adequate disclosure showing what is meant by that language", i.e. sets forth the structure, materials, or acts corresponding to a means- (or step-) plus-function.

Specifically:

> …examiners will apply 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph to a claim limitation if it meets the following 3-prong analysis:

(A) the claim limitation uses the term "means" or "step" or a term used as a substitute for "means" that is a generic placeholder (also called a nonce term or a non-structural term having no specific structural meaning) for performing the claimed function;

(B) the term "means" or "step" or the generic placeholder is modified by functional language, typically, but not always linked by the transition word "for" (e.g., "means for") or another linking word or phrase, such as "configured to" or "so that"; and

(C) the term "means" or "step" or the generic placeholder is not modified by sufficient structure, material, or acts for performing the claimed function.

The Examiner concludes that claims 1-22 include a phrase or phrases that invokes/invoke 35 U.S.C. §112, 6th paragraph. For support of the Examiners conclusion the Examiner notes the following 3-prong analyses.

"a vehicle position determining device"

Analysis of Independent Claims 1, 13 and 18

The Examiner concludes the phrase "*a vehicle position determining device*," as recited in claims 1, 13 and 18, line 5, (Functional Phrase #1) invokes 35 U.S.C § 112, 6th paragraph. To support the Examiner's conclusion, the Examiner notes the following 3-Prong analysis:

a) 3-Prong Analysis Prong (A):

As an initial matter, the Examiner finds that Functional Phrase #1 does not use the term "means." The issue arising under Prong (A) then becomes whether or not the claimed phrase "device" is a generic placeholder for 'means'. *See MPEP 2181 I ¶3 and MPEP 2181 I (C) ¶4.*

The Examiner has reviewed the specification of '278 and finds: (1) insufficient evidence that '278 Patent lexicographically defines the phrase "device" as a particular structure for performing the entire claimed function; (2) insufficient evidence that '278 indicates that the phrase "device" refers to a particular structure in the art, that a person having ordinary skill in the art (PHOSITA) would recognize as a structure known to perform the entire claimed function. *See Williamson v. Citrix Online, L.L.C.,* 115 USPQ2d 1105, 1112 (Fed. Cir. 2015).

In addition the Examiner has reviewed the prior art and finds that while the phrase "device" can be a particular structure in the art, the Examiner finds insufficient evidence that the phrase "device" infers or requires any particular structure as related to the function of Functional Phrase #1.

Accordingly based upon a review of '278 itself and the prior art, the Examiner concludes that the phrase "device" as set forth in Functional Phrase #1 is being applied as a generic term/placeholder having no particular structure associated therewith as related to the entire claimed function. Because "device" is merely a generic placeholder having no specific structure associated therewith, the Examiner concludes that Functional Phrase #1 meets invocation Prong (A).

b) 3-Prong Analysis Prong (B):

Based upon a review of claims 1, 13 and 18 in '278, the Examiner finds that the function associated with Functional Phrase #1 is: "*vehicle position determining*" ('278 Patent, Claims 1, 13 and 18, line 5). *See MPEP 2181 I (B) ¶2.*

Because Functional Phrase #1 includes the function expressly noted above, the Examiner concludes that Functional Phrase #1 meets invocation Prong (B). Additionally, the Examiner notes that because nothing in the written description contradicts the plain language describing this function, the function within Functional Phrase #1 will have its ordinary and accustomed meaning.

c) 3-Prong Analysis: Prong (C)

Based upon a review of the entire Functional Phrase #1, the Examiner finds that Functional Phrase #1 does not contain sufficient structure for performing the entire claimed function that is set forth within Functional Phrase #1. In fact, the Examiner finds that Functional Phrase #1 recites very little structure (if any) for performing the claimed function.

Because Functional Phrase #1 does not contain sufficient structure for performing the entire claimed function, the Examiner concludes that Functional Phrase #1 meets invocation Prong (C).

d) Corresponding Structure

Based upon a review of the original disclosure, the Examiner finds that the corresponding structure for Functional Phrase #1 includes a device (42 in Figure 1, 112 in Figure 10) receiving multiple signals from spaced apart satellites (38 in Figure 1), e.g. a GPS receiver, or communications with the cellular telephone network, e.g. time of arrival techniques available based upon multiple reception paths to determine position via the cellular telephone network, or other satellite transmissions ('278 at col. 5, lines 15-26 and col. 23, lines 46-47 and 51-54) . Therefore the corresponding structure for Functional Phrase #1 is a receiver of communications/transmissions from satellites or cellular telephone networks for achieving the function.

Analysis of Dependent Claim 11

The Examiner concludes that dependent claim 11 modifies and/or adds to the structure of Functional Phrase #1 forming modified Functional Phrase #1. Accordingly the Examiner finds that the corresponding structure for modified Functional Phrase #1 is a GPS receiver of communications/transmissions with satellites for determining vehicle position.

Analysis of Other Dependent Claims

The Examiner finds that the dependent claims other than claim 11 do not modify the function of nor the corresponding structure for Functional Phrase #1.

"a wireless communications device"

Analysis of Independent Claims 1, 13 and 18

The Examiner concludes the phrase "*wireless communications device*" as recited in claims 1, 13 and 18, line 6, (Functional Phrase #2) invokes 35 U.S.C § 112, 6th paragraph. To support the Examiner's conclusion, the Examiner notes the following 3-Prong analysis:

a) 3-Prong Analysis Prong (A):

As an initial matter, the Examiner finds that Functional Phrase #2 does not use the term "means." The issue arising under Prong (A) then becomes whether or not the claimed phrase "device" is a generic placeholder for 'means'. *See MPEP 2181 I ¶3 and MPEP 2181 I (C) ¶4.*

The Examiner has reviewed the specification of '278 and finds: (1) insufficient evidence that '278 lexicographically defines the phrase "device" as a particular structure for performing the entire claimed function; (2) insufficient evidence that '278 indicates that the phrase "device" refers to a particular structure in the art, that a person having ordinary skill in the art (PHOSITA) would recognize as a structure known to perform the entire claimed function. *See Williamson v. Citrix Online, L.L.C.,* 115 USPQ2d 1105, 1112 (Fed. Cir. 2015).

In addition the Examiner has reviewed the prior art and finds that while the phrase "device" can be a particular structure in the art, the Examiner finds insufficient evidence that the phrase "device" infers or requires any particular structure as related to the function of Functional Phrase #2.

Accordingly based upon a review of '278 itself and the prior art, the Examiner concludes that the phrase "device" as set forth in Functional Phrase #2 is being applied as a generic term/placeholder having no particular structure associated therewith as related to the entire claimed function. Because "device" is merely a generic placeholder having no specific structure associated therewith, the Examiner concludes that Functional Phrase #2 meets invocation Prong (A).

b) 3-Prong Analysis Prong (B):

Based upon a review of claims 1, 13 and 18 in '278, the Examiner finds that the function associated with Functional Phrase #2 is: "*wireless communications*" ('278 Patent, Claims 1, 13 and 18, line 6.) *See MPEP 2181 I (B) ¶2.*

Because Functional Phrase #2 includes the function expressly noted above, the Examiner concludes that Functional Phrase #2 meets invocation Prong (B). Additionally, the Examiner notes that because nothing in the written description contradicts the plain language describing this function, the function within Functional Phrase #2 will have its ordinary and accustomed meaning.

c) 3-Prong Analysis: Prong (C)

Based upon a review of the entire Functional Phrase #2, the Examiner finds that Functional Phrase #1 does not contain sufficient structure for performing the entire claimed function that is set forth within Functional Phrase #2. In fact, the Examiner finds that Functional Phrase #2 recites very little structure (if any) for performing the claimed function.

Because Functional Phrase #2 does not contain sufficient structure for performing the entire claimed function, the Examiner concludes that Functional Phrase #2 meets invocation Prong (C).

d) Corresponding Structure

Based upon a review of the original disclosure, the Examiner finds that the corresponding structure for Functional Phrase #2 is a device (44 in Figure 1, 113 in Figures 10 and 12) configured to wirelessly transmit/communicate in a voice band or on a control channel, e.g. cellular phone transceiver, of a cellular network, over other networks, e.g. over satellite, or via wireless internet services ('278 at col. 5, lines 31-49 and col. 23, lines 47-48 and 55-58). Therefore the corresponding structure for Functional Phrase #2 is a transceiver for wirelessly communicating/transmitting in a voice band or on a control channel of a cellular network or over other networks, e.g. over satellite, or via wireless internet services.

Analysis of Dependent Claims

The Examiner finds that the dependent claims do not modify the function of nor the corresponding structure for Functional Phrase #2.

"a multi-vehicle compatible controller…"

Analysis of Independent Claims 1, 13 and 18

The Examiner concludes "*a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information; said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles*"[1] as recited in claims 1, 13 and 18, lines 7-15, (Functional Phrase #3) invokes 35 U.S.C § 112, 6th paragraph. To support the Examiner's conclusion, the Examiner notes the following 3-Prong analysis:

a) 3-Prong Analysis Prong (A):

As an initial matter, the Examiner finds that Functional Phrase #3 does not use the term "means." The issue arising under Prong (A) then becomes whether or not the claimed phrase "device" is a generic placeholder for 'means'. *See MPEP 2181 I ¶3 and MPEP 2181 I (C) ¶4.*

The Examiner has reviewed the specification of '278 and finds: (1) insufficient evidence that '278 lexicographically defines the phrase "multi-vehicle compatible controller" as a particular structure for performing the entire claimed function; (2) insufficient evidence that '278 indicates that the phrase "multi-vehicle compatible controller" refers to a particular structure in the art, that a person having ordinary skill in the art (PHOSITA) would recognize as a structure known to perform the entire claimed function. *See Williamson v. Citrix Online, L.L.C.,* 115 USPQ2d 1105, 1112 (Fed. Cir. 2015).

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[1] Again the original specification (col. 22, first full paragraph) incorporates by reference U.S. 6,011,460 with regard to the tracking device communicating with one or more other vehicle devices via a vehicle data communication bus which at col. 6, lines 14-18 sets forth "As would be readily understood by those skilled in the art, the term different vehicles [sic] may include vehicles from different manufacturers, different models, or even different trim levels of the same make and model."

In addition the Examiner has reviewed the prior art and finds that while the phrase "multi-vehicle compatible controller" can be a particular structure in the art, the Examiner finds insufficient evidence that the phrase "device" infers or requires any particular structure as related to the function of Functional Phrase #3.

Accordingly based upon a review of '278 itself and the prior art, the Examiner concludes that the phrase "multi-vehicle compatible controller" as set forth in Functional Phrase #3 is being applied as a generic term/placeholder having no particular structure associated therewith as related to the entire claimed function. Because "multi-vehicle compatible controller" is merely a generic placeholder having no specific structure associated therewith, the Examiner concludes that Functional Phrase #3 meets invocation Prong (A).

b) 3-Prong Analysis Prong (B):

Based upon a review of claims 1, 13 and 18 in '278, the Examiner finds that the function associated with Functional Phrase #3 is: "*for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information"* and "*to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles"* ('278 Patent, Claims 1, 13 and 18, lines 7-15).

Because Functional Phrase #3 includes the function expressly noted above, the Examiner concludes that Functional Phrase #3 meets invocation Prong (B). Additionally, the Examiner notes that because nothing in the written description contradicts the plain language describing

this function, the function within Functional Phrase #3 will have its ordinary and accustomed meaning.

c) 3-Prong Analysis: Prong (C)

Based upon a review of the entire Functional Phrase #3, the Examiner finds that Functional Phrase #3 does not contain sufficient structure for performing the entire claimed function that is set forth within Functional Phrase #3. In fact, the Examiner finds that Functional Phrase #3 recites very little structure (if any) for performing the claimed function.

Because Functional Phrase #3 does not contain sufficient structure for performing the entire claimed function, the Examiner concludes that Functional Phrase #3 meets invocation Prong (C).

d) Corresponding Structure

Based upon a review of the original disclosure, the Examiner finds that the corresponding structure for Functional Phrase #3 is a controller including a central processing unit (CPU) (126, Fig. 10) or other logic circuitry, a memory (125, Fig. 10), a clock (124, Figure 10) and input/output circuitry (127, Fig. 10). The memory may store vehicle position information, and a vehicle device code or codes ('278 at col. 6, lines 28-35, col. 11, lines 24-35, col. 22, lines 1-7 (and thereby '460 at col. 3, lines first full paragraph and lines 52-60, col. 4, line 44-col. 5, line 31, col. 5, line 66-col. 6, line 23 and col. 6, lines 36-58 and Figure1, elements 12, 15, and 17) and col. 23, line 41-col. 24, line 13). The corresponding structure for Functional Phrase #3, therefore, is a controller including CPU, operating under stored program control, or other logic circuit, a

memory, a clock and input/output circuitry for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information and for coupling to a vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles.

Analysis of Dependent Claims 2-5, 8, 11-12, 16, and 21

The Examiner finds that these dependent claims do not modify the function nor the corresponding structure for Functional Phrase #3.

Analysis of Dependent claims 6-7, 14-15, and 19-20

The Examiner concludes that dependent claims 6-7, 14-15, and 19-20 modify and/or add to the function of Functional Phrase #3 forming first modified Functional Phrase #3. (See '278 at col. 23, line 67-col. 24, line 3.) Accordingly the Examiner finds that the corresponding structure for first modified Functional Phrase #3 is that same as that as for Functional Phase #3 however for the modified function of communication over the data bus with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles which is for reading from (claim 6, 14, or 19) or writing to (claim 7, 15, or 20) the at least one vehicle device.

Analysis of dependent claims 9-10, 17, and 22

The Examiner concludes that dependent claims 9-10, 17, and 22 modify and/or add to both the structure and the function of Functional Phrase #3 forming second and third modified Functional Phrase #3. (See '278 at col. 23, line 67-col. 24, line 3.) Accordingly the Examiner finds that claims 9, 17 and 22 additionally require a remote transmitter (117, Figure 10) and the corresponding structure for second modified Functional Phrase #3 additionally includes a remote receiver (118, Figure 10) (See '278 at col. 24, last full paragraph) for the additional function of, responsive to the remote transmitter, performing at least one vehicle remote control function responsive to the remote transmitter and that claim 10 additionally requires a remote transmitter (117, Figure 10) and the corresponding structure for third modified Functional Phrase #3 additionally includes a remote receiver (118, Figure 10 (See '278 at col. 24, last full paragraph) for the additional function of, responsive to the remote transmitter, performing at least one vehicle remote control function comprising at least one of a vehicle security function, a remote keyless entry function and a remote engine starting function.

"a downloading interface…"

Analysis of Independent Claim 1

The Examiner concludes the phrase "*a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.*" as recited in claim 1, lines 16-19, (Functional

Phrase #4) invokes 35 U.S.C § 112, 6th paragraph. To support the Examiner's conclusion, the Examiner notes the following 3-Prong analysis:

a) 3-Prong Analysis Prong (A):

As an initial matter, the Examiner finds that Functional Phrase #4 does not use the term "means." The issue arising under Prong (A) then becomes whether or not the claimed phrase "downloading interface" is a generic placeholder for 'means'. *See MPEP 2181 I ¶3 and MPEP 2181 I (C) ¶4.*

The Examiner has reviewed the specification of '278 and finds: (1) insufficient evidence that '278 lexicographically defines the phrase "downloading interface" as a particular structure for performing the entire claimed function; (2) insufficient evidence that '278 indicates that the phrase "downloading interface" refers to a particular structure in the art, that a person having ordinary skill in the art (PHOSITA) would recognize as a structure known to perform the entire claimed function. *See Williamson v. Citrix Online, L.L.C.,* 115 USPQ2d 1105, 1112 (Fed. Cir. 2015).

In addition the Examiner has reviewed the prior art and finds that while the phrase "downloading interface" can be a particular structure in the art, the Examiner finds insufficient evidence that the phrase "device" infers or requires any particular structure as related to the function of Functional Phrase #4.

Accordingly based upon a review of '278 itself and the prior art, the Examiner concludes that the phrase "downloading interface" as set forth in Functional Phrase #4 is being applied as a generic term/placeholder having no particular structure associated therewith as related to the

entire claimed function. Because "downloading interface" is merely a generic placeholder having no specific structure associated therewith, the Examiner concludes that Functional Phrase #4 meets invocation Prong (A).

b) 3-Prong Analysis Prong (B):

Based upon a review of claim 1 in '278, the Examiner finds that the function associated with Functional Phrase #4 is: "*for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.*" ('278 Patent, Claim 1, lines 16-19.)

Because Functional Phrase #4 includes the function expressly noted above, the Examiner concludes that Functional Phrase #4 meets invocation Prong (B). Additionally, the Examiner notes that because nothing in the written description contradicts the plain language describing this function, the function within Functional Phrase #4 will have its ordinary and accustomed meaning.

c) 3-Prong Analysis: Prong (C)

Based upon a review of the entire Functional Phrase #4, the Examiner finds that Functional Phrase #4 does not contain sufficient structure for performing the entire claimed function that is set forth within Functional Phrase #4. In fact, the Examiner finds that Functional Phrase #4 recites very little structure (if any) for performing the claimed function.

Because Functional Phrase #4 does not contain sufficient structure for performing the entire claimed function, the Examiner concludes that Functional Phrase #4 meets invocation Prong (C).

d) Corresponding Structure

Based upon a review of the original disclosure, the Examiner finds that the corresponding structure for Functional Phrase #4 is a downloading interface (Figure 10, 116), e.g. interface circuitry 132 (e.g. logic circuitry or other control circuitry along with switching components) for controlling communication with a downloading device, and either a wireless signal downloading interface (e.g. a wireless receiver 114, such as for temporary connection to the downloading device 115 via any one or more of a number of wireless technologies, such as cellular, satellite, IR, Bluetooth or WiFi technologies (Fig. 11) or a temporary wireless communication link with the downloading device provided by sharing the wireless communications device that sends position data (Fig. 12)) or a wired signal downloading interface (e.g. a connector 133a in the form of a socket to accept a memory card or other data storage medium capable of transferring data or a connector 133a for temporary connection to a mating connector 133b of the downloading device (Fig. 13) wherein the downloading device can be, e.g., a laptop computer, via RS232/429 protocol, USB, FireWire, TCP/IP (Internet), or any other wired protocol.) (See '278 at col. 24, lines 14-51.) The corresponding structure for Functional Phrase #4 is therefore such a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code, e.g. vehicle device code or codes, an instruction to select a code or codes from among those already stored, or the data or sequence to allow the controller

to generate the vehicle device code or codes, for use by said multi-vehicle compatible controller ('278 at col. 24, lines 8-12).

Analysis of Dependent Claims 2-3 and Independent claim 13

The Examiner concludes that dependent claim 2, independent claim 13 and dependent claim 3 modify and/or add to the structure of Functional Phrase #4 forming first and second modified Functional Phrases #4. (See '278 at col. 24, second full paragraph.) Accordingly the Examiner finds that for claim 2 the corresponding structure for first modified Functional Phrase #4 additionally includes the structure of a wired signal downloading interface and that for claims 3 and 13 the corresponding structure for second modified Functional Phrase #4 additionally includes the structure of a wired signal downloading interface comprising a connector for temporary connection to a downloading device.

Analysis of Dependent Claims 4 and 5 and Independent Claim 18

The Examiner concludes that dependent claim 4, independent claim 18 and dependent claim 5 modify and/or add to the structure of Functional Phrase #4 forming third and fourth modified Functional Phrases #4. (See '278 at col. 24, second full paragraph.) Accordingly the Examiner finds that for claim 4 the corresponding structure for third modified Functional Phrase #4 additionally includes the structure of a wireless signal downloading interface and that for claims 5 and 18 the corresponding structure for fourth modified Functional Phrase #4 additionally includes the structure of a wireless signal downloading interface comprising a wireless receiver connector for temporary connection to a downloading device.

Analysis of Dependent Claims 8, 16 and 21

The Examiner concludes these dependent claims modify and/or add to the function of Functional Phrase #4 forming modified, modified second and modified fourth Functional Phrases #4, respectively. (See '278 at col. 24, lines 46-51.) Accordingly the Examiner finds that with regard to claims 8, 16 and 21 the corresponding function for the respective phrases includes permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

Conclusion

Finally, see MPEP 2258, I., G, "During reexamination, claims are given the broadest reasonable interpretation consistent with the specification and limitations in the specification are not read into the claims (*In re Yamamoto*, 740 F.2d 1569, 222 USPQ 934 (Fed. Cir. 1984)). See also MPEP 2111, e.g. "[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313, 75 USPQ2d 1321, 1326 (Fed. Cir. 2005) (*en banc*) and "The ordinary and customary meaning of a term may be evidenced by a variety of sources, including 'the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art." *Phillips v. AWH Corp.*, 415 F.3d at 1314, 75 USPQ2d at 1327.

Rejections based on Prior Art:

Statutory Bases

The following is a quotation of the appropriate paragraphs of pre-AIA 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

> invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under pre-AIA 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim Rejections

Claim(s) 1, 4-8, 11-12, and 18-21 are rejected under pre-AIA 35 U.S.C. 102(b) as anticipated by or, in the alternative, under pre-AIA 35 U.S.C. 103(a) as obvious over U.S. Patent No. 6,330,499 to Chou et al (hereinafter also referred to as '499 or Chou).

The patent to Chou includes a/an publication/issue date more than one year prior to the effective filing date of June 3, 2007 of '278, and thus are available as prior art under 35 USC 102(b) and 35 USC 103.

Claim 1

A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible tracking unit comprising:

See '499 at, e.g., Fig. 1, elements 1000, 100 and 317, col. 2, lines 39-43, Figure 2, esp. elements 330, 335 and the dotted line therebetween, col. 3 lines 33-46 ("The processor 300 is coupled to a vehicle bus 335 through a vehicle bus interface 330. The coupling between the client computer device and the vehicle bus interface 106 of FIG. 3, may be one of RS-232, USB (Universal Serial Bus), IDB (ITS Data Bus), Ethernet, and the like. The vehicle bus interface may support one of vehicle bus standards such as CAN (Controller Area Network) and the Society of Automotive Engineers' SAE J1850 - Class B Data Communication Network Interface. Alternatively, the processor supports some or all of the functions of the vehicle bus interface and connects directly to the vehicle bus 335. The vehicle bus shown in FIG. 2 is an inherent part of all new automobiles. The dotted line is used as an indication that the vehicle bus is built into the vehicle."), col. 3, lines 54-56, col.4, lines 2-38 (esp. "model dependent"), Fig. 3, elements 103 and 104, col. 1, lines 11-17 and col. 6, lines 39-41, col. 7, lines 32-40, and claims 2 and 7-9. Therefore '499 discloses a multi-vehicle compatible, i.e. multi-model compatible, tracking unit for a vehicle comprising a vehicle data extending throughout the vehicle.

a vehicle position determining device;

See *Claim Interpretation/Analysis* section, **"a vehicle position determining device"** *supra*, the discussion of claim 11 infra and '499 at, e.g., Figure 1, element 150A and 317, col. 2,

lines 39-43, col. 3, lines 54-59 ("Optionally, the processor 300 may be coupled to a location sensing device such as a GPS receiver 317 (FIG. 1) to provide vehicle location information. The system may or may not assume the availability of the automatic vehicle position information. Location-related scenario, such as emergency help dispatch may use automatic vehicle positioning …."), col. 7, lines 32-40 and claims 1-2. Therefore '499 discloses the tracking unit comprising "a vehicle position determining device".

a wireless communications device;

See *Claim Interpretation/Analysis* section, **"a wireless communications device"** *supra* and '499 at, e.g., Figure 1, element 150, Figure 2, element 320, col. 2, lines 30-39 ("As shown in FIG. 1, the system 1000 includes a vehicle 10 with a vehicle driver or user 140, having an in-vehicle computing system 100, a client computer device 101 installed to enable vehicle health checkup and remote diagnostics, a communication link 150 (e.g., via wireless base stations 150B, or the like) for communicating vehicle information (e.g., vehicle identification number, (VIN), diagnostic data, and the like). Such a link can be interfaced with an internet 150C, the Internet 150D, or a public (or private) switch telephone network (PSTN) 150E."), col. 3, lines 15-32, Figure 3, elements 107 and 102, and col. 4, lines 39-42. Therefore '499 further discloses the tracking unit comprising "a wireless communications device".

a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

See *Claim Interpretation/Analysis* section, **"a multi-vehicle compatible controller…"** and prior discussion of the preamble, "a vehicle position determining device" and "a wireless communications device". Additionally see Fig. 2, elements 300 and 350, col. 2, lines 44-52 and 55 et seq, col. 3, line 62-col. 4, line 14 and Figure 3, element 101/120. Therefore Chou discloses a CPU operating under stored program/software control, e.g. 300, 101, a memory, e.g. 350, and input/output circuitry, e.g. 330. '499 further discloses time stamping information or data, e.g. test data or fault codes ('499 at col. 5, first full paragraph and the paragraph bridging cols. 7-8 and Figure 4). Therefore Chou is also considered to either implicitly disclose or obviously suggest a clock since it discloses some structure/device for providing an indication of time. Thus, '499 further implicitly or obviously discloses a "a multi-vehicle compatible controller" and such for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information.

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

See *Claim Interpretation/Analysis* section, **"a multi-vehicle compatible controller…"**. See also the prior discussion of the preamble, esp. col. 3 lines 33-46 ("The processor 300 is coupled to a vehicle bus 335 through a vehicle bus interface 330. The coupling between the client computer device and the vehicle bus interface 106 of FIG. 3, may be one of RS-232, USB (Universal Serial Bus), IDB (ITS Data Bus), Ethernet, and the like. The vehicle bus interface may support one of vehicle bus standards such as CAN (Controller Area Network) and the Society of Automotive Engineers' SAE J1850 - Class B Data Communication Network

Interface. Alternatively, the processor supports some or all of the functions of the vehicle bus interface and connects directly to the vehicle bus 335. The vehicle bus shown in FIG. 2 is an inherent part of all new automobiles. The dotted line is used as an indication that the vehicle bus is built into the vehicle."), and col. 4, lines 15-38 ("The vehicle bus interface 120 is responsible for replying to requests for parametric data. It is also responsible for continuously monitoring the vehicle bus 104 for any fault reported by the ECUs 103, in terms of diagnostic trouble codes (DTCs). The vehicle bus interface 120 includes the following modules: vehicle bus adapter 120C, fault detector 120B, and diagnostic data service 120A. The fault detector 120B polls the vehicle bus 104 through the vehicle bus adapter 120C checking for fault codes reported by the vehicle ECUs 103. The vehicle bus adapter 120C translates the messages received from the vehicle bus into the language of the fault detector. It also translates messages from the fault detector into the language of the vehicle bus. **The fault code specifications and protocols of the vehicle may be Original Equipment Manufacturer (OEM) and model dependent.** The term 'vehicle fault codes' is meant to be synonymous with the term 'trouble code' or 'diagnostic trouble code'. A listing of such codes may be found in the publication of the Society of Automotive Engineers, 'SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual'. The diagnostic data service 120A accepts request for vehicle parametric data and retrieves the data using the vehicle bus adapter." (Emphasis added).), and "**said multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information"**. Thus Chou either implicitly discloses or obviously suggests a "multi-vehicle compatible controller" and such controller is coupled to a vehicle data bus, e.g. 335, 104, for communication thereover, e.g. via

330, 120, with at least one vehicle device, e.g. 103, using at least one corresponding vehicle device code, i.e. (DTC), vehicle fault codes/protocols, which is vehicle model dependent, i.e. from among a plurality thereof for "different vehicles".

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

See *Claim Interpretation/Analysis* section, "**a downloading interface…**". See also, e.g., '499 at Figure 1, element 150, Figure 2, elements 320, 360, Figure 3, elements 102, 107, Figure 4, 102, NETWORK INTERFACE, arrow 7,14 and "HTTP, TCP/IP, PPP/SLIP, DIAL-UP, GSM", and Figure 5, 102, NETWORK INTERFACE, arrow 3,9, arrow 4,7, arrow 5,6 and "HTTP, TCP/IP, PPP/SLIP, DIAL-UP, GSM", col. 3, lines 49-53, col. 4, lines 15-19, and 36-46, col. 6, lines 11-14 and 37-47, col. 7, lines 32-40, col. 8, line 65-col. 10, line 11, and claim 10. See also the discussion of "a wireless communications device" limitation *supra* and claims 2-5 and 8 *infra*. '499 discloses, e.g., interface circuitry, e.g. NETWORK INTERFACE, 320, 107, docking facility, and a temporary wireless communication link, e.g. arrow 7, 14, arrow 3, 9, with the downloading device, i.e. TCP/IP(an internet/ the Internet), 201, provided by sharing the wireless communications device, e.g. 102, that sends position data, see, e.g. col. 7, lines 32-40, (see also discussion of claims 2-5) and such structure permits downloading of enabling data, e.g. instruction to gather data, vehicle parameter update/change, related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller, e.g. steps 2-6 in Figure 5. Thus '499 discloses or obviously suggests "a downloading interface" and such

permits downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

Claim 4

The multi-vehicle compatible tracking unit according to claim 1 wherein said downloading interface comprises a wireless signal downloading interface.

See *Claim Interpretation/Analysis* section and discussion of claim 1 *supra*, "downloading interface for …controller" and "a wireless communications device" limitation *supra* esp. Figure 1, 150, Figure 2, elements 300, 320, Figs. 3-5, elements 107, 102, arrow 7, 14, arrow 3, 9, col. 3, lines 15-32 ("The processor is integrated with a network interface 320 to provide communication capability with the remote service center 200. Preferably, the network interface comprises a removable wireless telephone such as the Motorola i1000+ and a docking facility for the wireless phone integrated with the client computer device. Both voice and data connections can be supported by interfacing the processor 300 and the wireless phone. The telephone integration provides basic communication functions. It establishes a data (e.g. TCP/IP) connection with a remote service center (e.g., remote service center 200). Wireless technologies such as GSM (Global System for Mobile Communications), CDMA (Code Division Multiple Access), TOMA (Time Division Multiple Access), iDEN™ (a TOMA-based Motorola technology), and AMPS (Advanced Mobile Phone System) can all be supported. The phone may also be used for wireless voice communications.". Therefore '449 discloses or obviously suggests a wireless signal downloading interface.

Claim 5

The multi-vehicle compatible tracking unit according to claim 4 wherein said wireless signal downloading interface comprises a wireless receiver for temporary connection to a downloading device.

See *Claim Interpretation/Analysis* section and discussion of claim 1, "downloading interface for …controller" limitation and "a wireless communications device" limitation, *supra* (e.g. col. 4, lines 39-43, col. 7, lines 32-40col. 9, lines 1-59, i.e. data link/connection 150, arrows 3,9, 7,14, between wireless phone 102 and server 201 opened and terminated during health checkup process). Therefore '499 teaches or obviously suggests a wireless receiver 102 of the wireless signal downloading interface for temporary connection to a downloading device.

Claim 6

The multi-vehicle compatible tracking unit according to claim 1 wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.

See *Claim Interpretation/Analysis* section and discussion of claim 1 *supra*, e.g. col. 4, lines 15-38 ("The vehicle bus interface 120 is responsible for replying to requests for parametric data. It is also responsible for continuously monitoring the vehicle bus 104 for any fault reported by the ECUs 103, in terms of diagnostic trouble codes (DTCs). The vehicle bus interface 120 includes the following modules: vehicle bus adapter 120C, fault detector 120B, and diagnostic data service 120A. The fault detector 120B polls the vehicle bus 104 through the vehicle bus adapter 120C checking for fault codes reported by the vehicle ECUs 103. The vehicle bus adapter 120C translates the messages received from the vehicle bus into the language of the fault detector. It also translates messages from the fault detector into the language of the vehicle bus.

The fault code specifications and protocols of the vehicle may be Original Equipment Manufacturer (OEM) and model dependent. The term 'vehicle fault codes' is meant to be synonymous with the term 'trouble code' or 'diagnostic trouble code'. A listing of such codes may be found in the publication of the Society of Automotive Engineers, 'SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual'. The diagnostic data service 120A accepts request for vehicle parametric data and retrieves the data using the vehicle bus adapter." (Emphasis added).), col. 5, lines 25-28 ("Similar to the health checkup request, the in-vehicle system collects and uploads a snapshot of vehicle data including any trouble code reported by the ECUs."), col. 6, lines 55-58 ("In such a case, for example, one or more diagnostic trouble codes, generated by the vehicles' ECUs 103, are detected in the vehicle bus interface 120 by the fault detector 120B. These trouble codes are sent to the fault monitor 420 component of the vehicle client computer device 101. The fault monitor may further process these trouble codes and finally sends them to the diagnostic client 421." (Emphasis added).), col. 8, lines col. 9, lines 35-48 ("Then in step 2, the diagnostic client 421 initiates a health checkup session with the diagnostic server 201, and in step 3, the diagnostic server instructs the diagnostic client to gather vehicle data, such as VIN, malfunction codes, and/or a snapshot of the vehicle data. Then in step 4, the diagnostic client 421 requests the data from the diagnostic data service 120A at the vehicle bus interface 120. Then, in step 5, the diagnostic data service interrogates the ECUs 103 via the vehicle bus adapter 120C for the requested data. In step 6, the ECUs 103 provide the requested data and in step 71 the data is returned to the diagnostic client 421. Then, in step 8, the data is in turn transmitted to the diagnostic server 201." (Emphasis added).) and paragraph bridging cols. 9-10.

Therefore, since '499 discloses or obviously suggests fault codes or DTC reported or generated by the at least one vehicle device, '499 discloses or obviously suggests the corresponding at least one vehicle code is for reading from the at least one vehicle device.

Claim 7

The multi-vehicle compatible tracking unit according to claim 1 wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.

See *Claim Interpretation/Analysis* section and discussion of claim 6 *supra.* Since '499 further teaches or obviously suggests the fault codes/DTCs are Original Equipment Manufacturer (OEM) and/or the interface 120 polls or interrogates the ECUS for malfunction or fault codes, '499 discloses or obviously suggest the corresponding at least one vehicle code is for writing to the at least one vehicle device.

Claim 8

The multi-vehicle compatible tracking unit according to claim 1 wherein said downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

See *Claim Interpretation/Analysis* section and discussion of claim 1 *supra,* e.g. '499 at col. 9, lines 28-62 ("Then in step 2, the diagnostic client 421 initiates a health checkup session with the diagnostic server 201, and in step 3, the diagnostic server instructs the diagnostic client to gather vehicle data, such as VIN, malfunction codes, and/or a snapshot of the vehicle data. Then in step 4, the diagnostic client 421 requests the data from the diagnostic data service 120A at the vehicle bus interface 120. Then, in step 5, the diagnostic data service interrogates the

ECUs 103 via the vehicle bus adapter 120C for the requested data. In step 6, the ECUs 103 provide the requested data and in step 71 the data is returned to the diagnostic client 421. Then, in step 8, the data is in turn transmitted to the diagnostic server 201." (Emphasis added).), and Figure 5, arrow 3, 9. Note also the paragraph bridging cols. 9-10. Therefore, '499 discloses or obviously suggests the downloading interface, 107/102, receives at least one programming instruction, e.g. data gather instruction, for the controller 300/101.

Claim 11

The multi-vehicle compatible tracking unit according to claim 1 wherein said wireless position determining device comprises a Global Positioning System (GPS) receiver.

See *Claim Interpretation/Analysis* section and discussion of claim 1, preamble and "a vehicle position determining device" limitation, *supra* (e.g. Figure 1, element 317). Therefore '499 discloses a Global Positioning System (GPS) receiver comprising the vehicle position determining device.

Claim 12

The multi-vehicle compatible tracking unit according to claim 1 further comprising a housing containing said vehicle position determining device, said wireless communications device, said multi-vehicle compatible controller, and said downloading interface.

See '499 at, e.g., elements 10, elements 317 and 101 inside box designated 100 "IN-VEHICLE SYSTEM", Figure 2, col. 2, lines 55-56, col. 3, lines 15-61, Figure 3, element 100 "IN VEHICLE SYSTEM" and col. 4, lines 5-9. Therefore, '499 discloses or obviously suggests

a housing, e.g. 10, "IN VEHICLE SYSTEM", containing said vehicle position determining device, said wireless communications device, said multi-vehicle compatible controller, and said downloading interface.

Claim 18

A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible vehicle tracking unit comprising: a vehicle position determining device; a wireless communications device; a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information; said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller; said downloading interface comprising a wireless receiver for temporary connection to a downloading device.

See discussion of claims 1 and 4-5 *supra*.

Claim 19

The multi-vehicle compatible tracking unit according to claim 18 wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.

See discussion of claim 6 *supra*.

Claim 20

The multi-vehicle compatible tracking unit according to claim 18 wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.

See discussion of claim 7 *supra*.

Claim 21

The multi-vehicle compatible tracking unit according to claim 18 wherein said downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

See discussion of claim 8 *supra*.

Claims 9-10 and 22 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,330,499 to Chou et al (hereinafter also referred to as '499 or Chou) in view of U.S. Patent No. 6,028,537 to Suman et al, (hereinafter also referred to as '537 or Suman).

The patent to Suman includes a/an publication/issue date more than one year prior to the effective filing date of June 3, 2007 of '278, and thus are available as prior art under 35 USC 102(b) and 35 USC 103.

Claim 9

The multi-vehicle compatible tracking unit according to claim 1 further comprising a remote transmitter;

See *Claim Interpretation/Analysis* section and discussion of claims 1 and 8 *supra,* '499 at, e.g., col. 3, lines col. 4, lines 39-42 ("The client computer device 101 performs several functions including communicating to the remote service center 200 by means of the network

interface 107 using the cell phone 102."), col. 5, lines 1-3 ("The in-vehicle system establishes a data connection, using a cellular phone 102, with a diagnostic server at the service center 200,…), col. 7, lines 32-40 ("In this case, a data communication link is established through the network interface 320 to the service center 200, and data containing fault codes, DTCs, vehicle parameter values, and vehicle ID information, is sent to the diagnostic server 201. The size of the data stream is estimated to be on the order of 1 kilobyte. Optional information includes a callback number, GPS coordinates, etc. The exchange of information may be repeated more than once before the data link is closed."), col. 9, lines 28-62 ("Referring now to FIG. 5, a health checkup event flow is presented. The numbers of the steps refer to the numbers found in the flow, as shown in FIG. 5…. Then in step 2, the diagnostic client 421 initiates a health checkup session with the diagnostic server 201, and in step 3, the diagnostic server instructs the diagnostic client to gather vehicle data, such as VIN, malfunction codes, and/or a snapshot of the vehicle data. Then in step 4, the diagnostic client 421 requests the data from the diagnostic data service 120A at the vehicle bus interface 120. Then, in step 5, the diagnostic data service interrogates the ECUs 103 via the vehicle bus adapter 120C for the requested data. In step 6, the ECUs 103 provide the requested data, and in step 7, the data is returned to the diagnostic client 421. Then, in step 8, the data is in turn transmitted to the diagnostic server 201…. The diagnostic server 201 prepares a report and transmits it to the client computer 101…. Thereafter, the data connection is terminated. The above-described health checkup process may be completely automated without intervention or involvement by a person at the remote service center."), Figures and claim 1 ("…a communication system, coupled to said client computer device, for providing remote communication of data including data derived from said monitoring systems of

the vehicle; and a remote service center including a vehicle data store, a server computer, a diagnostic engine, and a communicator for communicating the results of analysis of vehicle information to said client computer device via said communication system, …"). Therefore '499 discloses a remote transmitter, e.g., a communicator of the remote service center. See also the remainder of the discussion of this claim.

and wherein said multi-vehicle compatible controller also performs at least one vehicle remote control function responsive to said remote transmitter.

See discussion of this claim *supra* and, e.g., col. 9, line 63-10, line 11 ("The present invention is not limited to the scenarios and embodiments listed above, but instead may be practiced with a plurality of modifications and extensions. For example, remote health monitoring and diagnostics shares many features with other automotive applications and services. It may be desirable to bundle the remote health monitoring and diagnostics with other services or to extend it with related application functions. For example, the remote diagnostics service could certainly be offered on top of an Emergency/Mayday service (e.g., 'OnStar'). Other applications and services that can be developed or bundled as extensions of the diagnostics services include: breakdown service, network diary, vehicle user manual update, OEM Callback Services, fleet management, theft prevention, vehicle parameter update/change, remote vehicle access, concierge services, etc."). Therefore at the very least '499 suggests the controller, i.e.in-vehicle client computer device 101 and vehicle bus connected interface 120, performing functions, e.g. requests for diagnostic data, responsive to a remote transmitter and remote health/diagnostic services may be practiced/bundled with other services or extensions such as remote vehicle access. However '537 not only teaches a diagnostic system connected to the

vehicle bus for remote diagnostics to be performed on the vehicle but also providing remote control to the vehicles accessories in response to a transmitted control signal from a service center, see, e.g., col. 15, line 52-col. 16, line 15 and Fig. 4. Therefore to employ the multi-vehicle compatible controller responsive to a remote transmitter, e.g. the communicator of the remote service center, in '499, if not already, as known from '537 to in order to provide the desired remote vehicle access, e.g. door unlocking, i.e. at least one vehicle remote control function, would have been obvious to one of ordinary skill in the art. Therefore the prior art obviously teaches said multi-vehicle compatible controller also performing at least one vehicle remote control function responsive to said remote transmitter.

Claim 10

The multi-vehicle compatible tracking unit according to claim 9 wherein the at least one vehicle remote control function comprises at least one of a vehicle security function, a remote keyless entry function, and a remote engine starting function.

See discussion of claim 9 *supra*, e.g. the prior art teaches the at least one vehicle remote control function of remote keyless entry.

Claim 22

The multi-vehicle compatible tracking unit according to claim 18 further comprising a remote transmitter; and wherein said multi-vehicle compatible controller also performs at least one vehicle remote control function responsive to said remote transmitter.

See discussion of claim 9 *supra*.

Claims 2-3 and 13-16 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,330,499 to Chou et al (hereinafter also referred to as '499 or Chou) in view of U.S. Patent No. 5,732,074 to Spaur et al (hereinafter also referred to as '074 or Spaur).

The patent to Spaur includes a/an publication/issue date more than one year prior to the effective filing date of June 3, 2007 of '278, and thus are available as prior art under 35 USC 102(b) and 35 USC 103.

Claim 2

The multi-vehicle compatible tracking unit according to claim 1 wherein said downloading interface comprises a wired signal downloading interface.

See discussion of "**a downloading interface…**" and *Claim Interpretation/Analysis* section *supra*, e.g. Figure 2, elements 320 and 300, col. 2, lines 59-63 ("FIG. 2 is a block diagram providing an exemplary component overview for the in-vehicle hardware. The in-vehicle hardware provides a platform for the client computer device 101 and for the system functions shown in the architectural design in FIG. 3. As shown in FIG. 2, the in-vehicle hardware includes a processor 300 coupled with memory 350, a user interface 310, a network interface 320, a vehicle interface 330, at least one persistent storage device 340, and optional external devices 360."), col. 3, lines 16-32 ("The processor is integrated with a network interface 320 to provide communication capability with the remote service center 200. Preferably, the network interface comprises a removable wireless telephone such as the Motorola i1000+ and a docking facility for the wireless phone integrated with the client computer device. Both voice

and data connections can be supported by interfacing the processor 300 and the wireless phone. The telephone integration provides basic communication functions. It establishes a data (e.g. TCP/IP) connection with a remote service center (e.g., remote service center 200). Wireless technologies such as GSM (Global System for Mobile Communications), CDMA (Code Division Multiple Access), TDMA (Time Division Multiple Access), iDEN.TM. (a TDMA-based Motorola technology), and AMPS (Advanced Mobile Phone System) can all be supported. The phone may also be used for wireless voice communications."), col. 3, last paragraph, col. 4, lines 7-9, Figure 3, "NETWORK INTERFACE" 107, and col. 4, lines 39-43. This claim requires the downloading interface comprising a wired signal downloading interface. While '499 teaches the signal downloading interface 320, 107, 102 coupled to the processor 300 and comprising a docking facility "integrated" with the computer device and a removeable cellular phone, it does specifically teach the interface being "wired". See however '074 at, e.g., Figure 2, elements 80-82, 30 and col, 7, lines 45 et seq and thereby, '177 at, e.g., Figures 4 and 7, abstract, lines 1-5, col. 1, first and third full paragraphs, col. 2, lines 4-16, col. 3, second full paragraph, col. 5, lines 60-62, i.e. a known cellular phone/controller/processor interface which is wired. Therefore it would have been obvious to one of ordinary skill in the art to substitute a wired cellular phone interface, e.g., a connector/cable to removeably attach 102 and 107, for the '499 cellular phone interface, if such is not already "wired", for the predictable result of interconnecting the cellular phone and processor/computer. Therefore the prior art obviously teaches the "downloading interface" comprises a wired signal downloading interface.

Claim 3

The multi-vehicle compatible tracking unit according to claim 2 wherein said wired signal downloading interface comprises a connector for temporary connection to a downloading device.

See *Claim Interpretation/Analysis* section and discussion of claims 1-2 *supra*, e.g., Fig. 3, elements 102 and 107, i.e. cell phone attached to network interface, and col. 3, lines 17-21 and cited portions of '074 and '177. The prior art obviously teaches a connector for temporary connection between 107 and 102 and thereby, the wired signal downloading interface comprising a connector for temporary connection to a downloading device, e.g. an internet, the Internet.

Claim 13

A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible vehicle tracking unit comprising: a vehicle position determining device; a wireless communications device; a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information; said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller; said downloading interface comprising a connector for temporary connection to a downloading device.

See discussion of claims 1-3 *supra*.

Claim 14

The multi-vehicle compatible tracking unit according to claim 13 wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.

See discussion of claim 6 *supra.*

Claim 15

The multi-vehicle compatible tracking unit according to claim 13 wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.

See discussion of claim 7 *supra.*

Claim 16

The multi-vehicle compatible tracking unit according to claim 13 wherein said downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

See discussion of claim 8 *supra.*

Claim 17 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,330,499 to Chou et al (hereinafter also referred to as '499 or Chou) in view of U.S. Patent No. 6,028,537 to Suman et al, (hereinafter also referred to as '537 or Suman) and U.S. Patent No. 5,732,074 to Spaur et al (hereinafter also referred to as '074 or Spaur).

Claim 17

The multi-vehicle compatible tracking unit according to claim 13 further comprising a remote transmitter; and wherein said multi-vehicle compatible controller also performs at least one vehicle remote control function responsive to said remote transmitter.

See discussion of claim 9 *supra*.

Finality

THIS ACTION IS MADE FINAL.

A shortened statutory period for response to this action is set to expire TWO from the mailing date of this action.

Extensions of time under 37 CFR 1.136(a) do not apply in reexamination proceedings. The provisions of 37 CFR 1.136 apply only to "an applicant" and not to parties in a reexamination proceeding. Further, in 35 U.S.C. 305 and in 37 CFR 1.550(a), it is required that reexamination proceedings "will be conducted with special dispatch within the Office."

Extensions of time in reexamination proceedings are provided for in 37 CFR 1.550(c). A request for extension of time must specify the requested period of extension and it must be accompanied by the petition fee set forth in 37 CFR 1.17(g). Any request for an extension in a third party requested ex parte reexamination must be filed on or before the day on which action by the patent owner is due, and the mere filing of a request will not effect any extension of time. A request for an extension of time in a third party requested ex parte reexamination will be granted only for sufficient cause, and for a reasonable time specified. Any request for extension in a patent owner requested ex parte reexamination (including

reexamination ordered under 35 U.S.C. 257) for up to two months from the time period set in the Office action must be filed no later than two months from the expiration of the time period set in the Office action. A request for an extension in a patent owner requested ex parte reexamination for more than two months from the time period set in the Office action must be filed on or before the day on which action by the patent owner is due, and the mere filing of a request for an extension for more than two months will not effect the extension. The time for taking action in a patent owner requested ex parte reexamination will not be extended for more than two months from the time period set in the Office action in the absence of sufficient cause or for more than a reasonable time.

The filing of a timely first response to this final rejection will be construed as including a request to extend the shortened statutory period for an additional two months. In no event, however, will the statutory period for response expire later than SIX MONTHS from the mailing date of the final action. See MPEP § 2265.

Prior Art

It is again noted that the 1994 edition of the SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards submitted as Exhibit G (hereinafter also referred to as 1994 SAE Manual or 94SAE) is the 1994 version of a publication of the Society of Automotive Engineers, "SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual", which includes the Society of Automotive Engineers' vehicle bus standards SAE J1850 - Class B Data Communication Network Interface as referred to by '499. See 94SAE at, e.g., SAE J1850, page 159, sections 4.2-4.2.2 regarding "manufacturer-specific" fault/(DTC)

codes specifications and protocols. Similarly the 1997 edition of the SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards submitted as Exhibit H (hereinafter also referred to as 1997 SAE Manual or 97SAE) is the 1997 version of a publication of the Society of Automotive Engineers, "SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual", which includes the Society of Automotive Engineers' vehicle bus standards SAE J1850 - Class B Data Communication Network Interface as referred to by '499.

Conclusion

Extensions of Time

Extensions of time under 37 CFR 1.136(a) will not be permitted in these proceedings because the provisions of 37 CFR 1.136 apply only to "an applicant" and not to parties in a reexamination proceeding. Additionally, 35 U.S.C. 305 requires that reexamination proceedings "will be conducted with special dispatch" (37 CFR 1.550(a)). Extension of time in *ex parte* reexamination proceedings are provided for in 37 CFR 1.550(c).

Notification of Concurrent Proceedings

The patent owner is reminded of the continuing responsibility under 37 CFR 1.565(a), to apprise the Office of any litigation activity, or other prior or concurrent proceeding, involving Patent No. 8,032,278 throughout the course of this reexamination proceeding. The third party requester is also reminded of the ability to similarly apprise the Office of any such activity or

proceeding throughout the course of this reexamination proceeding. See MPEP §§ 2207, 2282 and 2286.

Amendment in Reexamination Proceedings

Patent owner is notified that any proposed amendment to the specification and/or claims in this reexamination proceeding must comply with 37 CFR 1.530(d)-(j), must be formally presented pursuant to 37 CFR 1.52(a) and (b), and must contain any fees required by 37 CFR 1.20(c). See MPEP § 2250(IV) for examples to assist in the preparation of proper proposed amendments in reexamination proceedings.

Submissions

In order to insure full consideration of any amendments, affidavits or declarations or other documents as evidence of patentability, such documents must be submitted in response to the first Office action on the merits (which does not result in a close of prosecution). Submissions after the second Office action on the merits, which is intended to be a final action, will be governed by the requirements of 37 CFR 1.116, after final rejection and by 37 CFR 41.33 after appeal, which will be strictly enforced.

IDS Submissions

Regarding IDS submissions MPEP 2256 recites the following: "Where patents, publications, and other such items of information are submitted by a party (patent owner or

requester) in compliance with the requirements of the rules, the requisite degree of consideration to be given to such information will be normally limited by the degree to which the party filing the information citation has explained the content and relevance of the information." Accordingly, the IDS submissions have been considered by the Examiner only with the scope required by MPEP 2256.

Service of Papers

After filing of a request for *ex parte* reexamination by a third party requester, any document filed by either the patent owner or the third party requester must be served on the other party (or parties where two or more third party requester proceedings are merged) in the reexamination proceeding in the manner provided in 37 CFR 1.248. The document must reflect service or the document may be refused consideration by the Office. See 37 CFR 1.550(f).

Correspondence

All correspondence relating to this ex parte reexamination proceeding should be directed:

By Mail to: Mail Stop *Ex Parte* Reexam
Central Reexamination Unit
Commissioner for Patents
United States Patent & Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

By FAX to: (571) 273-9900
Central Reexamination Unit

By hand: Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Registered users of EFS-Web may alternatively submit such correspondence via the electronic filing system EFS-Web, at https://efs.uspto.gov/efile/myportal/efs-registered. EFS-Web offers the benefit of quick submission to the particular area of the Office that needs to act on the correspondence. Also, EFS-Web submissions are "soft scanned" (i.e., electronically uploaded) directly into the official file for the reexamination proceeding, which offers parties the opportunity to review the content of their submissions after the "soft scanning" process is complete.

Any inquiry concerning this communication should be directed to the Central Reexamination Unit at telephone number 571-272-7705.

Other useful telephone numbers:

Reexamination Practice (571) 272-7703

/Karin M. Reichle/
Examiner, CRU
Art Unit 3992

Conferees:
/J. W./
Primary Examiner, Art Unit 3992

/WHC/
SPRS, Art Unit 3992

Office Action in Ex Parte Reexamination	Control No. 90/013,851	Patent Under Reexamination 8032278	
	Examiner Karin Reichle	Art Unit 3992	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

a. ☒ Responsive to the communication(s) filed on *6/12/2017* .
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

b. ☒ This action is made FINAL.

c. ☐ A statement under 37 CFR 1.530 has not been received from the patent owner.

A shortened statutory period for response to this action is set to expire *2* month(s) from the mailing date of this letter. Failure to respond within the period for response will result in termination of the proceeding and issuance of an *ex parte* reexamination certificate in accordance with this action. 37 CFR 1.550(d). **EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).** If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. ☐ Notice of References Cited by Examiner, PTO-892.
2. ☐ Information Disclosure Statement, PTO/SB/08.
3. ☐ Interview Summary, PTO-474.
4. ☐ _____.

Part II SUMMARY OF ACTION

1a. ☒ Claims *1-22* are subject to reexamination.
1b. ☐ Claims _____ are not subject to reexamination.
2. ☐ Claims _____ have been canceled in the present reexamination proceeding.
3. ☐ Claims _____ are patentable and/or confirmed.
4. ☒ Claims *1-22* are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ The drawings, filed on _____ are acceptable.
7. ☐ The proposed drawing correction, filed on _____ has been (7a) ☐ approved (7b) ☐ disapproved.
8. ☐ Acknowledgment is made of the priority claim under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the certified copies have
   1 ☐ been received.
   2 ☐ not been received.
   3 ☐ been filed in Application No. _____ .
   4 ☐ been filed in reexamination Control No. _____.
   5 ☐ been received by the International Bureau in PCT application No. _____.
   * See the attached detailed Office action for a list of the certified copies not received.
9. ☐ Since the proceeding appears to be in condition for issuance of an *ex parte* reexamination certificate except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte* Quayle, 1935 C.D. 11, 453 O.G. 213.
10. ☐ Other: _____

cc: Requester (if third party requester)

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	90013851	8032278
	Examiner	Art Unit
	KARIN REICHLE	3992

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner

SEARCH NOTES		
Search Notes	Date	Examiner
Prosecution History set forth on BIB sheet reviewed. Also reviewed 90/013,659 and 90/013741 referred to in the Request.	11/16/2016, updated 3/20/2017	/KR/
Reviewed 90013832	3/20/2017	/KR/
Updated Review of prosecution history and related reexamination files referenced in 6/12/2017 response	6/29/2017	/KMR?/KR/

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

In the Claims:

This listing of claims replaces all prior versions and listings of claims in the application.

1. (Pending) A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible tracking unit comprising:

a vehicle position determining device;

a wireless communications device;

a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

2. (Pending) The multi-vehicle compatible tracking unit according to claim 1 wherein said downloading interface comprises a wired signal downloading interface.

3. (Pending) The multi-vehicle compatible tracking unit according to claim 2 wherein said wired signal downloading

interface comprises a connector for temporary connection to a downloading device.

4. (Pending) The multi-vehicle compatible tracking unit according to claim 1 wherein said downloading interface comprises a wireless signal downloading interface.

5. (Pending) The multi-vehicle compatible tracking unit according to claim 4 wherein said wireless signal downloading interface comprises a wireless receiver for temporary connection to a downloading device.

6. (Pending) The multi-vehicle compatible tracking unit according to claim 1 wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.

7. (Pending) The multi-vehicle compatible tracking unit according to claim 1 wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.

8. (Pending) The multi-vehicle compatible tracking unit according to claim 1 wherein said downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

9. (Pending) The multi-vehicle compatible tracking unit according to claim 1 further comprising a remote transmitter; and wherein said multi-vehicle compatible

controller also performs at least one vehicle remote control function responsive to said remote transmitter.

10. (Pending) The multi-vehicle compatible tracking unit according to claim 9 wherein the at least one vehicle remote control function comprises at least one of a vehicle security function, a remote keyless entry function, and a remote engine starting function.

11. (Pending) The multi-vehicle compatible tracking unit according to claim 1 wherein said wireless position determining device comprises a Global Positioning System (GPS) receiver.

12. (Pending) The multi-vehicle compatible tracking unit according to claim 1 further comprising a housing containing said vehicle position determining device, said wireless communications device, said multi-vehicle compatible controller, and said downloading interface.

13. (Pending) A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible vehicle tracking unit comprising:

a vehicle position determining device;

a wireless communications device;

a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller;

said downloading interface comprising a connector for temporary connection to a downloading device.

14. (Pending) The multi-vehicle compatible tracking unit according to claim 13 wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.

15. (Pending) The multi-vehicle compatible tracking unit according to claim 13 wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.

16. (Pending) The multi-vehicle compatible tracking unit according to claim 13 wherein said downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

17. (Pending) The multi-vehicle compatible tracking unit according to claim 13 further comprising a remote transmitter; and wherein said multi-vehicle compatible

controller also performs at least one vehicle remote control function responsive to said remote transmitter.

18. (Pending) A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible vehicle tracking unit comprising:

a vehicle position determining device;

a wireless communications device;

a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller;

said downloading interface comprising a wireless receiver for temporary connection to a downloading device.

19. (Pending) The multi-vehicle compatible tracking unit according to claim 18 wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.

20. (Pending) The multi-vehicle compatible tracking unit according to claim 18 wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.

21. (Pending) The multi-vehicle compatible tracking unit according to claim 18 wherein said downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

22. (Pending) The multi-vehicle compatible tracking unit according to claim 18 further comprising a remote transmitter; and wherein said multi-vehicle compatible controller also performs at least one vehicle remote control function responsive to said remote transmitter.

Electronic Acknowledgement Receipt

EFS ID:	30397804
Application Number:	90013851
International Application Number:	
Confirmation Number:	8717
Title of Invention:	Vehicle Tracking Unit with Downloadable Codes and Associated Methods
First Named Inventor/Applicant Name:	8032278
Correspondence Address:	CHRISTOPHER F. REGAN, ESQUIRE ALLEN, DYER, DOPPELT, MILBRATH & GILCHRIST, P.A. P. O. BOX 3791 - ORLANDO FL 32802-3791 US 407-841-2330 -
Filer:	Jack G. Abid/sheryllee scheibe
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Attorney Docket Number:	C13-03896.RE2
Receipt Date:	18-SEP-2017
Filing Date:	28-OCT-2016
Time Stamp:	17:08:27
Application Type:	Reexam (Patent Owner)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		ss58106rex2resp.pdf	1346531 cda3bc9d4c24bf9ef14d65a70f624dd2fcca53a7	yes	41

Multipart Description/PDF files in .zip description		
Document Description	**Start**	**End**
Amendment/Req. Reconsideration-After Non-Final Reject	1	1
Claims	2	7
Applicant Arguments/Remarks Made in an Amendment	8	40
Reexam Certificate of Mailing	41	41

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2		EXHIBITS.pdf	19021436 b06358a9ffb7873fbb10585cdd1e5d89fb943d90	yes	440

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Miscellaneous Incoming Letter	1	6
Miscellaneous Incoming Letter	7	33
Miscellaneous Incoming Letter	34	41
Miscellaneous Incoming Letter	42	51
Miscellaneous Incoming Letter	52	368
Miscellaneous Incoming Letter	369	375
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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

EXHIBIT 1

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/013,587	09/14/2015	8032278	C13-03895	8867

7590 12/01/2016

CHRISTOPHER R. REGAN, ESQ.
ALLEN, DYER, DOPPELT, MILBRATH & GILCHRIST, PA
P O BOX 3791
ORLANDO, FL 32802-3791

EXAMINER
GRAHAM, MATTHEW C

ART UNIT	PAPER NUMBER
3993	

MAIL DATE	DELIVERY MODE
12/01/2016	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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SUITE 1050

ANAHEIM, CA 92806

EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM

REEXAMINATION CONTROL NO. *90/013,587*.

PATENT NO. *8032278*.

ART UNIT *3993*.

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

Notice of Intent to Issue Ex Parte Reexamination Certificate	Control No.	Patent Under Reexamination	
	90/013,587	8032278	
	Examiner	Art Unit	AIA (First Inventor to File) Status
	MATTHEW C. GRAHAM	3993	No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

1. ☒ Prosecution on the merits is (or remains) closed in this *ex parte* reexamination proceeding. This proceeding is subject to reopening at the initiative of the Office or upon petition. *Cf.* 37 CFR 1.313(a). A Certificate will be issued in view of
   - (a) ☒ Patent owner's communication(s) filed: *7/6/2016*.
   - (b) ☐ Patent owner's failure to file an appropriate timely response to the Office action mailed: _____.
   - (c) ☐ Patent owner's failure to timely file an Appeal Brief (37 CFR 41.31).
   - (d) ☐ The decision on appeal by the ☐ Board of Patent Appeals and Interferences ☐ Court dated _____
   - (e) ☐ Other: _____.
2. The Reexamination Certificate will indicate the following:
   - (a) Change in the Specification: ☐ Yes ☒ No
   - (b) Change in the Drawing(s): ☐ Yes ☒ No
   - (c) Status of the Claim(s):
     - (1) Patent claim(s) confirmed: *1-22*.
     - (2) Patent claim(s) amended (including dependent on amended claim(s)): _____
     - (3) Patent claim(s) canceled: _____.
     - (4) Newly presented claim(s) patentable: _____.
     - (5) Newly presented canceled claims: _____.
     - (6) Patent claim(s) ☐ previously ☐ currently disclaimed: _____
     - (7) Patent claim(s) not subject to reexamination: _____.
3. ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
4. ☒ Note the attached statement of reasons for patentability and/or confirmation. Any comments considered necessary by patent owner regarding reasons for patentability and/or confirmation must be submitted promptly to avoid processing delays. Such submission(s) should be labeled: "Comments On Statement of Reasons for Patentability and/or Confirmation."
5. ☐ Note attached NOTICE OF REFERENCES CITED (PTO-892).
6. ☐ Note attached LIST OF REFERENCES CITED (PTO/SB/08 or PTO/SB/08 substitute).
7. ☐ The drawing correction request filed on _____ is: ☐ approved ☐ disapproved.
8. ☐ Acknowledgment is made of the priority claim under 35 U.S.C. § 119(a)-(d) or (f).
   a)☐ All b)☐ Some* c)☐ None of the certified copies have
   - ☐ been received.
   - ☐ not been received.
   - ☐ been filed in Application No. _____.
   - ☐ been filed in reexamination Control No. _____.
   - ☐ been received by the International Bureau in PCT Application No. _____.

   * Certified copies not received: _____.
9. ☐ Note attached Examiner's Amendment.
10. ☐ Note attached Interview Summary (PTO-474).
11. ☐ Other: _____.

All correspondence relating to this reexamination proceeding should be directed to the **Central Reexamination Unit** at the mail, FAX, or hand-carry addresses given at the end of this Office action.

cc: Requester (if third party requester)

NIRC

STATEMENT OF REASONS FOR PATENTABILITY AND/OR CONFIRMATION

1. The following is an examiner's statement of reasons for patentability and/or confirmation of the claims found patentable in this reexamination proceeding: the Examiner agrees that the declarations by Suman and McAlexander provide sufficient evidence that Suman and Spaur each fail to disclose the multi-vehicle compatible controller as recited in independent claims 1, 13 and 18. Claims 2-12, 14-17 and 19-22 are considered to be patentable due to their dependency on claims 1, 13 and 18, respectively.

Any comments considered necessary by PATENT OWNER regarding the above statement must be submitted promptly to avoid processing delays. Such submission by the patent owner should be labeled: "Comments on Statement of Reasons for Patentability and/or Confirmation" and will be placed in the reexamination file.

2. Any inquiry concerning this communication should be directed to Matthew C. Graham at telephone number 571-272-7116.

Please mail any communications to:

Attn: Mail Stop "Ex Parte Reexam"
Central Reexamination Unit
Commissioner for Patents
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Please FAX any communications to:

(571) 273-9900
Central Reexamination Unit

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Attn: Central Reexamination Unit
Randolph Building, Lobby Level
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the Reexamination Legal Advisor or Examiner, or as to the status of this proceeding, should be directed to the Central Reexamination Unit at telephone number (571) 272-7705.

Signed:

/Matthew C. Graham/

Matthew C. Graham
CRU Examiner
3993
(571) 272-7116

Conferees: /GAS/
/PCE/

EXHIBIT 2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of **KENNETH E. FLICK**	
Request for Reexamination of **U.S. PATENT NO.8,032,278**	
Control No. **90/013,587**	Attorney Docket No.: C13-03895(0058106CIP1_REX)
Confirmation No. 8867	
Filing Date: SEPTEMBER 14, 2015	Examiner: M. GRAHAM
For: **VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS**	Art Unit: 3993

RULE 132 DECLARATION
BY JOSEPH C. McALEXANDER, III

I, the undersigned, hereby declare that:

Background

1. I am the Founder and President of McAlexander Sound, formerly IP Director of CCI and VP of EPI Technologies, Inc., and have 43 years of experience in microcircuit and semiconductor technologies, including: device design, fabrication, assembly, testing, and marketing, and control system design, analysis, quality, reliability, and defect/failure analysis at Texas Instruments.

2. I am Registered Professional Engineer (#79454) in the State of Texas and hold a Bachelor of Science degree in Electrical Engineering from North Carolina State University.

3. I am an inventor on 31 U.S. patents and a number of foreign patents, and I am familiar with the patent process.

4. I have been an expert witness and technical consultant for the past 26 years in IP matters related to product/process analysis and investigation.

5. I prepared expert reports and provided trial testimony in the case of Omega Patents, LLC (the '278 Patent Owner) v. Calamp Corp. (the Requester) that recently concluded in the Middle District of Florida. In that Calamp litigation the '278 patent was asserted and determined by the jury to be not invalid, to be infringed by Calamp, and that Calamp acted despite an objectively high likelihood that its actions infringed a valid patent, and that this objectively high likelihood of infringement was either known or so obvious that it should have been known to CalAmp.

6. I have been retained by the Patent Owner to provide technical consultation in the present reexamination of the '278 patent, particularly with respect to addressing rejections based upon U.S. Patent No. 5,732,074 to Spaur et al.

The '278 Patent

7. I have extensively reviewed the '278 patent, along with its file history, and arguments advanced by Requester's trial expert, Mr. Andrews, as part of my work on behalf of the Patent Owner during the course of the Calamp

litigation. I also reviewed the materials again for the analysis provided herein.

8. I have reviewed the Official Action dated May 6, 2016 for the reexamination of the '278 patent.

9. I have reviewed Exhibits 14 and 15 from the expert report of Requester's trial expert, Mr. Andrews, (attached hereto for the convenience of the Examiner) that were asserted to describe the actual CellPort Labs products of the Spaur et al. patent.

10. I have also reviewed the Rule 132 Declaration being submitted concurrently herewith by Michael J. Suman, the lead inventor on U.S. Patent No. 6,028,537, i.e., another reference being cited in the Official Action. In that Declaration, Mr. Suman confirms my understanding that at the time of the Spaur et al. patent (filed about six months before the filing of the provisional application leading to the Suman et al. patent), the vehicle device codes were proprietary to different manufacturers, and even different model lines offered by manufacturers; and that the device codes were not made freely available, and were quite difficult to obtain.

11. I understand that the '278 patent includes three independent claims and twenty-two claims total. Representative Claim 1 is directed to a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout

the vehicle. The multi-vehicle compatible tracking unit includes a vehicle position determining device, a wireless communications device, and a multi-vehicle compatible controller for cooperating with the vehicle position determining device and the wireless communications device to send vehicle position information. The multi-vehicle compatible controller communicates over the vehicle data bus with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. A downloading interface is included for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller.

12. I understand that the specification of the '278 patent at column 24, lines 8-12, provides that "[t]he enabling data may be the vehicle device code or codes, an instruction to select a code or codes from among those already stored, or the data or sequence to allow the controller to generate the vehicle device code or codes, for example."

13. I further understand that independent Claim 13 of the '278 patent recites that the downloading interface includes a connector for temporary connection to a downloading device, and that independent Claim 18 recites that the downloading interface includes a wireless receiver for temporary connection to a downloading device.

Analysis of Spaur et al.

14. I attended the in-person interview kindly granted to Patent Owner's legal representatives and me on June 16, 2016, during which the Spaur et al. reference, among other things, was discussed.

15. I understand that during the in-person interview, Patent Owner's legal representatives clarified to the Examiners that Spaur et al. discloses sending position data from a GPS receiver via the cellular phone (col. 14, lines 4-25). In other words, the addition of Johnson et al. with Spaur et al. was not needed in view of the contentions with respect to Spaur et al., since Johnson et al. was cited only for its teaching of a GPS receiver sending position information. Accordingly, I have limited my analysis to the teachings of Spaur et al.

16. As noted in the Ex Parte Reexamination Interview Summary dated 6/21/16, the Examiners helpfully suggested that Patent Owner "provide evidence relating to the use of device codes in vehicles at the time of the invention in relation to their inherent use in Suman and Spaur."

17. I understand that, to rely upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.

18. I confirm and reproduce below the portion of my analysis relating to Spaur et al. and the '278 patent from my expert report in the Calamp litigation:

> Spaur is directed to enhancing communication between a remote site and vehicle, especially involving information transfer and storage, including data and control, using standard communication protocol and hardware network features. Specifically, Spaur contemplates communication with a vehicle via modem (72/76, 82) from a browser terminal via the internet to a cellular based vehicle network (82). A protocol controller and converter (3) translates the information transferred and communicates that information via a Controller Area Network (CAN) interface via the CN bus to the different vehicle devices. The flow of communication is bi-directional.
>
> Mr. Andrews [Calamp's trial expert] argues that Spaur discloses a multi-vehicle compatible controller. I disagree. The CAN controller described in Spaur does not specify, in fact is silent, that it communicates with a vehicle device "using at least one corresponding vehicle device code from among a plurality thereof for different vehicles," as required by independent claims 1 and 13. Further, Spaur fails to specify that it has a download interface for "downloading of enabling data… for use by said multi-vehicle compatible controller," also required by both independent claims 1 and 13. Spaur fails to disclose device codes.

19. The Official Action incorporates by reference a listing of how Spaur et al. (and Johnson et al.) relates to the claims of the '278 patent from Requester's Exhibit F. From Exhibit F, the following sections of Spaur et al. are asserted

as disclosing a multi-vehicle controller using at least one corresponding device code from among a plurality thereof for different vehicles:

> The controller 30 is responsible for a number of functions related to understanding and acting on information received from one or more remote stations 10, obtaining and responding to requested information and operatively functioning with information including data available from other elements in the vehicle. In that regard, the controller 30 communicates with a controller interface 34 that electrically links the controller 30 with a vehicle standardized network 40. The vehicle standardized network 40 includes a controller unit 44 that provides appropriate message and data handling functions associated with sending and receiving information including data from each of a plurality of physical vehicle devices 50 that are operatively connected to a bus 46 of the vehicle standardized network 40. Like the remote standardized network 14, the vehicle standardized network 40 is an established and previously developed network that interfaces with components in a vehicle, such as engine related components in order to provide desired or requested data concerning the operations or status of these components. (Col. 6, lines 31-50).

> This further standardized communications network is responsible for handling the communication exchange functions associated with sending and receiving information relative to the vehicle devices 50. In a preferred embodiment, this further standardized network is a network that has been previously devised and is commonly used in a number of makes and models of vehicles. This communications network is defined as the controller area network (CAN) 124. Although the

> CAN 124 has previously commonly been used in operative association with automotive electronics including engine control elements, sensors, lamps, electric windows etc., the present invention also enables the CAN 124 to be used with a variety of other devices contained in the vehicle, such as the previously described devices. (Col. 10, lines 15-29).
>
> In interfacing with the CAN 124, the controller 30 also has device drivers 128 that are useful in achieving desired communications in both directions between the CAN 124 and the controller 30. For example, the processor 90 is able to obtain data or other information from the vehicle devices 50a-50n using the device drivers 128 and which information can be used by the processor 90 including, for example, storing data in the data memory 106 for subsequent access and transmission to a remote station 10. (Col. 10, lines 55-64.

Based upon my knowledge, experience and analysis, I do not believe that these cited portions of Spaur et al. disclose the multi-vehicle compatible controller as in the claims of the '278 patent. In addition, I also believe that, based upon these portions of Spaur et al., or any other portions of Spaur et al., there is no inherent teaching of the multi-vehicle compatible controller as in the '278 patent claims. In other words, it does not necessarily flow that Spaur et al. would have a multi-vehicle compatible controller using the device codes as in the '278 patent claims.

20. I also point out that Exhibits 14 and 15 from Requester's technical trial expert, Mr. Andrews, and describing the actual CellPort Labs products as disclosed in Spaur et al.,

also fail to have any express or inherent teaching of the multi-vehicle compatible controller as in the '278 patent claims. Indeed, Mr. Andrews cited the CellPort Labs products disclosed in Exhibits 14 and 15 for the teaching of a common housing as follows:

> The GPS receiver, the wireless communications device, the controller and the downloading interface are all electronically coupled. It would have been obvious to one skilled in the art to place them in a single housing, as was done with the actual CellPort Labs products, the C/P Connect and the CP 2100 (the '074 [Spaur et al.] patent is assigned to Cell-Port). (Andrews' Expert Report, page 181).

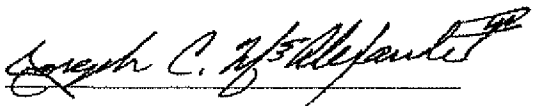
21. The Official Action also cites to the following language from col. 4, lines 38-45 of Spaur et al. for the alleged teaching of the downloading interface as recited in the '278 patent claims:

> Preferably, the controller in the vehicle is also associated with an interface for communication with one or more available systems, such as an RS232 connection, an Ethernet connection and/or a PCMCIA unit. In a related embodiment, the controller includes a direct communications port for receiving and sending information without requiring the wireless device and the Internet connection to the wireless device.

Again, based upon my knowledge, experience and analysis, I do not believe that these cited portions of Spaur et al., or any other portions of Spaur et al., disclose (either directly or through inherency) a downloading interface for permitting

downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller as found in the claims of the '278 patent. Spaur et al. does disclose an interface in combination with a controller; however, Spaur et al. fails to disclose the multi-vehicle compatible controller and the downloading interface as recited in the claims of the '278 patent. In addition, there is nothing in the description of the corresponding CellPort Labs actual products (Exhibits 14 and 15) that discloses the multi-vehicle compatible controller and the downloading interface as recited in the claims of the '278 patent.

22. I hereby declare further that all statements made herein are of our own knowledge and are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful and false statements may jeopardize the validity of the application or any patent issued thereon.



Joseph C. McAlexander, III

July 6, 2016
Date

EXHIBIT 14

MOBILEWEB™
CHANGING THE FACE OF MOBILE NETWORKING THROUGH UNIVERSAL WIRELESS CONNECTIVITY

Pat Kennedy
CellPort Labs, Inc.
885 Arapahoe Avenue
Boulder, CO 80303

The world is going wireless. The U.S. alone claims over 32 million of the world's 100+ million cellular and Personal Cellular Service (PCS) subscribers. The annual global growth rate still exceeds 35 percent. And 80 percent of users worldwide rely on handheld, pocket-sized phones.

The Internet's World Wide Web connectivity phenomenon is happening even faster. Enabled by CERN HTTP server development in 1991 and the NCSA Mosaic web browser 1992, the ease of establishing Home Pages and utilizing the "Net" has lured everyone from business professionals to home users to investigate its wares. It now boasts 20 million users in the U.S., exponential growth and increasingly innovative new application offerings.

Internet and World Wide Web application development tools and standards simplify networking opportunities. This opens avenues for new business and personal applications. CellPort Labs extends this ever-expanding networking paradigm by combining the power of the Internet and World Wide Web with the flexibility of wireless connectivity, changing the face of mobile networking.

CellPort Labs' MobileWeb™ technology integrates a complete "mobile" Internet/Web server into appropriately equipped vehicles. Running on the CellPort™ Controller/Server, and coupled with its patented Universal Wireless Port technology, MobileWeb opens an unlimited range of bidirectional data networking opportunities and applications, unencumbered or restricted by a single, fixed geographic location.

This vehicular connectivity is unprecedented in its power and potential. It solves the problem of cost-effective, bidirectional wireless data connectivity. As an integrated mobile server it offers complete Internet/Web functionality. Supporting ongoing browser Plug-In innovations such as Java™, MobileWeb embraces the Internet/Web's dynamic environment.

The MobileWeb looks and functions like any other TCP/IP and HTTP-based Internet/Web site. Using standardized applications development tools, it enables unprecedented mobile networking capability by reducing development complexity. Requirements for customized application development are more easily accommodated, lowering economic barriers and opening mobile networking opportunities to businesses and consumers.

ISBN# 0-7803-3277-6

Affordable applications will touch every mobile industry. One-to-one networking or broadcast capability from vehicle to Internet/Web or vice versa can simplify business and operating procedures. Whether providing real-time, ambulance/emergency room connectivity, routing and redirecting delivery services or simply sending vehicle status information, MobileWeb revolutionizes mobile networking.

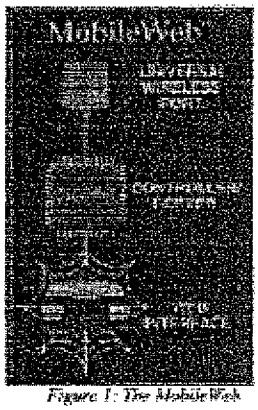


Figure 1: The MobileWeb

Vehicular Data Communications

Many businesses provide some or all of their daily services and transactions from mobile platforms. Incorporating these vehicles into an expanding data networking world previously required extensive custom software application and hardware development. Correspondingly high price tags eliminated all but the largest companies, placing potential applications out of reach for the majority of business and public service organizations.

The World Wide Web has become an applications enabler. Its development tools hide TCP/IP networking complexities, offering simplified communications with HTTP and HTML formatting. This has forged an industry unto itself and will transform the way businesses communicate and transact. Until now, the component missing from this communications revolution was the ability to effectively combine wireless communications with mobile networking.

CellPort Labs, recognizing the need for vehicle-based, mobile data networking, understood the simplicity and precedent-setting significance of the World Wide Web. The company incorporated internal vehicular communications, wireless and data connectivity, and Internet/Web networking, creating MobileWeb technology. The data networking and Internet paradigm is enhanced, enabling a heretofore impossible range of mobile applications.

Web-On-Wheels

Running on the CellPort Controller/Server, MobileWeb functions like any Internet/Web site. Its two-way data networking capability allows the vehicle to respond to Internet/Web data requests, or send data to other Internet/Web sites by executing internal application programs.

For example, remote clients can access the vehicle's "pages" or, equipped with special client applications, download data to the vehicle. Similarly, MobileWeb can run stored or downloaded programs, combining vehicular data with Internet-accessed, environmental or geographic information. These "on-the-fly" applications further extend the intelligent networking opportunities.

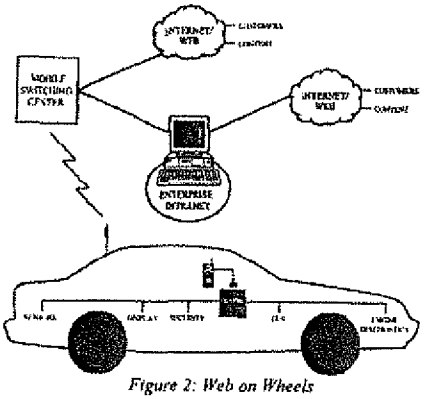


Figure 2: Web on Wheels

The CellPort Controller/Server is an Internet Protocol (IP) addressable node within the Internet's TCP/IP network of networks. Because Internet addresses define physical nodes rather than geographic locations, the server's "mobility" is virtually transparent.

As long as it is connected to the Internet "cloud", MobileWeb can be accessed transparently (like any other Internet/Web server) regardless of location. The MobileWeb server can store and dispense real-time data, varying or correlated, with its geographic location and physical status.

MobileWeb pages contain information gathered from the vehicle's internal data network "vehicular local area network (VLAN)," or from other Internet/Web sites. The VLAN is similar in concept to a LAN except for the fact that it consists of the vehicle's electronic devices instead of personal computers. VLAN devices could include PCs, as well as other vehicular devices such as air bag controllers, door locks, Global Positioning System (GPS) equipment, ignition controls, LCD displays, medical equipment and temperature sensors/equipment.

MobileWeb communicates with embedded vehicular or Plug-In devices through the Controller function of the CellPort Controller/Server, collecting data or sending commands. Although they appear to, remote Web clients cannot access these devices directly. This is accomplished by pages that present device interfaces and intranet with the vehicle devices using CGI-Bin.

Architecture

The CellPort Controller/Server is the heart and brain of MobileWeb. The Controller function is a powerful multitasking processor/micro computer, communicating with inboard vehicle devices connected to the VLAN and a wireless-access network.

MobileWeb is dependent upon - but independent of - specific wireless technology. It requires a wireless connection in order to provide a link to the Internet cloud. But by incorporating CellPort Labs' Universal Wireless Port, it enables any cellular, PCS or wireless handheld device to interface with the vehicle. This universal interfacing capability provides significant cost and application benefits over other available proprietary, non-universal or embedded mobile wireless solutions.

In the Client/Server architecture, the VLAN connects various internal or peripheral electronic devices using a standard automotive LAN protocol. Most manufacturers incorporate internal LANs into new vehicles, but thus far applications and uses have been limited by vehicle-specific control problems.

The CellPort Controller can communicate with these devices in their own language, then translates information to the Internet's standard transmission protocol (HTTP).

As a multitasking processor, the CellPort Controller monitors and communicates with multiple vehicular devices simultaneously. For example, it can monitor the status of electronic devices, at the same time as it accepts wireless data packets from an external Internet site. Users making data requests appear to have transparent access to vehicular devices, but are actually communicating through the CellPort Controller/Server.

CDPD packet data is particularly well-suited to MobileWeb applications. It uses the IP, eliminating the translation gateways and custom software required by other solutions. It is an encrypted, digital-packet-data overlay that talks directly to the Internet through a secure firewall connection. Using CDPD, MobileWeb is capable of a 19.2 Kbps raw-data rate with effective throughput of approximately 10 Kbps.

Wireless communication to the Internet is handled through the Server function of the CellPort Controller/Server. It has a standard twelve-digit IP address and incorporates the complete TCP/IP protocol stack, controlling the sending, receiving and proper routing of Internet data packets. As an addressable Internet node, the server provides the required intelligence and messaging for advanced networking and application opportunities.

The Server stores applications in RAM or ROM, and can incorporate flash memory or PCMCIA storage for dynamic additions or changes. Not requiring disk drives, the Server relies on its processing and memory power to parse application data. But its software architecture places no limits on functionality, offering a complete Internet Web server package.

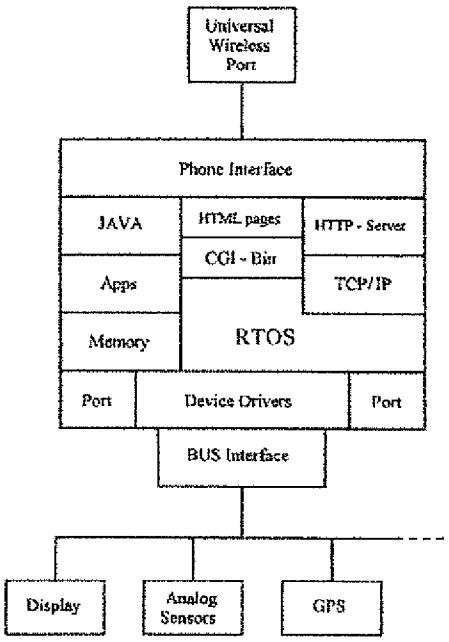


Figure 3: Controller/Server internal architecture

CellPort Server capability includes complete support for ongoing Internet/Web browser Plug-In developments, including Java applets, RealAudio™ and others. Plug-Ins extend Web capabilities to other dimensions by adding interactivity, sound and other features. The wealth of Web developer talent addressing Plug-Ins will keep the Internet/Web a dynamic environment. CellPort's complete Plug-In support extends this evolving capability to the mobile environment.

Applications

Extending World Wide Web connectivity to mobile vehicles expands the concept of an Internet server. It eliminates its tethered connection and opens up a host of new application development.

Vertical applications will dominate near-term development. Using CellPort development kits, businesses can conceptualize, create and implement wireless connectivity solutions in a fraction of the time required for typical customized developments. The range of mobile Internet uses is limited only by application developers' imaginations.

Delivery services become two-way active nodes on a data communications network. Internet-savvy customers can request a service pick-up or monitor delivery status by accessing the Web. Interacting directly with the system provides instant service gratification, eliminating the aggravation of customer service systems.

Within the vehicle, GPS systems can continuously monitor positions, communicate with the CellPort Controller/Server and post or send data through the Web. Dispatchers can monitor vehicle locations and re-route nearby vehicles to incorporate additional pickups and eliminate secondary dispatches.

Other vehicle data tracking examples include: monitoring temperature sensors for damaging deviations in environmental conditions; checking engine or component performance data to anticipate breakdowns/failures; and notifying dock personnel of approaching vehicles for quicker loading or unloading.

One of MobileWeb's compelling application capabilities lies in a vehicle's ability communicate bidirectionally through the Internet to any connected client or server worldwide. By bringing in a MobileWeb-equipped vehicle, oil companies could monitor instruments in remote land or sea locations without having to invest in proprietary systems.

A whole host of telemedicine and emergency-care applications are also possible. Ambulances can connect and send patient data ahead to hospital emergency rooms. Remote specialists and experts can access the same MobileWeb provided pages, resulting in enhanced medical diagnostics. Connecting mobile-care units with stationary-care facilities or other remote locations provides a diagnostic and treatment link not previously possible.

Embedded server applications can analyze data, warn of trouble ahead and provide alternate directions. Vehicle-based interactions can incorporate readily available voice recognition, touch screen displays and text-to-speech technologies, addressing driver interference concerns.

Consumers can also use CellPort Labs' vehicle-based technologies to access a host of horizontal market applications, including restaurant information and reviews, travel or route guidance, automated vehicle maintenance reporting or emergency vehicle dispatch.

Extending the Internet

MobileWeb takes advantage of the Internet/Web's development simplicity, adding additional functionality by enabling mobile server environments. Devices talk to a standard API and therefore require less custom software development, resulting in lower applications costs.

With MobileWeb, incorporating wireless connectivity requires less specialized developer expertise. Working with data services like CDPD, the Server/Controller and Universal Wireless Port keep the connection transparent.

Developers do not need to know or understand protocols for communicating with engine controllers, air bag sensors or GPS devices. The CellPort Controller/Server handles it all. Extensive applications can be written more quickly and cost-effectively.

Customized wireless applications do exist. Many rely on private wireless networking capability and proprietary software developments, which require specialized programming expertise. Depending on the scale of the application, development can cost anywhere from several hundred thousand to millions of dollars in infrastructure and software. These systems require ongoing maintenance, updates and changes, which necessitate additional customized development and added expense.

Because of the cost, vehicle-based wireless data connectivity applications were limited to large organizations, with corresponding budgets. Small users, such as 50-truck delivery fleets, could not cost justify the prohibitive development and ongoing expenses.

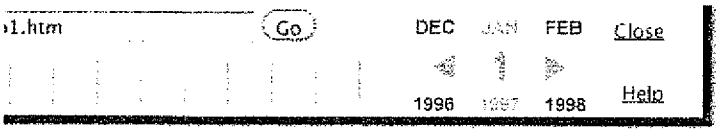
In contrast, the Internet/Web relies on open systems and standards. It uses TCP/IP for data-packet routing and control. HTTP is the transmission protocol describing what to do with messages. HTML handles "page formatting." As an open standard, anyone can develop Internet applications if they incorporate and conform to the published protocols.

Available Internet/Web application development tools incorporate standard Internet protocols. Developers need not worry about TCP/IP connections and data networking. These high-level tools sit "above" the Internet's embedded protocols, reducing much of the application development to simple HTML formatting. By slashing development costs from 30% to 80%, this offers a significant implementation savings.

In contrast to proprietary and embedded single-solution wireless architectures, CellPort Labs' open architectural solution borrows the s successful formula of winning technologies in the '90s. Open systems and standards continually result in the most robust, innovative, flexible and cost-effective solutions.

CellPort Labs MobileWeb enables an unlimited number of mobile-market application opportunities. Its ties to the Internet and World Wide Web lower the economic barriers of mobile connectivity solutions, eliminates the need for complex proprietary developments and makes it available to all.

EXHIBIT 15



MSC-9710 On-Line Brochure

- Introduction
  - Developer's Kit
  - MobileWeb: The Mobile Server/Controller
  - Unlimited Application Potential
  - CellPort's MobileWeb
- Software
  - C/P Connect
  - Core Features
  - Using the Developer's Kit
  - Developer's Kit Requirements
- Hardware
  - Design Concepts
  - Hardware Implementation
  - Developer's Kit Block Diagram
  - Front and Back Panel Illustrations
  - Product Photos
- Purchasing a MSC-9710 and Software Development Kit
- How to obtain a MobileWeb
- Back to the CellPort Labs Homepage

Introduction

Developer's Kit

The CellPort Labs MSC-9710 MobileWeb Developer's Kit is a hardware/software platform designed to facilitate the efficient development of wireless data solutions based upon CellPort Labs' universal wireless connectivity and mobile networking technologies. The Kit provides:

- Hardware development platform
- Software development tools
- Developer's environment

MobileWeb: The Mobile Server/Controller

CellPort Labs' MobileWeb combines universal wireles connectivity with Internet access, creating a universal data interface that turns any vehicle into an untethered "Web site". This allows information to be shared easily between fixed and mobile platforms. From checking local traffic conditions to tracking a fleet of delivery trucks, MobileWeb provides an unlimited range of bi-directional data opportunities and applications utilizing Internet/Web and intranet networks.

This advancement is made possible through a combination of internal vehicular communications; wireless, voice and data connectivity, and Internet/Web networking, all handled by MobileWeb. Utilizing an embedded server/controller based on a

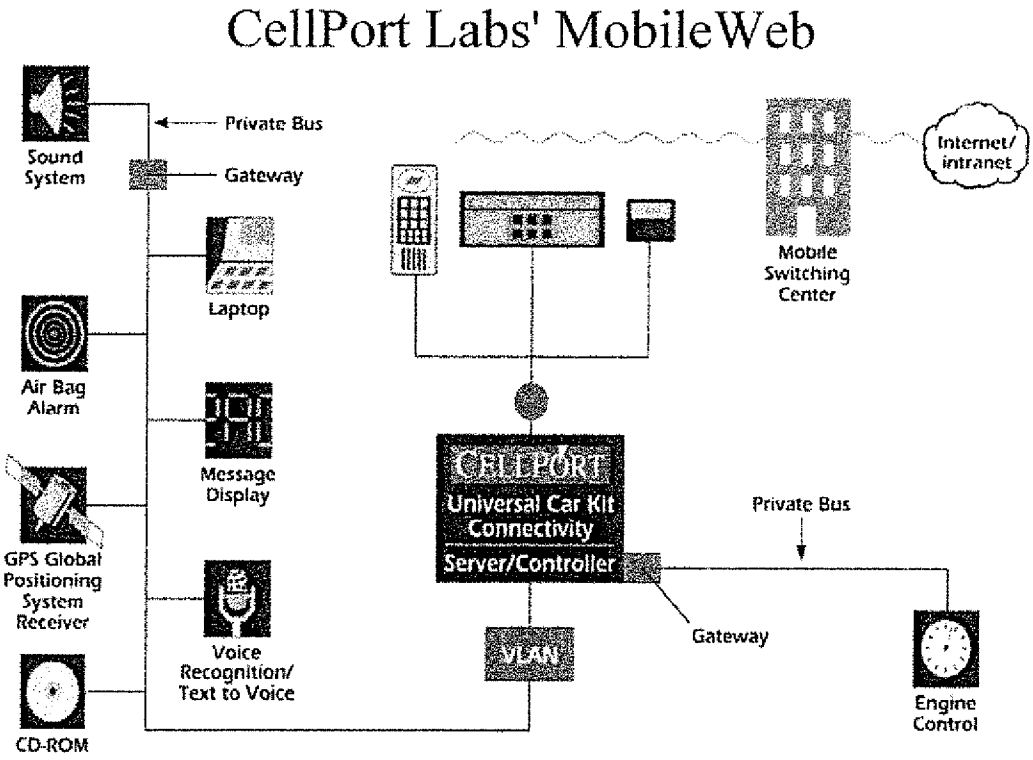
powerful pre-emptive multi-tasking operating system, MobileWeb links cellular, satellite, or PCS phones, independent of brand or airlink standard used, to the vehicle's multiple digital electronic devices. A variety of vehicular local area networks (VLANs) allows for bi-directional data communications between the vehicle and any public or private network.

Most importantly, by using TCP/IP and HTTP protocols, both standard Internet/Web protocols, MobileWeb drastically cuts application development time and costs, and opens a host of new mobile networking opportunities and applications. And since most business and government intranets take advantage of these same protocols, MobileWeb can add capabilities to their existing infrastructures, offering a viable way to enhance intranet functionality and efficiency without requiring large investments in hardware and applications development.

Unlimited Application Potential

Using the developer's kit, organizations can explore MobileWeb's unlimited application potential and create cost-effective prototypes. The kit provides multiple bus and multiple PC card interfaces to enhance development opportunities.

In addition to the many vehicular applications utilizing Internet connectivity and bidirectional data transmission, a wealth of portable applications requiring remote data acquisition and control are also possible, such as environmental monitoring, industrial processes and control, vending machine monitoring and agricultural applications.



- Airlink and Communication Device Independent
- Internet and Intranet Capable
- Bus Neutral
- Embedded or Non-Embedded Device Independent

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Software

C/P Connect

C/P Connect is CellPort Labs' MobileWeb server/controller operating system. C/P Connect contains a set of core software features which come with the system. It can also be extended ot specific applications by programming the system using the CellPort Labs MSC-9710 MobileWeb Developer's Kit. The MSC-9710 is constantly undergoing performance enhancements and improvements.

Core Features

- C/P Connect is a real-time, multi-tasking, embedded operating system.
- For full connectivity to the Internet, a TCP/IP networking stack is provided.
- Supports CDPD cellular phones/modems and other wireless devices in connecting to the Internet. UDP is also available
- Supports the SLIP and PPP link layer services for connectivity to different Internet providers.
- Contains a HTTP 1.0 compatible Web Server including support for HTML FORMS for user input and server side include functions for specialized output processing.
- A FTP server is provided to download/upload new web pages and applications.
- A FTL file system is implemented in Flash memory for easy access to HTML web pages and for extension of the system.
- Supports PCMCIA flash memory cards.
- Different levels of security denies unauthorized access to system configuration and other sensitive pages.
- System management and configuration is accomplished through user-friendly FORMS based web pages.
- System management and configuration can be either accomplished through the Internet or via a directly attached laptop computer.
- A laptop computer can access the Internet via MobileWeb's universal wireless connectivity.
- Updates of the system software can easily be accomplished by uploading the new software and reprogramming the flash memory.

Using the Developer's Kit

The developer's kit is designed to allow easy customization. Developers can easily add new applications which are accessed through the Internet via web browsers. These applications might contain:

- New web pages.
- New server functions to process FORMS and server side include functions.
- New application tasks which monitor devices attached to MobileWeb.
- New device drivers.

In order to facilitate quick development of customer applications, CellPort Labs provides several libraries:

- APIs which help create new web-based applications.
- Common run time C functions (such as sprintf, memcpy, and strcpy).
- Pre-packaged serial device drivers and Controller Area Network device drivers.
- Card and Socket services are provided for development of PCMCIA drivers.

Development of new web pages can be done through one of the many commercially available web development tools, or with an ordinary text editor. Application development uses the commonly avalilable MicroSoft Visual C++ compiler.

Newly developed code is easily uploaded to MobileWeb through a directly connected serial line.

Developer's Kit Requirements

There are three levels of developers for the C/P connect software. Each level requires more technical sophistication and development tools. All levels require the following:

- C/P Connect from CellPort Labs.
- MicroSoft Visual C++ Professional (Version 4 or higher).
- A PC capable of running Windows 95 (a Pentium/100 or better is recommended).
- A web browser (such as Navigatior or Explorer).
- A connection from the development PC to MobileWeb.

The three levels of developers and their specific requirements are:

Web Page Developer
This is the developer who wants to create web pages. This developer needs to be well-versed in HTML, CGI, and URI.
Application Developer
This is the developer who wants to communicate with a locally attached device, and control the device, or display the status of the device, through web pages. The locally attached device is attached via a CellPort Labs supplied driver (serial or CAN). This developer should be a systems programmer comfortable in programming multi-tasking systems in the C programming language. In addition to the tools listed above, this developer would need:

- Debugging version of C/P Connect.
- SoftScope debugger from Concurrent Sciences.
- MASM Assembler from MicroSoft.

Driver Developer
In addition to the applications, this developer wants to interface to a specialized PCMCIA card, CAN or ARCNET device. This developer should be a system programmer comfortable in programming systems in C, as well as in assembly language. In addition, the driver developer should have some background working with hardware devices, and should be familiar with PCMCIA hardware/software structure. The following development tools are helpful(in addition to the Application Developer's tools):

- promICE in-circuit ROM emulator (optional).
- C/P Connect Driver Developers Guide and libraries.

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Hardware

Design Concepts

The CellPort Labs MSC-9710 MobileWeb Developer's Kit is a single-board computer that connects a variety of wireless interfaces to one or more vehicle buses. The MobileWeb server/controller contains a microprocessor, 2 Megabytes of RAM, and up to 8 Megabytes of Flash Memory to implement an in-vehicle server/controller with file system. It has six serial ports and two PCMCIA slots for connection to a wide variety of devices, both vehicular and wireless. There are also native CAN and ARCNET interfaces for device-specific connections. It is powered by unconditioned automobile voltage (10.5V to 16V DC).

Hardware Implementation

The MobileWeb server/controller is based on on Intel 386EX CPU and has the following features:

- 2 Megabytes Dynamic RAM. The interrupt vectors, any variables, and the stack are stored in RAM.
- 512 Kilobytes (512K x 8) FLASH EPROM. This is the Boot FLASH. On Power Up, the processor accesses the reset vector in the top word of this device. This is where the operational code and unique device I.D. are stored. A 32 pin PLCC socket is provided for this device, so that code updates, or an In Circuit ROM Emulator, can be place here.
- 2 Megabytes(1Mx16) of FLASH FILE EPROM. This is one of two Flash File devices. The Flash file is used to store records and applications. Optionally, a 2Mx16 FLASH can be inserted to give 4 Megabytes of Flash File EPROM.
- 2 Megabytes (1Mx16) of FLASH FILE EPROM. This is the other Flash File device. Optionally a 2Mx16 FLASH EPROM can be inserted to give 4 Megabytes of Flash File EPROM.
- Two Type 3 PCMCIA Slots with one socket per slot. The PCMCIA Controller is the Cirrus Logic CPLD6720. One slot is 5V only and the other has intelligence to detect low voltage cards.
- Six RS-232 serial ports, with speeds up to 120K baud. Two of the serial ports are embedded in the 386EX. The other four are implemented with the Texas Instruments TL16C554 Quad UART. The TL16C554 consists of four improved 16C550 UARTs with 16 Byte FIFOs on the receivers. The serial ports are connected to Dsub9 connectors on the back panel. The pinout is as follows:

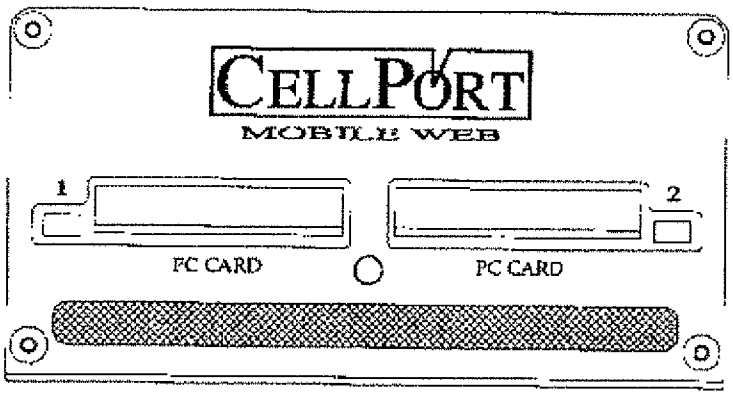
Data Carrier Detect	DCD	input	Pin 1
Receive Data	RXD	input	Pin 2
Trasmit Data	TXD	output	Pin 3
Data Terminal Ready	DTR	output	Pin 4
Ground	GND	--	Pin 5
Request to Send	RTS	output	Pin 7
Clear to Send	CTS	input	Pin 8

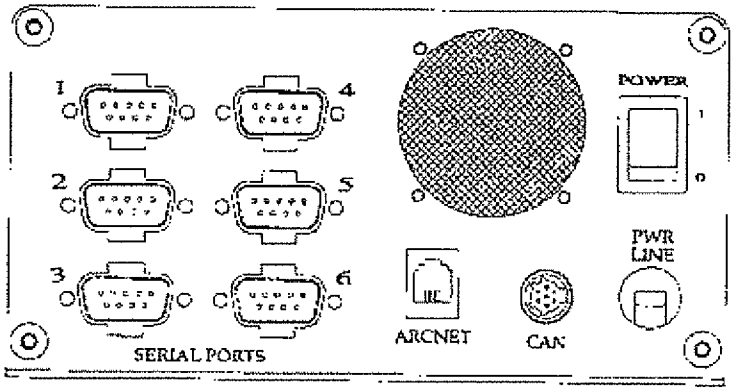
- A battery backed-up Real Time Clock (RTC) with 50 bytes of NVRAM utilizing the Dallas Semicondutor DS1286 RTC. It is interfaced as 64 RAM locations with 14 Bytes of clock and control registers, and 50 Bytes of general purpose Non-Volatile RAM.
- A CAN interface utilizing the Intel 82527 CAN Controller. The 82527 supports the standard and extended message frames in CAN Specification 2.0 Part B.
- An ARCNET interface utilizing the SMC COM20020 Universal Local Area Network Controller. The physical interface is an R5-485 tranceiver on an RJ11 connector.
- User selectable DIP Switch for custom setup.
- A Power On Reset generator and Power Fail interrupt based on the Maxim MAX707. The MAX707 generates an active low RESET-to the 386EX and peripherals when VCC drops below 4.7 Volts, and generates a 200 Msec RESET-on Power Up when VCC rises above 4.6 Volts. It also generates a Non Maskable Interrupt (NMI), when it detect the unregulated DC Power has dropped below 10.5 Volts, to provide an early warning of imminent power failure. The software then suspends all activity until power is restored. The 386EX also contains a Watch-Dog Timer that requires software toggling every 1.2 seconds. If the WDT is not toggled, the processor is Reset.
- A Three Ampere DC-DC switching power supply to convert from 10.6-20 Volts unregulated DC to 5.0 Volts for logic.
- A 300mA DC-DC switching power booster ot onvert from 5.0 Volts to 12V ± 5% for the PCMCIA slots and optionally the Flash Memory.
- The case is 6061 extruded aluminum with a black anodized finish. Its dimensions are:

Length	Width	Depth
6.15"	3.09"	8.0"
156.21mm	78.54mm	203.20mm

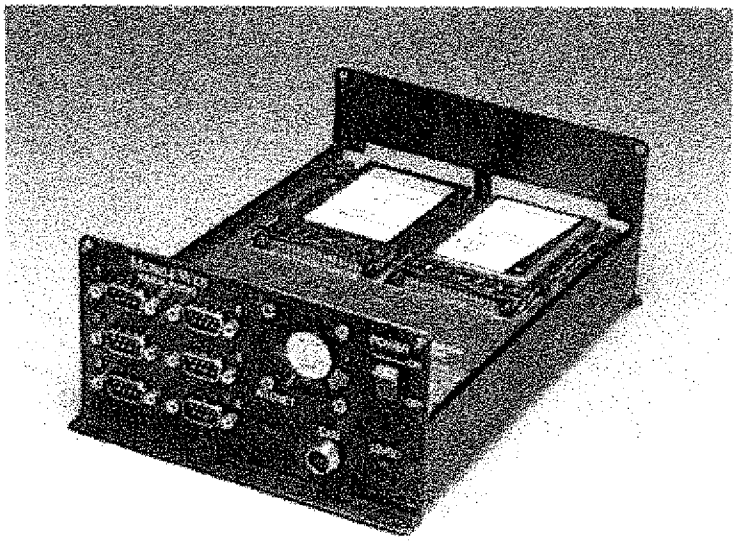
Developer's Kit Block Diagram

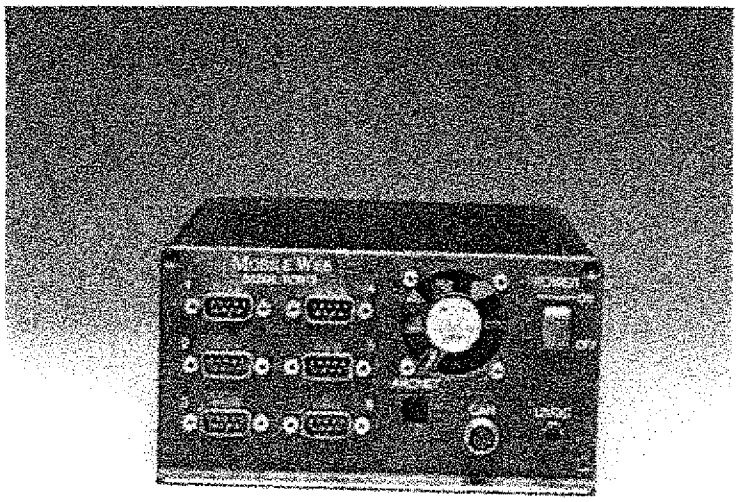
Front And Rear Panel Illustrations





Product Photos





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Purchasing a MSC-9710 and Software Development Kit

Item	Price
MSC-9710	$695.00
SDK	$3000.00

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How to Obtain a MobileWeb

CellPort Labs Contact Information:



CellPort Labs, Inc.
885 Arapahoe Avenue
Boulder, CO 80302
Tel (303)541-0722
Fax (303)541-0731
Email: patk@cellport.com

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Navigator® is a registered trademark of Netscape, Inc.
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EXHIBIT 3

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of **KENNETH E. FLICK**	
Request for Reexamination of **U.S. PATENT NO.8,032,278**	
Control No. **90/013,587**	Attorney Docket No.: C13-03895(0058106CIP1_REX)
Confirmation No. 8867	
Filing Date: SEPTEMBER 14, 2015	Examiner: M. GRAHAM
For: **VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS**	Art Unit: 3993

RULE 132 DECLARATION BY MICHAEL J. SUMAN

I, the undersigned, hereby declare that:

Background

1. I am currently the owner of a consulting company, Product and Market Development L.L.C., located in Caledonia, Michigan. Prior to that, from 1996 until 2002, I was the Group Vice President at Johnson Controls Automotive. And prior to that, from 1979 to 1996, I was at Prince Corporation, and my last position was Vice President of Sales and Marketing.

2. I received a BS degree in Business and Marketing from Ferris State University in 1974.

3. I am a listed inventor on over 50 U.S. patents and I am familiar with the patent process.

4. I have been retained by the Patent Owner to provide technical assistance in the present reexamination of the '278 patent, particularly with respect to assisting with the proper understanding of the teachings of my cited U.S. Patent No. 6,028,537, and to also assist the with the correct understanding of the relevant technology at the time of my '537 patent.

The '278 Patent

5. I have reviewed the '278 patent which is the subject of the present reexamination.

6. I have reviewed the Official Action dated May 6, 2016 for the reexamination of the '278 patent.

7. I understand that the '278 patent includes three independent claims and twenty-two claims total. Representative Claim 1 is directed to a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle. The multi-vehicle compatible tracking unit includes a vehicle position determining device, a wireless communications device, and a multi-vehicle compatible controller for cooperating with the vehicle position determining device and the wireless communications device to send vehicle position information. The multi-vehicle compatible controller communicates over the vehicle data bus with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. A downloading interface is included for permitting downloading of enabling

data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller.

8. I understand that the specification of the '278 patent at column 24, lines 8-12, provides that "[t]he enabling data may be the vehicle device code or codes, an instruction to select a code or codes from among those already stored, or the data or sequence to allow the controller to generate the vehicle device code or codes, for example."

9. I further understand that independent Claim 13 of the '278 patent recites that the downloading interface includes a connector for temporary connection to a downloading device, and that independent Claim 18 recites that the downloading interface includes a wireless receiver for temporary connection to a downloading device.

10. Based upon my study of the '278 patent, and my knowledge of the relevant technology, I understand that the '278 patent is directed to a multi-vehicle compatible tracking unit that may be used to write to and/or read from vehicle devices via the vehicle data communications bus, and do so despite the fact that different vehicles have different device codes.

Teachings of My '537 Patent & Relevant Technology

11. I have reviewed my cited '537 patent and the provisional application No. 60/019,773 filed June 14, 1996, from which my '537 patent claims priority.

12. Section 5 of the Official Action characterizes the teachings of my '537 patent as follows:

> Suman discloses that the controller is coupled to the vehicle data bus for communication with at least one vehicle device, using a corresponding vehicle device code, from among a plurality of codes for different vehicles. As the device uses different vehicle codes for different vehicles it is thus multi-vehicle compatible. The devices include sensors and controls for doors, windows, ignition, speedometer, RPMs, fuel level, turn signals, lights, gears, temperature, oil pressure, defroster, headlights, etc.). See Figs. 3, 5, 44, 45, 47; see also col. 43, lines 27-47. As noted in col. 37, lines 15- 17: "The multiplexing scheme is set forth in SAE standard J1850 and is universally used in the automotive industry." It is also inherent that the J1850 bus described in the Suman '537 patent is included in a variety of different makes and models of vehicles per the federally mandated standard.

Based upon my knowledge and experience, I respectfully disagree with these contentions with respect to the characterization of a multi-vehicle compatible controller. The embodiments contemplated by me at the time of my '537 patent, the disclosure in my '537 patent, and the related commercial developments within my work responsibilities were not directed to a multi-vehicle compatible controller and downloading interface as in the '278 patent claims. The embodiments contemplated by me at the time of my '537 patent did not include multi-vehicle compatibility, and at the time I left Johnson Controls in 2002 I had never contemplated or worked with any multi-vehicle compatible controller as described in the '278 patent. I point out that at the time of my '537 patent, the vehicle device codes were proprietary to different manufacturers, and even different

model lines offered by manufacturers. Moreover, the device codes were not made freely available, and were quite difficult to obtain.

13. The Official Action also cited to my '537 patent in col. 36, lines 31-52, as follows:

> To achieve these aspects and other advantages, the vehicle accessory control system of the present invention includes a plurality of electrically-operated vehicle accessories, a receiver to be mounted in a vehicle for receiving RF signals from a land-based transmitter, and a control circuit coupled to the receiver and to the vehicle accessories for controlling the operation of the vehicle accessories in accordance with a control program. The RF signals include an address uniquely identifying the vehicle and a reprogramming signal for reprogramming the operation of at least one of the vehicle accessories. The control circuit includes an input interface for receiving information regarding a plurality of sensed conditions, control means for controlling the operation of the vehicle accessories in accordance with the control program and in response to sensed conditions received from the input interface. The control circuit further includes reprogramming means for selectively reprogramming the control program in response to the detection of an RF signal including an address identifying the vehicle and the reprogramming signal, to selectively change the manner in which the control means controls the operation of at least one of the vehicle accessories.

Based upon my knowledge and experience, the reprogramming means is not related to vehicle codes or to providing a downloading interface for permitting downloading of enabling data related to

the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller, as in the '278 patent claims. Instead, the reprogramming means is for vehicle personalization and was not capable of making communications level changes that would be necessary to provide multi-vehicle compatibility.

14. I would also like to clarify that the following passage from my '537 patent does not support the contention that my patent discloses a multi-vehicle compatible controller and downloading interface as in the '278 patent claims:

> Yet another aspect of the present invention is to provide a vehicle locating system that allows the vehicle owner to determine the location of the vehicle when the vehicle has been loaned to a friend or family member. In this regard, the present invention may also be used by the manager of a fleet of commercial vehicles, such as taxis, police cars, trucks, or other delivery vehicles, to track the location of each vehicle in the fleet. (Col. 2, lines 3-10).

It was expected that the vehicles in a given fleet would be the same type vehicle having the same device codes.

15. I have also carefully considered the contentions in the Official Action, that my '537 patent discloses: a downloading interface in the form of a connector for temporary connection to a downloading device (as relates to Claim 13 of the '278 patent); and a downloading interface in the form of a wireless receiver for temporary connection to a downloading device (as relates to Claim 18 of the '278 patent). In particular, the Official Action provides that the cellular phone could be connected through the vehicle bus, or a wired RS-232

serial connection of the controller, and thus the RS-232 connector provides an additional wired connection. It is my position, based upon my knowledge and experience, that none of the cited portions of my '537 patent supply these teachings relating to a wired or wireless interface. Indeed, I was simply not working on the problem of multi-vehicle compatibility, and there was no project to develop any software to give the connector the functions as contended in the Official Action. Moreover, the embodiments conceived and described in the '537 patent were not capable of modifying the communications level to allow for multi-vehicle compatibility. Along these lines, there is also no disclosure in my '537 patent of using the telephone to provide a wireless interface as in the '278 patent.

16. I hereby declare further that all statements made herein are of our own knowledge and are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful and false statements may jeopardize the validity of the application or any patent issued thereon.



Michael J. Suman

July 5, 2016

Date

EXHIBIT 4

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of **KENNETH E. FLICK**	
Request for Reexamination of **U.S. PATENT NO.8,032,278**	
Control No. **90/013,851**	Attorney Docket No.: C13-03895(0058106CIP1_REX2)
Confirmation No. 8717	
Filing Date: OCTOBER 28, 2016	Examiner: K. Reichle
For: **VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS**	Art Unit: 3992

RULE 132 DECLARATION BY MICHAEL J. SUMAN

I, the undersigned, hereby declare that:

Background

1. I am currently the owner of a consulting company, Product and Market Development L.L.C., located in Caledonia, Michigan. Prior to that, from 1996 until 2002, I was the Group Vice President at Johnson Controls Automotive. And prior to that, from 1979 to 1996, I was at Prince Corporation, and my last position was Vice President of Sales and Marketing.

2. I received a BS degree in Business and Marketing from Ferris State University in 1974.

3. I am a listed inventor on over 54 U.S. patents and I am familiar with the patent process.

4. I have been previously retained by the Patent Owner to provide technical assistance in the first reexamination of the '278 patent (90/013,587), particularly with respect to assisting with the proper understanding of the teachings of my cited U.S. Patent No. 6,028,537 with respect to the claims as interpreted by the PTO, and to also assist the with the correct understanding of the relevant technology at the time of my '537 patent.

5. I understand that the first reexamination resulted in a confirmation of the patentability of all of the claims based, at least in part, upon my earlier Declaration.

6. I have now been retained by the Patent Owner to provide further technical assistance in the present reexamination of the '278 patent (90/013,851).

The '278 Patent

7. I have reviewed the '278 patent which is the subject of the present reexamination.

8. I have reviewed the Official Action dated July 19, 2017 for the present reexamination of the '278 patent.

9. I understand that the '278 patent includes three independent claims and twenty-two claims total. Representative Claim 1 is directed to a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle. The multi-vehicle compatible tracking unit

includes a vehicle position determining device, a wireless communications device, and a multi-vehicle compatible controller for cooperating with the vehicle position determining device and the wireless communications device to send vehicle position information. The multi-vehicle compatible controller communicates over the vehicle data bus with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. A downloading interface is included for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller.

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12. Based upon my study of the '278 patent, and my knowledge of the relevant technology, I understand that the '278

patent is directed to a multi-vehicle compatible tracking unit that may be used to write to and/or read from vehicle devices via the vehicle data communications bus, and do so despite the fact that different vehicles have different device codes.

13. I understand that the Examiner interpreted the claim elements of the "multi-vehicle compatible controller" and "downloading interface" on pages 22-23 and 27-28, respectively, of the Office Action. The corresponding structure for the multi-vehicle compatible controller is described on pages 22-23 of the Office Action as:

> a controller including CPU, operating under stored program control, or other logic circuit, a memory, a clock and input/output circuitry for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information and for coupling to a vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles.

The corresponding structure for the downloading interface is defined by the Examiner on pages 27-28 of the Office Action as:

> a downloading interface (Figure 10, 116), e.g. interface circuitry 132 (e.g. logic circuitry or other control circuitry along with switching components) for controlling communication with a downloading device, and either a wireless signal downloading interface (e.g. a wireless receiver 114, such as for temporary connection to the downloading device 115 via any one or more of a number of wireless technologies, such as cellular, satellite, IR, Bluetooth or WiFi technologies

(Fig. 11) or a temporary wireless communication link with the downloading device provided by sharing the wireless communications device that sends position data (Fig. 12)) or a wired signal downloading interface (e.g. a connector 133a in the form of a socket to accept a memory card or other data storage medium capable of transferring data or a connector 133a for temporary connection to a mating connector 133b of the downloading device (Fig. 13) wherein the downloading device can be, e.g., a laptop computer, via RS232/429 protocol, USB, Fire Wire, TCP/IP (Internet), or any other wired protocol.) [] The corresponding structure [] is therefore such a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code, e.g. vehicle device code or codes, an instruction to select a code or codes from among those already stored, or the data or sequence to allow the controller to generate the vehicle device code or codes, for use by said multi-vehicle compatible controller [].

The Teachings of Chou et al.

14. I have reviewed the Chou et al. patent. With reference to FIG. 1, the Chou et al. system includes a vehicle 10 having an in-vehicle computing system 100, and a client computer device 101 to enable vehicle health checkup and remote diagnostics. A communication link 150 is for communicating vehicle information (e.g., vehicle identification number, (VIN), diagnostic data, and the like). The vehicle location is established, for example, by a device 317 (e.g., antenna or the like) for receiving positioning information. A remote service center 200 is also provided having a diagnostic server 201, a help desk 202 and a data repository 203. The help

desk 202 schedules services, orders parts, and dispatches assistance through the roadside assistance unit 175. The remote service center 200 (FIG. 3) comprises a diagnostic server 201 that has access to data related to the vehicle such as as-built, history, diagnostics, warranty, service information and failure mode data. The diagnosis server 201 is linked to the data repository 203.

15. Chou et al. discloses a remote diagnostic system including a data bus interface, a GPS module, an RF transceiver, and a processor at the vehicle that communicates with a remote service center. My '537 patent, used as an anticipation reference and overcome in the first reexamination, and now used in an obviousness rejection of Claims 9-10, 17 and 22, includes the same components as in Chou et al. (see FIGS. 1a and 5, and col. 15, lines 52-63 in my '537 patent, for example). In other words, I believe that Chou et al. is the same as my '537 patent, and includes the same deficiencies with respect to the claims of the '278 patent as my '537 patent.

16. As stated in my declaration in the first reexamination, the embodiments contemplated by me at the time of my '537 patent, the disclosure in my '537 patent, and the related commercial developments within my work responsibilities were not directed to a multi-vehicle compatible controller and downloading interface as in the '278 patent claims consistent with my understanding of these terms based upon the Examiner's interpretation as explained above. The embodiments contemplated by me at the time of my '537 patent did not include multi-

vehicle compatibility, and at the time I left Johnson Controls in 2002 I had never contemplated or worked with any multi-vehicle compatible controller as described in the '278 patent. I point out that at the time of my '537 patent, the vehicle device codes were proprietary to different manufacturers, and even different model lines offered by manufacturers. Moreover, the device codes were not made freely available, and were quite difficult to obtain.

17. The Examiner, on pages 35-36, contended that "Chou either implicitly discloses or obviously suggests a 'multi-vehicle compatible controller' and such controller is coupled to a vehicle data bus, e.g. 335, 104, for communication thereover, e.g. via 330, 120, with at least one vehicle device, e.g. 103, using at least one corresponding vehicle device code, i.e. (DTC), vehicle fault codes/protocols, which is vehicle model dependent, i.e. from among a plurality thereof for 'different vehicles'".

18. The Examiner, on page 36, contended that Chou et al. discloses the claimed downloading interface as:

> interface circuitry, e.g. NETWORK INTERFACE, 320, 107, docking facility, and a temporary wireless communication link, e.g. arrow 7, 14, arrow 3, 9, with the downloading device, i.e. TCP/IP(an internet/the Internet), 201, provided by sharing the wireless communications device, e.g. 102, that sends position data, see, e.g. col. 7, lines 32-40, (see also discussion of claims 2-5) and such structure permits downloading of enabling data, e.g. instruction to gather data, vehicle parameter update/change, related to the at least one corresponding vehicle device code for use by said

multi-vehicle compatible controller, e.g. steps 2-6 in Figure 5.

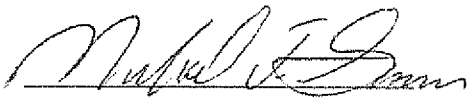
19. The lack of vehicle code compatibility among different vehicles for vehicle tracking units is the problem addressed by the claimed invention of the '278 patent. The inventor, Mr. Flick, recognized that having many different model vehicle tracking units for many different vehicles presented significant inventory control and product development challenges, particularly in the aftermarket vehicle tracking unit area.

20. Based upon my knowledge, experience and analysis, I believe that Chou et al. fails to disclose or obviously suggest the claimed multi-vehicle compatible controller and downloading interface in the vehicle tracking unit. Chou et al. discloses that data from the ECUs on the vehicle bus is merely passed from the in-vehicle system to the remote service center of Chou et al. In the reverse direction, data is passed to the in-vehicle system in Chou et al. There is no discussion in Chou et al. of downloading enabling data related to at least device code for use by the multi-vehicle controller in the vehicle.

21. I hereby declare further that all statements made herein are of our own knowledge and are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful and

_____/

false statements may jeopardize the validity of the application or any patent issued thereon.



Michael J. Suman

9-18-2017

Date

EXHIBIT 5

UNITED STATES DISTRICT COURT

MIDDLE DISTRICT OF FLORIDA

ORLANDO DIVISION

OMEGA PATENTS, LLC,
Plaintiff,
v.
CALAMP CORP.,
Defendant.

Case Number 6:13-CV-1950

TUESDAY, FEBRUARY 16, 2016, 9:42 A.M.
CIVIL JURY TRIAL - VOLUME I (DAY 1)
BEFORE THE HONORABLE PAUL G. BYRON, AND A JURY
UNITED STATES DISTRICT JUDGE
ORLANDO, FLORIDA

COUNSEL FOR PLAINTIFF:
Brian Gilchrist, Esq.
Ryan Santurri, Esq.

COUNSEL FOR DEFENDANT:
Joel Kauth, Esq.
Eugene Chong, Esq.
Carrie Wozniak, Esq.
Charles Halloran, Esq.

*Proceedings recorded by mechanical stenography
Transcript produced by computer transcription*

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Opening statement by defendant...46

P R O C E E D I N G S

*****

[Jury selected and sworn.]

{Lunch recess from 1:15 p.m. to 2:25 p.m.}

MR. GILCHRIST: Judge, before we get the jury in -- and, Joel, jump in, if you want -- between the parties, we've agreed to try and streamline the case. So for the Court's edification, we are no longer pursuing the '989 patent --

THE COURT: Okay.

MR. GILCHRIST: And two claims on the '727 patent. So if you wondered why any of those weren't coming up in opening, that's why.

THE COURT: That's fine. Let me just strike that out of the preliminary instructions, since I think there is a reference to the patents in dispute.

All right, I think you already took care of that in the proposed preliminary instructions. I don't see '989 in there.

MR. GILCHRIST: Yes, sir, I think we did. I just wanted to make sure the Court understood it in case we slipped up somewhere.

THE COURT: All right. Thank you.

All right. Are you ready for the jury?

MR. KAUTH: Yes, Your Honor.

THE COURT: All set. Do you want to have them come in, please?

COURT SECURITY OFFICER: Yes, Your Honor.

{Jury present.}

THE COURT: The record should reflect the jury is present. The parties are present, as well as their attorneys. Ladies and gentlemen, I hope you enjoyed your lunch. Thank you for being back right on time.

At this stage of the proceedings, it's my obligation to read some preliminary instructions to you to help you understand how this case will proceed and to give you some preliminary guidance on the duties you will be performing. After I'm done reading these instructions, you will see a short video presentation regarding the United States Patent and Trademark Office after which you will hear an opening statement from the parties, and then we'll conclude for the day, so please bear with me.

Members of the jury, now that you have been sworn, I need to explain some basic principles about a civil trial and your duty as jurors. These are preliminary instructions, and I will give you more detailed instructions at the end of the trial.

First, let me re-introduce myself to you. I am Paul Byron. I'm a United States district judge, and

I will preside over this case. My courtroom deputy is Nancy, who you see seated in front of me. And she is responsible for maintaining the exhibits and the general conduct of the courtroom throughout these proceedings. Next to Nancy is our court reporter, Koretta, who will take down everything that is being said and create a verbatim record.

You've already met our court security officer, and he will provide security for the courtroom and will attend to your needs during your jury service. Let the court security officer know if you have any questions regarding your accommodations or any needs during any of the breaks. He will either take care of that situation or bring it to my attention, as necessary.

Seated to my right is my law clerk. Robin, if you would please stand. Ms. Nauman is a law clerk, and she assists me with all aspects of the trial. I say this at every trial, and I know Ms. Nauman is probably tired of me doing it, but one of the great privileges of being a United States district judge is having the benefit of the service of law clerks who typically stay with me two to three years. They're always, quite frankly, the best and brightest young lawyers in the country. They serve with me for a period of time, then they go on to other things.

Now, ladies and gentlemen, personal items can be left in the jury room. It will be locked at all times while you're in court. As you've been told before, there's a refrigerator, microwave, coffee maker and water dispenser for your use. There are also rest room facilities in the jury room.

Let's turn now to your preliminary instructions. Ladies and gentlemen, it is your duty to listen to the evidence, decide what happened and apply the law to the facts. It is my job to provide you with the law that you must apply and you must follow that law, even if you disagree with it.

Now, what is evidence? You must decide the case on only the evidence presented in the courtroom. Evidence comes in many forms. It can be testimony about what someone saw, what they heard or what they smelled. It could be an exhibit or a photograph, and it could be someone's opinion. Some evidence may be proved indirectly.

Let's say, for example, a witness saw wet grass outside and people walking into the courthouse carrying wet umbrellas. This may be indirect evidence that it rained, even though the witness did not personally observe it raining. Indirect evidence of this type is also called circumstantial evidence, which

is simply a chain of circumstances that likely proves a fact.

As far as the law is concerned, it makes no difference whether evidence is direct or indirect. You may choose to believe or disbelieve either kind. It is your job to give each piece of evidence whatever weight you think it deserves.

Now, let me cover what is not evidence. During the trial, you will hear certain things that are not evidence and you must not consider them.

First, the lawyers' statements and arguments are not evidence. In their opening statements and closing arguments, the lawyers will discuss the case. Their remarks may help you follow each side's arguments and the presentation of evidence, but the remarks themselves are not evidence and should not play a role in your deliberations.

Secondly, the lawyers' questions and objections are not evidence. Only the witness's answer to a question is evidence. So please do not decide that something is true just because a lawyer's question suggests that it is.

Let me give you an example. A lawyer may ask a witness, "You saw Mr. Jones bit his sister, didn't you?" That question is not evidence of what the witness

saw or what Mr. Jones did unless the witness agrees with the question.

There are also rules of evidence that control what the Court can receive into evidence. When a lawyer asks a question of a witness or presents an exhibit, the opposing lawyer may object if he or she thinks the rules of evidence do not permit that question or that piece of evidence.

If I overrule the objection, then the witness may answer the question or the Court may receive the particular piece of evidence, that is, the exhibit.

If I sustain the objection, then the witness cannot answer the question, and I may not receive the piece of evidence that's been offered. When I sustain an objection to a question, you must ignore the question and not guess at what the answer might have been had I allowed the question to be put to the witness.

In addition, sometimes I may disallow evidence, which is also called striking the evidence, and order you to disregard or ignore that piece of evidence. If I tell you at some point in the trial I have struck a piece of evidence, you must not consider that evidence when you are deciding the case. You have to set that aside.

/////

I also may allow some evidence for a limited purpose. When I instruct you that I have admitted an item of evidence for a limited purpose, you must consider it only for that limited matter and for no other purpose.

Let's discuss the credibility of the witnesses. To reach a verdict, you may have to decide which witnesses to believe and which testimony not believe. You may believe everything a witness says, part of it, or none of it.

When considering a witness's testimony, you may take into account the following: The witness's opportunity and ability to see, hear, or know the things the witness is testifying about, the witness's memory, the witness's manner while testifying, any interest the witness has in the outcome of the case, any bias or prejudice the witness may have, and any other evidence that contradicts the witness's testimony.

You may also consider the reasonableness of the witness's testimony in light of all the evidence presented and any other factors affecting believability. At the end of the trial, I will give you additional instructions for determining a witness's credibility.

Let's turn now to your conduct as members of the jury. While serving on the jury, you may not talk

with anyone about anything related to the case. You may, however, tell people that you're a juror and give them information about when you must be in court, but you must not discuss anything about the case itself with anyone.

You shouldn't even talk about the case with each other until you begin your deliberations. You want to make sure that you've heard everything, that is, all the evidence, the lawyers' closing arguments, and my instruction on the law before you begin deliberating or discussing this case.

Furthermore, you should keep an open mind until the end of the trial. And this is simply because premature discussions may lead to a premature decision.

Also, ladies and gentlemen, in this age of technology, I'd like to emphasize that in addition to not talking face to face with anyone about the case, you must not communicate with anyone about the case by any other means. This includes e-mails or text message, the Internet, or social networking websites, such as Facebook, Twitter, and the like.

You also should not consult Google or search online or offline for any information about the case, the parties, or the law. Please do not read or listen to any news about the case in the event of news

coverage. And certainly, please do not visit any places related to this case or research any facts or issues or legal principles regarding the case.

The law forbids the jurors to talk with anyone else about the case and forbids anyone else to talk with you about it. And it's very important to me that you understand why these rules exist. You must base your decision only on the testimony and other evidence presented in the courtroom. It is not fair to the parties if you base your decision in any way on information you acquire outside of the courtroom.

And, for example, the law often uses words and phrases in a special way. So it's important that any definitions you receive come from me and not from any other source. Only you as jurors can decide a verdict in this case. The law sees you as fair. And only you have promised to be fair. No one else is so qualified, which is why you should not discuss the case with anyone else.

The evidence presented during the course of the trial will be primarily through the testimony of witnesses and the presentation of tangible items, including papers and documents, which are commonly called exhibits.

You will see that the court reporter is taking

down a transcript of these proceedings, and she will continue to do that, but the transcript will not be available for you to take back to the jury room for deliberations to assess what the witnesses have said.

You will be required to rely on your memory, so I ask that you listen carefully and closely to what has been said by the various witnesses.

Let's discuss note-taking. You all have pads. If you wish, you may take notes to help you remember what the witnesses have said. However, if you do take notes, please do not share them with anyone else until you go to the jury room to decide the case. And do not let note-taking distract you from carefully listening to and observing the witnesses. When you leave the courtroom, you should leave your notes in your chairs, and we will collect them and safeguard them for you until the next day.

Now, whether or not you take notes, you should rely on your own memory of the testimony of each witness. Your notes are there only to help your memory, and they're not entitled to greater weight than your memory or your impression about the testimony.

Let me turn now to some preliminary instructions regarding United States patents. As we've discussed before, this is a patent case. The patents

involved in this case relate to two types of technology. The two technologies at issue in this dispute involve control systems for vehicles with a data communications bus, which is a wired connection for communications among vehicle devices within an automobile, as well as the use of vehicle tracking devices to monitor particular vehicle characteristics and conditions. During the trial, the parties will offer testimony to familiarize you with this technology.

Omega, which is the plaintiff in this case, is the owner of several patents, which are identified by certain Patent Office numbers. They are as follows:

Patent number 6,346,876-B1, which may be called the '876 patent; patent number 6,756,885-B1, which may be called the '885 patent; patent number 7,671,727-B2, which may be called the '727 patent; and patent number 8,032,278-B2, which may be called the '278 patent. These patents may also, from time to time, be referred to as the Omega patents.

CalAmp is the other party here. They are the defendant in this case.

Patents are granted by the United States Patent and Trademark Office, sometimes called the PTO and sometimes called the U.S. PTO. A patent gives the owner the right to exclude others from making, using,

offering to sell, or selling the patented invention within the United States or importing it into the United States.

During the trial, the parties may offer testimony to familiarize you with how one obtains a patent from the PTO. But I will also give you a general background regarding that process now.

To obtain a patent, an application for a patent must be filed with the PTO. The application includes a specification, which should have a written description of the invention and telling how it works and how to make and use it so as to enable others skilled in the art to do so.

The specification concludes with one or more numbered sentences or paragraphs. These are called the claims of the patent. The purpose of the claims is to particularly point out what the applicant regards as the invention and to define the scope of the patent owner's exclusive rights.

After an application for a patent is filed with the PTO, the application is reviewed by trained PTO patent examiners. The patent examiner reviews or examines the patent application to determine whether the claims are patentable and whether the specifications adequately describe the invention claimed.

In examining a patent application, the patent examiner searches records available to the PTO for what is referred to as prior art. And he or she also reviews prior art submitted by the applicant. When the parties are done presenting evidence, I will give you more specific instructions as to what constitutes prior art in this case.

Generally, however, prior art is previously existing technical information and knowledge against which the patent examiner determines whether or not the claims in the application are patentable. The patent examiner considers, among other things, whether each claim defines an invention that is new, useful, and not obvious in view of this prior art.

Following the prior art search and examination of the application, the patent examiner advises the applicant in writing what the patent examiner has found and whether any claim is patentable. In other words, whether the claim is allowed. This writing from the patent examiner is called an office action.

More often than not, the initial office action by the patent examiner rejects the claims. The applicant then responds to the office action and sometimes changes the claims or submits new claims.

This process may go back and forth between the

patent examiner and the applicant for several months or even years until the patent examiner is satisfied that the application and claims are patentable.

At that time, the PTO issues or grants a patent with the allowed claims. The collection of papers generated by the patent examiner and the applicant during this time of corresponding back and forth is known as the prosecution history. You may also hear the prosecution history referred to as the file history or the file wrapper.

In this case, it is ultimately for you to decide, based on my instructions to you, whether the accused infringer has shown that patent claims are invalid.

Let's talk now about patent litigation. Someone is said to be infringing a claim of a patent when they, without permission from the patent owner, import, make, use, offer to sell or sell the patented invention as described by the claims within the United States before the term of the patent expires.

The patent owner who believes someone is infringing the exclusive rights of a patent may bring a lawsuit, like this one, to attempt to address the alleged infringing acts and to recover damages, which generally means money paid by the infringer to the

patent owner to compensate them for harm caused by the infringement.

The patent owner must prove infringement of the claims of the patent. The patent owner must prove the amount of damages he or she is entitled to.

A patent is presumed to be valid. In other words, it is presumed to have been properly granted. But the presumption of validity can be overcome if clear and convincing evidence is presented that proves the patent is invalid.

One example of a way in which the presumption may be overcome is if the PTO has not considered, for whatever reason, invalidating prior art that is presented to you. Someone accused of infringing a patent may deny that they have infringed and/or have proved that the asserted claims in the patent are invalid. If the opposing party challenges the validity of the patent you must decide, based on the instructions I will give you, whether the challenger has overcome the presumption of validity with proof that asserted claims of the patent are invalid.

The party challenging validity must prove invalidity by clear and convincing evidence. I will discuss more on this topic later. I will now briefly explain the parties' basic contentions in more detail.

Omega contends that CalAmp makes, uses, offers to sell or sells products and practices methods that infringe 37 claims of Omega's patents. Omega must prove that CalAmp infringes Omega's patents by a preponderance of the evidence. That means Omega must show that it is more likely than not that CalAmp's five products identified by the product numbers: LMU-3000, LMU-3030, LMU-3050, VPOD, that's V-P-O-D, and VPOD2 infringe.

To determine infringement, you must compare the accused products with each claim from each patent that Omega asserts are infringed. It will be my job to tell you what language of the patented claims mean. You must follow my instructions as to the meaning of the patent claims. You are not to define any patent claims for yourselves.

A patent claim is literally infringed only if CalAmp's products include each and every element or perform each and every method step in that patent claim. If CalAmp's products do not contain one or more elements or perform one or more method steps in that claim, CalAmp does not literally infringe that claim. You must determine literal infringement with respect to each patent claim individually.

CalAmp denies that it is infringing Omega's patents. CalAmp also contends that Omega's patents are

invalid. CalAmp contends that each of the claims is invalid in light of prior art and it expects to -- prior art that it expects to offer at trial.

Specifically, CalAmp contends that Omega's patents are invalid as being anticipated and/or as being obvious in view of the prior art.

Invalidity of the asserted patent claims is a defense to infringement. Therefore, even though the PTO examiner has allowed the claims of Omega's patents, you, the jury, have the ultimate responsibility for determining whether the claims of Omega's patents are valid. In other words, whether the claims were properly allowed by the PTO.

CalAmp must prove the facts underlying its invalidity arguments by clear and convincing evidence in order to overcome this presumption of validity.

Clear and convincing evidence means that it is highly probable that the fact is true. This standard is different than the standard that applies to other issues in the case. I have instructed you that other issues, such as infringement, may be found under a lower standard, namely by a preponderance of the evidence.

You may think a preponderance of the evidence is slightly greater than fifty percent. This is different than a criminal case where the law provides

for a standard of beyond a reasonable doubt.

You may think of this beyond a reasonable doubt standard as approaching certainty without reasonable doubt. The clear and convincing standard is somewhere between the two, between preponderance and beyond a reasonable doubt.

Let's talk about the trial and how it will proceed. We're about to commence with opening statements in the case. Before we do that, I want to explain the procedures that will be followed during the trial and the format of this trial.

This trial, like all jury trials, comes in several phases. We have completed the first phase, which is to select you as jurors. We're about to begin the second phase, the opening statements. The opening statements are the lawyer's statements about what each side expects the evidence to show. The opening statements are not evidence for you to consider in your deliberations. You must make your decision based on the evidence and not the lawyer's statements or arguments.

The third phase of the case is where evidence will be presented to you. Witnesses will take the stand and documents will be offered and admitted into evidence.

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Omega, as the plaintiff, goes first in calling its witnesses to the witness stand. These witnesses will be questioned by Omega's counsel in what is called direct examination. After the direct examination of a witness is completed, the opposing counsel has the opportunity to cross examine that witness.

After Omega has presented all of its witnesses, CalAmp will call its witnesses, who will also be examined and cross examined. After CalAmp has presented its witnesses, Omega may call additional witnesses.

The parties may present the testimony of a witness by having the individual testify live for you, by reading their deposition from a transcript, or by playing a videotape of the witness's deposition testimony. All three are acceptable forms of testimony. A deposition is the sworn testimony of a witness taken before trial and is entitled to the same consideration as if the witness had testified at trial live.

The evidence often is introduced piecemeal, meaning that all of the evidence relating to an issue may not be presented all at one time, but may be presented at different times during the trial.

As a result, you will need to keep an open mind as the evidence comes in. You are to wait until

all the evidence comes in before you make any decisions. In other words, keep an open mind throughout the entire trial.

In the fourth phase of the trial, the lawyers will again have an opportunity to speak with you in what's called closing argument. As with opening statements, what lawyers say in closing argument is not evidence for you to consider in your deliberations.

Now, next we turn to the fifth stage of the proceedings, which will be when I will read to you the final jury instructions. At that time, I will instruct you on the law that you must apply in this case. I have already explained a little bit about the law to you. And in the fifth phase, I will explain the law to you in greater detail.

And then, finally, in the sixth and final phase in this case, you will deliberate and reach a verdict. You will evaluate the evidence, discuss the evidence among yourselves and make a decision in this case.

Now, we both have a job to do. You will decide the facts, and I will apply the law. I will explain the rules of law that apply to this case, and I will also explain the meaning of the patent claim language to you. You must follow my explanation of the

law and the patent claim language, even if you do not agree with it.

Finally, please keep in mind that nothing I say or do during the course of the trial is intended to indicate what your verdict should be on any fact which you must decide.

Ladies and gentlemen, with that, what we will do now is we will play for you a presentation from the United States Patent and Trademark Office, after which we will hear opening statements from the attorneys.

Counsel, when you're ready.

[Videotape presentation.]

THE COURT: All right. Thank you very much.

We're now ready to hear opening statements.

Who will be speaking on behalf of the plaintiff?

MR. GILCHRIST: I will, Your Honor, Brian Gilchrist.

THE COURT: When you're ready, sir.

You may proceed.

MR. GILCHRIST: My name is Brian Gilchrist. I'm an attorney with the law firm of Allen, Dyer, Doppelt, Milbrath & Gilchrist. And I have the privilege of representing Omega Patents, LLC. It's a company based out of Georgia that owns and controls over 150

different patents. Its owner is Mr. Ken Flick, the inventor of those 100 -- over 150 patents.

The patents we're going to talk about for the next few days are relating to what you've heard, data bus. And you've heard on the video that it's normally an inventive process, a conception, an idea that comes to somebody. And for today's purposes and this week's purposes, it all centers around, of all things, a Jeep Cherokee.

Mr. Flick was in the auto alarm business and ran across a Jeep Cherokee that controlled door locks, though it was different than what he had been used to. Normally, they're controlled by hard wires that run directly through an actuator that lock and unlock a door. This was a computer cable that didn't have the normal things that he was used to seeing.

Mr. Flick, at that time, based upon his lifetime experience, knew immediately he had to understand this technology. He had to join this technology, and he had to protect where the technology was bringing him and his business.

You will hear testimony about what his life experience is like that brought him to that day underneath the Jeep Cherokee looking up at a computer cable.

Back in the '70s, Mr. Flick began the process of where we are today. He had difficulty in high school. You will hear from him directly. He didn't have the book learning that a lot of people had. He had difficulty in school. And his father found him a trade school, an airplane avionics mechanics school, sent him off to learn how to be a mechanic.

Mr. Flick realized at that point that he was good at something. He could visualize how these mechanical parts worked. He could visualize the electronics that run through the wire system.

He couldn't read about it. He couldn't very well articulate it, and he couldn't write out for you. But when he got in that shop learning about airplane mechanics, learning about airplane engines, he finally felt that he found something he was good at.

And while he was going to a good trade school, he had to work part time at a local grocery store. And Mr. Flick will tell you about this grocery store, an event that changed his life and, for the next week, changed your lives. Someone tried to break into his car while he worked as a part-time manager at a grocery store. He decided, I can't afford to have that happen. I need to have an alarm in my car.

At the time, you couldn't go down to the local

Best Buy and buy an alarm kit and install it. So Mr. Flick had to draw upon what he had learned in trade school and from scratch design a car alarm system for his car. He had to get the actuators. He had to run the wires. He had to figure out how it all worked. He couldn't go to a book and read about it. But he was able to sort it all out, the individual relays, all the component parts, and he designed a car alarm for his car, and he'll tell you about that.

His friends saw his car alarm. Wow, that's quite a job you did, Mr. Flick, Ken. I want one of those. And before he knew it, he was in the business of alarm systems, generating alarm systems, creating alarm systems for cars, for boats. He was in the Miami area, so he had quite a few customers in the boats.

It became a full-time job for him putting together alarms, designing alarms, designing systems. There were certain obstacles he had to overcome. Boats, as they floated in the water, you couldn't have certain actuators or motion detectors in those, so he had to design different alarm systems for all kinds of different things. He became very popular in that business.

He opened a storefront in Miami, expanded his business to selling car stereos. And some of us are old

enough to remember CB radios that very were popular. He designed those. He didn't design those, but he installed those, designed the mounting brackets. Eight-track cassette tapes, for those of us that are old enough to remember those, he also installed those.

He sat in that storefront, that stereo store, for several years. He slept in the back in a cot. He didn't have a high school education he could rely upon, but he knew what he could do with cars. And from that beginning, he developed quite a business. He was known as Omega Research and Development.

It was a small entry into the market, into the car business market, new car accessory market, and he designed his own car alarm systems. He designed things such as automatic transmitter verifications.

The only way he could stay up, stay competitive with the major manufacturers was to be innovative, so he always was one step ahead of the larger manufacturers. His innovations would be shown. He designed different modulations for sirens. He designed all kinds of things that made his products different and better than the larger manufacturers.

He grew that business into a distributorship. He decided he wanted to distribute and create his own electronics products for car parts and car accessories.

He moved the business to Atlanta, became known again as Omega Research and Development, and that was his key, research and development. He would stay a step ahead of the manufacturers.

Initially, and Mr. Flick will testify to this, it was pretty easy. He could come out with new ideas, new conveniences, new devices, and it would take about a year for the big manufacturers to catch up and copy him, part of the doing business. He understood it.

But as more of the manufacturing moved overseas, he began to realize that return time for people copying him was much shorter. And instead of a year before they were copying his inventions, they were coming out in six months, nine months, as much as ninety days. Some of his own units were being sold to his competitors. So he decided that it was a time that he was fortuitous enough to have a brother-in-law working with him. He said, I just met a lawyer, and they have a patent division. I think you need to talk to that lawyer and start protecting some of your ideas, because you're way ahead of the group, and he'll tell you about that.

He met a patent lawyer. And he described to a patent lawyer -- he was a little nervous at first about meeting a patent lawyer, because he couldn't -- as you

saw on the video, most times you write out your invention, put it all down and bring it to a lawyer. Certainly Mr. Flick, as he will tell you, was somewhat intimidated by the process, but he knew it. He had it up here. So he found a patent lawyer that would work with him, sit down with him, let Mr. Flick explain the inventions. And that patent lawyer would turn it into legalese, technical jargon, everything the Patent Office expects, everything the Patent Office is used to seeing.

Mr. Flick began to get patents awarded to him. Mr. Flick began to see the benefit of getting patents. He started generating more and more patents, which brings me back to the Jeep Cherokee.

In the '90s, as I mentioned, Jeep Cherokee decided they were going to begin the process of computerizing. And rather than running miles of wire, hard wire in your car for every different component, they were going to try and computerize it.

Mr. Flick's life of eating, breathing, and living car alarms had taught him the way you install car alarms is you hard wire it to the door, to the siren, to the power. He had to learn an entire new way of doing. He had to learn how to get the computer version of those hard wires to work for his system.

So as he crawled around that Jeep Cherokee, he

had to learn about device codes. He had to learn what was being sent to the devices to act -- to make them act at his request. He had to learn about circuitry. He had to learn all kinds of things about how it worked in order to understand where the market was going so that he could continue to be innovative and stay ahead.

Mr. Flick sat down with his patent lawyer, and they were talking about some other patents. And his lawyer turned to him -- and Mr. Flick will tell you what happened -- he said, these are all well and fine, Mr. Flick, but where is your industry in five years. That's what you ought to be thinking about. That's what you ought to be trying to patent. Get ahead of the game by that far.

And Mr. Flick, by virtue of how he thought and how he went about his business, knew exactly where the industry was going to be in those five years after studying the Jeep Cherokee. He understood that the manufacturers would be making everything computerized.

He understood that the manufacturers would each have their own computer language for the cars. He understood that in order to sell product, he would have to have a product that was universal, could fit a number of different cars, so he had to try and figure out, how am I going to stay competitive in this

business. I can't have an alarm for a Jeep Cherokee and then a Pontiac Firebird and then a Ford Ranger. I've got to have one unit that can communicate no matter what type of computer system we have.

And he relayed this all to his patent lawyer, gave him all the information, all the details. Here's how I would do it. Here's what's going to happen. Here's what I'm going to do to solve it. Here are all the issues. Here's what the industry's going to be in five years. And here's how I'm going to stay relevant, how I'm going to stay ahead of the game. That patent lawyer put it all together and filed a number of patents on the data bus system. We have four we're talking about today, but he's got over 50 of them. He was a man ahead of his time.

So what patents are we here about today? Well, let me first tell you a little bit, if we haven't caught on about the data bus -- and you will hear the testimony -- the data bus is, in its simplest form, a computer cable.

If you look at your home computer, the cable at least used to run from computer to your printer. It would send messages to your printer about what to print, how many pages, that type of thing. Those were beginning to show up in the cars. It would send

messages to the door alarms. It would send messages to the engine. There is diagnostics that would say, well, your engine didn't do this or your engine backfired or something of that nature. And so, this data bus that runs through the car would become universal through all the components. So, Mr. Flick had to learn how to tackle that and get into that.

So after the years, after he sat down with his patent lawyer, told his patent lawyer what he foresaw the industry becoming five years down the road, the Patent Office took his application, studied his application, studied what was known in the industry, looked at what in the video was described as prior art and issued the four patents we're here about today.

The patents will be entered into evidence. The first one is a joint exhibit. In fact, all four of them are joint exhibits. This is known as the '876. Because lawyers, we're generally lazy. We're not going to read the whole number each time so we take the last three numbers and identify the patent as the '876.

Also, we have Joint Exhibit number 3, which is the '885 patent. This has been issued by the United States Patent Office. We have the '727 patent. And finally, we have the '278 patent. I'll tell you more about the patents, but these will all be in evidence,

and you will have the opportunity to look through the patents, but you will hear more about them throughout the trial.

You heard on the video about the process of getting a patent, the back and forth from the Patent Office, what's known as the file history or file wrapper.

You will hear about the process that went through for each of the patents. This is the Patent Office's response to the filings by Mr. Flick, the study of the patents. You will have the opportunity to review this information. It's assigned to an examiner. The examiner searches it. He's a specialist in this field. He searches to find out what's going on, what's prior art at the time. He makes sure that Mr. Flick has, indeed, invented something useful and novel. He goes through the process to make sure the claims talk about what the invention is and fully describe the invention.

He looks, makes sure that there's nothing else out there, and he identifies what he's looked at. And the patentee gives him any information he may have missed. And this back and forth is what results in the issuance of a United States patent. These are all joint exhibits. They'll all be available to you.

So if we could pull up the '885, I'll walk

through with you. This is Mr. Flick's patent, the '885 patent. As you can see, this is just the first page, known as the title page. And if you could highlight the title, this identifies for you what the name of the patent is. The inventor, you will see identified there as well. That's the person who submitted the application as the inventor. You will see the patent number, U.S. 6,756,885-B1. We refer to that as the '885. So when we refer to different patents, you can find the number, the last three digits at the top of the title page or the cover page.

You will see the assignee. The assignee is who it was assigned to by Mr. Flick. That's Omega Patents, LLC. That's the company formed to hold his patents, and that's the plaintiff in the lawsuit here today.

You will see the date that he filed it. And you will see what we refer to as continuations. Those various dates relate back to when he first began the process. Some of his claims may relate back as far back -- but that gives you an idea how far back these inventions go, and that gives you an idea of what the prior art that's relevant, what to look for, and what the time frame of the invention is when you begin to look at whether what he invented was patentable.

You will see the references cited. And on the '885 patent, you've got -- these are the references or the pre-existing knowledge in the industry that the patent examiner relied upon when he made the determination of whether this is patentable. It's not just United States patents that he relies upon. He relies upon magazine articles, technical journals.

And if you turn the page, they continue on. So this examiner for the '885 looked at not only what we see on the cover page, but all these other prior art references. Perhaps that's why you saw such a large stack of documents for the file history, quite a bit of work, quite a bit of information that went in before the examiner ever issued the patent.

If you turn to the next page, the section known as the specification. And the specification is many pages long. And what it describes is the state of the art. It describes what the problem is, how he's going to solve it, and various ways to solve it. And that's all what Mr. Flick explained and the lawyer put down into more technical terms.

If you will focus on column 2 and line 25, you will see that Mr. Flick and his lawyer disclosed what I started out this morning -- or this afternoon talking about. That's the Jeep Cherokee. He was describing

what he found and how he was going to solve the problems and how he was going to be inventive moving forward.

And as you saw and on the video, what we really focused on and what you will spend much of your time on are the claims. In the patent, the inventor puts down all of his information, the problem, how he's going to solve it. And then, at the end he concludes with what he claims to be his invention.

So if we look at Claim 1, Claim 1 is a series of elements that he must prove or that -- I'm sorry -- are the elements of his invention. For plaintiff to prove infringement, we have to prove that the units by CalAmp contain every one of those elements. That's the invention, that claim.

There are a number of claims in any given patent. Each claim acts as its own independent invention. Just because you've infringed one claim doesn't mean you infringe them all. They're all a different scope. If one's questionable, they're not all questionable. They all have a different scope.

And there's what we call dependent claims. If you go to Claim 14. Claim 14, as you will see, depends upon Claim 1 and talks about everything that I've claimed in Claim 1 as my invention and this additional element. So as we go through the

infringement analysis, we'll check off each of those elements, whether it's found in the accused device.

So what is -- I keep referring to the accused device. What is the accused device? The accused device is a product made by CalAmp, the defendant in this case. It's known in CalAmp as the mobile resource management communication devices, known as LMUs, location messaging units, and they are literally little black boxes. These are two LMUs, 3000 and the 3030.

These are plugged into an automobile, and they connect to the data bus of the automobile, and they send signals. They have little cell cards in here. They send signals, radio frequency signals and give information about where the car is, what it's doing, how fast it's going. It gives information such as that. That's what the issue is today. Do these units and their companion, known as VPODS, do these meet all the elements of Mr. Flick's invention?

And the VPODS simply connect into the data bus element and act as a component part of the LMU. You will hear testimony exactly what they do, but they plug in. They read the information from the data bus of the car.

So how do we get here today? Mr. Flick is in the business or was in the business of selling product.

He started out saying, I'm going to keep my inventions to myself, because that's how I stay ahead of the curve. Well, eventually as he got older and began to experience some health issues and his family complaining he's working 24 hours a day, he began to see the benefit of licensing to others some of his patents. So he went through a program and began to license. He charged his own company, Omega R&D, a license fee to use his technology.

He began to take others in. He wanted only those that were honorable, that were innovators -- innovative, not just copycats. He wanted companies such as him. And one of the unique aspects of his licensing program is that he would act as a conglomerate.

In his license, he required, if you take my products and you improve them, then we'll have those improvements, I will patent them, and we can continue to improve upon what I've got. So he's got an innovation clause that any innovation belongs to Omega Patents, LLC. He's required that of all of his licensees.

All of his licensees pay money for the right to use his patents. And you will hear testimony from Mr. Flick all about the licenses. And you will see many, many licenses. And these are not small entities that simply gave up.

There are three main players in the market. Directed Electronics, Audiovox, and Omega. Audiovox came to him directly, said, Mr. Flick, I really like what you've done. I like your inventions. I want to license it. No fight, no muss. No argument about validity and infringement. They wanted a piece of what Mr. Flick had to offer.

Directed Electronics took the opposite tact. Your patents are no good. You can't invent anything. You don't have a degree. They don't infringe. Mr. Flick had to go through this process before and sue Directed Electronics, and he'll tell you about that. After the jury returned the verdict, Directed Electronics became a licensee. He refused to license many in the industry, because he didn't trust them. So he made many of the industry stop practicing his invention.

Then, along comes CalAmp. CalAmp began manufacturing tracker devices. Then, Mr. Flick approached CalAmp at a SEMA show in Las Vegas, a trade show. He said, look, I've got all these patents. You've got products that I think infringe. Let's sit down and talk about it. And you will hear from Mr. Flick about what happened at that meeting. This was in 2009. They talked down to Mr. Flick. He didn't have

a degree. He wasn't -- nothing in his patents were worth anything. Everybody had already done it. It was all known. It was all obvious. I'm not taking a license.

Mr. Flick, he'll tell you, he had to sue them. Sued them in 2010. Met them at the next trade show. And then, their position changed a little bit. And you will hear about their position then. No longer was it. you didn't invent anything. It was, well, we don't really infringe because we don't put anything on these devices. They have to be programmed, and our customers do all the programming, so we don't do anything wrong.

So Mr. Flick said, well, let's put that lawsuit on hold, and he'll tell you about that, and I'll sue your customers if that's what you want. He sued a customer. The customer signed up for a license. He sued another customer, Sky Patrol. And you will learn that the story changed again.

Now Sky Patrol said, why are you suing me? CalAmp programmed everything that we have. So CalAmp steps forward in that lawsuit, says, okay, I'll pay for those units. I'll take a license for those units, but I don't want a license for anything else. Again, Mr. Flick's saying, look, if you've got these units, you need to pay me a license on them.

CalAmp then came out with these LMU units. And you will see the e-mails back and forth about the LMU units. Mr. Flick again said, look, if you're going to come out with those units, we need to talk about a license.

The story was back to, you didn't invent anything. You didn't do anything. I don't care what the Patent Office says. We don't have to pay for a license fee. That's what brings us here today. CalAmp did not want to pay a license fee. CalAmp does not believe a gentleman without a degree can invent anything. CalAmp believes a man who can't read or write particularly well certainly wasn't an inventor of anything important. It was all known. It was all in the past.

So our job this week is to explain to you how the LMU units and the VPOD units infringe the claims of the patent. And we will focus on the claims of the patent. We will provide evidence and testimony on how the units work, what the features of the units are, and how they correlate to the claims of the patent.

The Court will tell you what some of the claim terms mean. The Court will instruct you that this means this and this means that to help you understand the claims. And our expert, Mr. Joe McAlexander, will take

that Court's construction and apply it and he will provide you with the opinion that, yes, indeed, these units infringe Mr. Flick's patents. It'll be tedious at times. We'll have to go through it item by item. It'll be tedious perhaps more so when we have to present our evidence of what these units do, that CalAmp, as I mentioned earlier, is not required to bring any of their representatives here to trial.

I can't force them to bring them here, so we'll be playing videotaped depositions. As the judge mentioned to you, it's as if they're testifying here live. It's just somewhat difficult and tiresome to sit through, but you will hear from them, from the engineers, about how the products work, what they do to check off each of those elements in each of those boxes.

That burden is ours. Mr. Santurri and I will present you the evidence by a preponderance of the evidence that the units infringe each of the claims and each of those elements of the claims and, therefore, they infringe.

You will hear about the damages. You will hear about our licensing program. You will hear about all the various licenses Mr. Flick has obtained. You will hear from, again, another expert, Mr. Tregillis, who will tell you what he believes a reasonable royalty

-- a royalty is a form of a license -- that should be charged CalAmp for their acts of infringement. It's a legal definition that's somewhat awkward at times.

You have to -- for purposes of damages -- have to pretend there's a willing licensor, a willing patent owner, and a willing infringer that sit down together and agree on what a reasonable royalty is, so we have to sort of create this construct and provide you evidence of what -- if these two people were willing to do so, what a fair royalty would have been. And we'll provide that evidence for you. We'll analyze the various licenses. We'll present testimony from Mr. Tregillis about what that reasonable royalty is.

Again, that's our burden by a preponderance of the evidence what we believe will show to be a reasonable royalty for the infringing activity of CalAmp.

So where does that leave us? If it was that easy, we wouldn't be here very long. CalAmp has every opportunity to present its defenses, and they will do so. They will take the position that, no, we don't really infringe because of the word controller.

They will take a position on controller that you need to compare to what the judge will tell you that term means. They'll bring an expert in. And he will

say, we don't infringe because it doesn't control anything. So you have to take that into consideration, but particularly pay attention to what the judge will instruct you as to the term controller, and you make the decision on whether you believe it's found there.

They will also take the position, as they did before, that this really isn't anything new. This was all known. And if I had been back -- I being Mr. Gallin Chen or their expert -- back underneath that Cherokee in the '90s, I would have known all the same things.

So they will pick pieces, other art. They won't rely upon what the examiner studied. They'll pull together various other ones and say I can find this element here. I can find this element here. And the legal standard is whether one of ordinary skill in the art would have found it obvious. And that's going to be what you will hear about primarily.

They have to prove that that person back under that Jeep would have rendered it obvious based upon what was known. And they can't just say, gee, it would have been obvious. I'm done. See you later. They've got to prove it by clear and convincing evidence. But the law also provides safeguards against hindsight.

In other words, paying an expert to come in and say, oh, it would have been obvious. There's other

evidence that comes in to help us make sure we're making the right decision. One of those legal standards is you can't use the patent as a guide for what would have been obvious. In other words, I can't look at my patent and say, oh, yeah, I would have thought of that. I would have thought of that. I would have thought of that. It's just too easy.

So the courts and the law requires that you must provide some reason to combine these elements. Why would somebody have done that back then? What would be the motivation? Why? So easy to look back in time and say, gee, I would have done that. So the law requires some motivation to combine all these.

And the law also says, and on top of that we're going to look at what we call secondary considerations. In other words, because we have to go back in time, can we look at some objective things, rather than just an expert's testimony, and determine what would have been obvious.

And those objective things include, did others copy the invention? Did others license the invention? Was it novel at the time? That's the standard. And it's not simply saying, yeah, it all would have been done. It's proving by clear and convincing evidence in light of the objective standards.

I believe at the end of this case when the evidence is in, you will have an abiding conviction that the patents have been infringed by CalAmp, that the patents are clearly valid. And at that time, we will ask you to render a verdict in favor of Mr. Flick and Omega Patents, LLC for infringement of his four patents. Thank you.

THE COURT: All right. Thank you, sir.

We'll now be hearing from the defense.

Who will be speaking on behalf of the defendant?

MR. KAUTH: I will, Your Honor, Joel Kauth.

THE COURT: All right, when you're ready.

When you're ready, sir, go right ahead.

MR. KAUTH: Thank you, Your Honor.

This is a case about technology, innovation, and the ability to bring an actual product to market. In the next few days, you're going to hear a lot about technology, and you're going to hear that CalAmp spent years developing these products -- the LMU-3000, the LMU-3030, and the VPOD and VPOD2 devices. These products were based on existing CalAmp LMU products, mainly the LMU-2600, which was a much larger product, and it was shrunk down to this to fit into what's called the vehicle data bus that Mr. Gilchrist just spoke

about.

You will see that these devices were the result of hours and hours of CalAmp engineering. And CalAmp also partnered with a diagnostic scan tool maker to get their technology, because they were familiar with plugging into the vehicle bus.

My name is Joel Kauth, and I represent the defendant, CalAmp Corp. Let me tell you a little something about CalAmp. They're in the communication business. They do what's called mobile resource management or fleet management. Mainly, they provide communications. What they typically do is provide their clients with a way to manage their equipment. Some of their clients include counties and cities in Florida, Miami-Dade County, the Public Works Department, the Fire Department, and the Parks Department all employ the CalAmp devices in their vehicles and other equipment them to monitor their location and monitor the status of the vehicles.

The City of Miami Beach, the Public Works Department, Police, Fire, Building and Code, Parking, and Parks Departments all use CalAmp equipment to keep track of their equipment. The City of Jacksonville Public Works Department, the Tampa Fire and Rescue, these are just a few of the CalAmp clients in this area,

and they depend on CalAmp to provide the technology to monitor their equipment, to best utilize it, and to make sure it's properly maintained, especially for agencies like police and fire departments.

Generally, these little boxes would be called a telematics device. It's just a complicated way of saying something in the vehicle that can remotely send out information, monitors the vehicle, things like engine temperature, fuel levels, the odometer readings so you can tell when it's due for maintenance. It collects that data and it sends it to a remote location. This makes it much more easy to manage an entire fleet of equipment. That's what the LMU devices do. And, as Mr. Gilchrist stated, LMU stands for location messaging unit.

Now, the LMUs didn't originate with CalAmp. LMUs go back to the late '90s to a company called Technocom. And in about 2006, CalAmp acquired the LMU product line from Technocom. It's kind of indicative of how CalAmp works. Often, they need to have newer technology for their clients. They're happy to partner with others and go out and get the technology they need.

Here, they didn't only acquire the product line from Technocom. They brought over a lot of the engineering as well. Later in the case, you will hear

from Mr. Pete Hergesheimer, who was one of the head engineers at Technocom working on the original LMUs. Mr. Hergesheimer is now the CalAmp Senior Director of Software and Architecture. He's the one that works on the software that works inside these LMUs to make them function.

As I mentioned, CalAmp's always striving to provide better technology to better meet its customer's needs. That's why the LMU-2500 evolved into the LMU-3000 and 3030 so that CalAmp could have these devices hook into the vehicle data bus.

Well, CalAmp has a lot of expertise in-house. Sometimes it goes outside, like it did with Technocom, to acquire their vehicle line. Sometimes it goes and acquires patents through licenses with others or acquires technology.

You will hear that CalAmp has licensed a number of patents for wireless technology and other things involved in these devices. In this case, Omega accuses these CalAmp devices of infringing its patents.

A lot of the technology in these devices, though, comes from the earlier CalAmp LMU units, things like the ability to monitor location with a GPS unit, things like the two-way radio to receive and send data, all those existed previously. The feature we're really

focusing on in this lawsuit is the connection to the vehicle data bus.

So what's a vehicle data bus? It is just a communications path. It's the way the data moves around inside the car. And in vehicles since about the mid '90s, it's been required. And so, by tapping into the vehicle data bus, you can get critical information like engine temperature, fuel levels, things about the spark plugs and whether it's running properly.

You will hear a couple different names, CAN, VPW, PWM. You can think of those as different flavors of the vehicle bus. Those are different protocols that are used to communicate on the vehicle data bus. And you're also going to hear testimony about some important milestones regarding the vehicle data bus.

The vehicle data bus is in the automotive industry, so it's not surprising the Society of Automotive Engineers, or the SAE, sets out the standards for how you talk on the vehicle data bus. They have the bit length of the message, which is basically computer language for the format you need to properly send a message on the bus. They have standards on what voltages should be used and what pins in the little connectors should be connected to here.

Well, one of the standards the SAE put out was

J1978, and you will hear a lot about that in the coming days. J1978 started back in about 1992. You will be seeing a version from 1994. And what J1978 specified is a way to hook a vehicle device up to the vehicle data bus. And that device was called a diagnostic scan tool.

You will hear about a system called OBD for On-Board Diagnostics and its successor OBD-II which is the next generation. And the reason for that and the reason for creating OBD2 was to make it easier to maintain vehicles. Prior to J1978 and the ability to hook up to different vehicles with one device, you usually had a very proprietary system. If you had a Ford vehicle and needed to be serviced you needed to take it to the Ford dealer if you wanted to know what the check engine light meant on the dash.

THE COURT: Mr. Kauth, I am so sorry to interrupt you. One of our jurors needs to take a quick break. So we're going take a few minute break. And I really apologize for interrupting your train of thought. We'll let you pick right back up. We'll take about -- is five minutes satisfactory? Five or ten minutes? Okay. We're going to take a five or ten-minute break, and then we'll be right back. And I do apologize for interrupting you. We'll let you pick back up wherever you need to.

MR. KAUTH: Okay.

THE COURT: I apologize again.

(Jury exits.)

The record should reflect the jury has withdrawn. Let me tell you -- please be seated. Let me tell you that the note I received is, "I need to take a break. The pain level is bad." That's going to be from juror number 2, Ms. Armbruster. She's the lady who had the dental surgery and was doing a follow up with her doctor. I think she's obviously in a lot of distress.

And again, I apologize for interrupting. But when you get this sort of note then, obviously, she can't pay attention to what's happening. Let's give her a few minutes to see how she's doing, and then we'll have to play it by ear as we go forward with the case.

Hopefully, she'll get some relief from her dentist, and we'll be able to move forward. If you need to know where you were leaving off before they come back, then you can back up and get a running start again, because I do understand having momentum matters. But there wasn't much I could do about that. So I apologize.

I'm going to mark this as Court's Exhibit number 2, the juror question. All right. If anyone needs to step out for a moment, feel free to. We'll be

in recess for about ten minutes, which will be until five after 4:00. Any comments by either side as to how we should proceed or do you want to just do as I'm suggesting, which is to give her a few moments and see if she's able to carry on?

MR. GILCHRIST: That would be my preference.

MR. KAUTH: That's fine.

THE COURT: And we'll know better by tomorrow morning once she's had a night to rest up.

All right. Thank you gentlemen, and lady.

(Recess from 3:56 p.m. to 4:08 p.m.)

The record should reflect the jury is absent, the parties present. Our juror is ready to go. She just had some pain, and she's going to power through. So do you need to know where you left off or are you comfortable --

MR. KAUTH: No, I think I'm good, Your Honor.

THE COURT: All right. Why don't you go ahead and take the podium again, and we'll have the jury come in. All right. When you're ready.

Again, I apologize for the delay.

(Jury present.)

The record should reflect the jury has returned, and the parties are present.

All set to continue? We're going to be

succinct and try to get you out of here, but let us know how you feel after this, okay?

THE JUROR: Okay.

THE COURT: All right. When you're ready, please continue.

MR. KAUTH: Thank you, Your Honor.

So we were talking about the check engine light on your vehicle and why that matters. When the light comes on, you don't usually know what it means. It just says, check engine, and you need to take your car to a shop to have them hook up to a tool and tell you what that needs.

Well, after J1978 standard came out, one device could tell you what that light meant. Whether you had a Ford, a Chevy, or a Chrysler vehicle, you could plug this diagnostic scan tool into the vehicle data bus port, and it would determine what type of bus that vehicle had. That procedure is the bus determination procedure.

Well, how did that work? It would send different signals. There were, back in 1993, three different bus protocols. So it would send a message in the first protocol basically saying, is anybody out there. If it got a response back, it knew, I'm on the first bus protocol. If it didn't get a response, it

would send the second bus protocol and wait for a response. And whichever message -- whichever query it sent out received a response it knew it was on that particular bus type, and then the diagnostic technician could check your car.

You will hear testimony from Mr. Andrews. He's an engineer that worked in the automotive industry for over 20 years and had personal experience dealing with the SAE standards and with the vehicle data bus. He's going to tell you why the data bus was very well known in the industry and why anyone working there would need to know the standards and how to utilize them.

In this case, Omega claims the CalAmp products infringe because they follow a bus determination procedure. Now this bus procedure, J1978, originated back in 1993. It's evolved up to the current day. But the real change is just in the number of messages it sends. These days, there's more bus types than there were back in 1993. So instead of sending three message types, it sends six. But you will hear from the experts that that's really just the difference is the number of messages in the bus. Effectively, the standard's the same.

You will hear testimony that Omega didn't invent the data bus. It was definitely out there when

they saw it in the Jeep. You'll hear testimony that Omega didn't invent the bus determination procedure, that that existed as early as 1993 in this J1978 protocol.

And you will also see that the Omega patents don't actually discuss the bus determination procedure. They have a vehicle communications bus. And you will see they have an alarm indicator, door lock actuator, remote engine start device.

What the Omega patents disclose are control functions, things like remotely starting your vehicle, things like turning on or off an alarm system. You will hear testimony that Mr. Flick himself was not familiar with the vehicle determination procedure or the different messages that it contains.

Now, J1978 is very important not only because it specifies how you connect data bus vehicles, it's also important because the Patent Office never considered it when it allowed the four different Omega patents at issue in this suit.

Despite widespread industry knowledge of J1978 and all the different products that utilized J1978 to connect to the data bus, you will hear that Omega didn't know about J1978 and, therefore, never disclosed it to the Patent Office. And you will see from the patents

and their file history that the Patent Office didn't find it itself, either.

So even though J1978 was published back in the '90s, you will see that years later with patents filed in the years 2000 and 2007, Omega's claiming that following the J1978 bus procedure infringes its patents.

Now, when we look at the CalAmp devices, we look and see what do they do. Well, they follow the J1978 bus procedure. They don't actually control door locks. They don't have an alarm indicator. And they don't have a remote engine start device. They just read data from the bus.

Now, Mr. Gilchrist mentioned that this isn't the first meeting between Omega and CalAmp. Back in I think it was 2010 or 2011, Omega sued CalAmp on some patents different from the ones in this lawsuit, and none of those patents actually claimed the data bus. Those were for vehicle trackers. That case was dismissed, but discussions continued between the parties.

At that time, CalAmp didn't have any devices that connected to the vehicle data bus. But when CalAmp began exploring the vehicle data bus because its customers wanted that connectivity, they resumed discussions with Omega. They actually looked to see if

Omega could provide the technology they needed to take an LMU-2600 and connect it to the vehicle data bus.

What they found was Omega couldn't provide that technology. And you will hear testimony that Omega didn't actually make products at that time. They just had the patents. The technology was coming from someone else.

Well, not being able to find the technology from Omega, CalAmp had to look elsewhere, and they went to a company called B&B Automotive. And we'll get to them a little bit more, but let's step back and look at who Omega is. We heard they're Omega Patents, LLC. They've got a lot of patents, I think 50 plus, they said, on the data bus. And there was a previous related company that Mr. Flick ran called Omega R&D, and they actually made products, but you will hear testimony they never made a product that worked on the vehicle data bus.

As we looked and as we'll see in a lot more detail in the coming days, the Omega patents are for innovations in the alarm industry. They're for control functions and controlling the operation of vehicle devices. The patents talk at length about arming alarms, unlocking doors, or remotely starting your vehicle for either when it's really cold or really hot

out, but they don't talk about just reading data from the bus.

Now, as I mentioned earlier, Omega didn't invent the bus. They didn't invent the bus determination signal -- or the bus determination procedure, and they didn't invent other things that are in their patents. You will hear testimony that the command signals claimed in Omega's patents were known. In fact, they have to follow an SAE standard to work on the bus. The device codes that are claimed in the patent were also known. Those, again, have to follow an SAE standard, otherwise they don't work on the vehicle data bus.

So let's get back to CalAmp's efforts to make its LMU work with the vehicle data bus. So CalAmp takes patents very seriously. They've dealt with a lot of patents. They have patents of their own. They have licenses with other companies for their patents. So knowing that the Omega patent's out there, CalAmp undertook an investigation to determine what the Omega patents covered and whether or not the proposed CalAmp device would be covered by those patents. But CalAmp didn't just look at Omega's patents. They looked at everyone in the industry.

You will hear from Mr. Gallin Chen about the

hundreds of patents that he reviewed to try and determine sort of the landscape of the prior art out there and also to see what existing patents were out there that they might need to take a license to.

So, CalAmp wanted to create this device to monitor remote data. Well, after investigating the Omega patents, they determined the Omega patents were for these alarm systems, that they all required that the controller performed one or more control functions, as the Court will instruct you, and that the CalAmp devices don't perform those control functions, and they don't send command signals to operate vehicle devices. They simply read data. So, CalAmp concluded that they didn't infringe the patents.

But having unearthed all this prior art, they looked deeper. CalAmp thought, well, we don't infringe the patents but Omega says, a control function anything. Just ignore the word control. Anything on the bus, that's a control function. So even if you're just reading data and not actually controlling operation, consider that a control function.

With that definition, CalAmp looked and said, well, if you take that definition, there's a lot of prior art out there. You will hear from industry experts, Mr. Andrews, Mr. Chen, and Mr. Hergesheimer,

who are engineers at CalAmp, that a control function, as known in the art or known to those of ordinary skill in the art, requires more than just reading data.

You will also see that when CalAmp looked at the patents, they decided, okay, if we look at the patents, and let's pretend that maybe Omega's right, maybe these patents cover anything, just reading data is enough. Well, then, they started unearthing lots and lots of prior art.

The first one you will see here is Nathanson. Now that's a patent where an engineer took a scan tool, a diagnostic scan tool, and decided that that would be a universal type interface and he could connect a computer to a vehicle and that would act as the translator, and that's for reading data.

The next one that we'll take a much deeper look at in the coming days is the Lane patent. And again, that has the OBD-II diagnostic scan tool connected to the bus to read the data. And this is mobile in a vehicle. It's sending out the data. It operates very much like the CalAmp devices.

So it's not a coincidence that when CalAmp decided, we need to make our device, we can't get the technology from Omega, where should we go, they looked at diagnostic scan toolmakers. They said these people

know how to read the data off the bus, so let's see if we can incorporate their technology. And they went to a company called B&B, who made a scan tool called the auto tap. That's a popular consumer one that you might know that kind of car enthusiasts take this, they can plug it into their interface at home, and kind of find all the detail about their car.

So, CalAmp went to B&B and partnered with them. CalAmp had its existing LMU-2600. And they said we'll take that technology, we'll shrink it down to fit in a much smaller package, but we still need an interface to connect to the bus.

So you will hear testimony from the engineers that this little box has what's called the LMU layer, and that's kind of the existing CalAmp technology, and it has the OBD layer, and that's where they basically took the B&B scan tool technology and incorporated it into their device.

CalAmp's also branched out. They went to Innova -- that's another scan tool maker -- and kind of did the same thing. They updated their device to the LMU-3030, and they went to Innova and said, well, we already know how to make the LMU layer of this device -- that existed for a long time. We need your help making the OBD layer or the scan tool layer of this device.

So they incorporated the Innova technology into the device.

You will hear testimony that they paid royalties to get that technology from B&B and Innova, respectively. Part of the -- you will hear testimony that part of the royalty they had to pay to B&B was a license for the CAN bus that goes back to Bosch. And that's a German company that was one of the original developers of the CAN bus.

So to get the technology from B&B, which included things like codes for many different vehicles, tech support, ongoing engineering and help with shrinking it all down into this package, and then this little license to cover using the bus, you will hear testimony that that part to cover the bus is 17 cents a unit.

You will hear testimony that they pay, I think, slightly over a dollar to Innova for their technology for the bus. So as I mentioned before, CalAmp unearthed a lot of patents, a lot of prior art when it was searching to see what was out there.

You will hear more about the Spaur patent. And what did the Spaur patent cover? The Spaur patent was a control system for a vehicle that had a GPS unit, a two-way radio, and it could communicate in both

directions on the bus with vehicle devices at one end and remote devices at the other. You will hear it gives an example of what type of bus you can connect to, the CAN bus. And you will hear testimony that that's a very common bus in the automotive industry.

You will hear about the Bambini patent. And again, you will hear it's a system that allows users to remotely control vehicle accessories, including a transmitter, a receiver, a GPS unit, and a controller that sends control signals to vehicle devices, such as for unlocking doors. What you will see as we go through these is they all have the features that are listed in the Omega patents. You will also hear testimony that things like GPS unit, transmitter, receiver, those were all known well before the Omega patents.

We'll hear about the Braitberg patent, again, a two-way communication device. It communicates over the bus with vehicle devices, and it's got a GPS unit to perform location. It's got a controller that performs control functions, and it sends commands to different vehicle devices to operate those devices.

You will hear about a cell port mobile web device that was kind of ahead of its time. This company wanted to put a web server in your vehicle. And that web server would connect to what they called the vehicle

LAN, a Local Area Network, over a standard automotive protocol. Well, you will hear testimony that that's referring to the vehicle bus. And they say that what they wanted to do with this mobile web server in your vehicle would allow remote connection so you could log on and see what your engine temperature was or different vehicle parameters. Again, moving data over the bus.

You will hear about Johnson. That's a patent that disclosed the control and communications device, again, controlling vehicle devices over the vehicle bus, had a two-way radio, had a lot of alarm features, and it's all to transmit the data back to a central monitoring system for security purposes. And you will hear testimony that Mr. Flick's brother-in-law went to work at that company. And his patent was years before the Omega patents were filed in this lawsuit.

You will hear about the NEOTech device. Again, I know it's getting monotonous, but it's another two-way radio device that connected to the data bus. It had a GPS unit for determining location and could send bus data, like vehicle speed, out to a remote location.

Suman is another patent you will hear with basically all the same things -- two-way radio, GPS, a controller that talks on the bus to devices in the

vehicle and sends commands over the bus to make those vehicle devices perform specific operations, such as locking doors, monitoring data or reprogramming accessories.

And you will hear about the Lhamon patent. This one is a little simpler. It's sort of the OnStar type thing where your car was locked and you walked and lifted the door handle. It would wake the controller up inside the car. And then the remote device could send a command and unlock your door for you, if you locked your keys out of your car. You can see on the picture it had a two-way pager communicated with the device and a signal would come into the car, go over the data bus and unlock your doors, performing a control function.

So as jurors, no doubt you know you're going to hear a lot of information. You've heard a lot just today, and we've got several days more to go. Your job as jurors is going to be to consider all that information, determine what the patent covers based on the instructions you get from the Court, and see if you think that's what's inside these boxes.

As you've heard previously, Omega has the burden to prove infringement, and you will hear that CalAmp has the burden to prove invalidity.

You will be asked to compare the claims at a

very, very detailed level, element by element, to see if each element is present in these accused CalAmp devices. And what you will find is it's not.

You will hear testimony that for each Omega patent, as applied to each of the CalAmp devices, there is no controller in the CalAmp devices that performs a control function. That's a definition you will hear from the Court.

You will hear that the CalAmp devices don't send out these command signals to operate vehicle devices like the door locks or the remote alarm system or the remote start as shown in the Flick patents. And that's required in the '876 patent.

You will hear that the CalAmp devices don't use device codes as required in the '885 patent. And you will hear that the CalAmp LMUs don't measure speed off the bus when comparing to a threshold, as required by the '727 patent. Instead they take the speed from a separate GPS unit that's not even on the vehicle bus.

As to the prior art, you will hear that CalAmp's contention is that they don't infringe these patents. But you will also hear that if Omega's allowed to stretch these patents out to cover simply reading data and not limit it to the functions disclosed and actually invented in their patents, that CalAmp believes

those patents have to be invalid based on the host of prior art we've seen and some others you will see in the coming days.

Now, CalAmp wasn't content just to do its own digging. They wanted to be doubly sure that they were right about this. So in addition to the investigation done by Mr. Chen, who you will hear from in this proceeding, they also went to their patent attorney and asked their patent attorney to try and put together an opinion and determine, if we made this product would we infringe or not? And are these patents valid in light of all the prior art that we've discovered? And you will hear that CalAmp had the understanding, based on the opinion from the attorney, that they didn't infringe these patents or that these patents were invalid.

I know it's a lot of information we're covering just on the first day, so I thank you in advance for your time and commitment to this case. And I urge you to look closely at the evidence we present. We believe that once all the evidence is presented, you will be comfortable in reaching the verdict that the CalAmp devices don't infringe the Omega patents and that if the Omega patents are stretched so far as to read out the control function limitation and cover simply reading of data, then those Omega patents cannot be valid.

Thank you.

THE COURT: Thank you very much.

All right. Ladies and gentlemen, we will recess for the evening. Let me just remind you again not to discuss the case with anyone else, even amongst yourselves, and please refrain from conducting any independent research.

Now, Ms. Armbruster, if you are able to make it with us tomorrow, we would love to have you. If for some reason you just simply cannot carry on call Ana, the jury coordinator who you dealt with previously and let her know and she will advise us accordingly. But certainly the parties selected you because they believe you and your colleagues are well suited to hear this case. If you can make it, we certainly hope you can, but we understand you're dealing with some discomfort right now.

THE JUROR: Thank you.

THE COURT: All right. Thank you, ladies and gentlemen. Have a very good evening. We will be back at 9:00 a.m. tomorrow morning. Have a pleasant evening and drive carefully.

(Jury exits.)

The record should reflect the jury has withdrawn. The parties are present. Please be seated.

Let me just ask you a quick question before we break for the evening.

In terms of advising the jury of the claim construction that's been entered into by the Court, at what point during the trial does counsel anticipate requesting we do so, other than the final instruction?

Because it seems like if we talk about this for a week without anyone hearing it, it may become confusing. If there's a point in time when you think it's best for me to advise them, I'd be interested in hearing your thoughts and also the format that you would like me to use in presenting that information. So perhaps you can discuss it tonight and let me know, unless you already have some thoughts.

MR. GILCHRIST: From the plaintiff's perspective, if I could just sort of think about it. Right now, it seems like it would be best just before the expert comes on, because he'll probably be the one applying it. I would just give the Court's instruction on claims construction.

THE COURT: Any objection to that approach?

MR. KAUTH: No, Your Honor.

THE COURT: All right. So prior to the first expert being called, you will advise -- Mr. Gilchrist, your will be first, and then we will go with the

instruction that's been previously formulated by you all in the final instructions, and I will read that as an instruction along the way.

Do the parties anticipate giving any other mini openings, for lack of a better term, as the evidence moves along? Or do you want to proceed in the traditional way of just calling your witnesses and going from there?

MR. GILCHRIST: We had talked about doing some mini openings before Joel gets into his invalidity. I'm not sure it's necessary. Most of it's been covered. I'd just as soon waive it and power through.

THE COURT: All right.

MR. KAUTH: We'd be fine with that.

THE COURT: That's fine. That's what we'll do. All right. Thank you very much. You can leave your belongings on the table. The counsel coming up for criminal status conferences, they'll move pretty quickly. You can trust them all.

Have a good evening. See you tomorrow.

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Certificate of Reporter

I certify that the foregoing is a correct transcript of the proceeding held in the above-entitled matter.

s/Koretta Stanford

Official Court Reporter
United States District Court
Middle District of Florida Date: April 5, 2016

UNITED STATES DISTRICT COURT

MIDDLE DISTRICT OF FLORIDA

ORLANDO DIVISION

OMEGA PATENTS, LLC,
Plaintiff,
v.
CALAMP CORP.
Defendants.

Case Number 6:13-CV-1950

WEDNESDAY, FEBRUARY 17, 2016, 9:05 A.M.
CIVIL JURY TRIAL - VOLUME II (DAY 2)
BEFORE THE HONORABLE PAUL G. BYRON, AND A JURY
UNITED STATES DISTRICT JUDGE
ORLANDO, FLORIDA

COUNSEL FOR PLAINTIFF:
Brian Gilchrist, Esq.
Ryan Santurri, Esq.

COUNSEL FOR DEFENDANT:
Joel Kauth, Esq.
Eugene Chong, Esq.
Carrie Wozniak, Esq.
Charles Halloran, Esq.

*Proceedings recorded by mechanical stenography
Transcript produced by computer transcription*

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P R O C E E D I N G S

(Jury not present.)

DEPUTY CLERK: Omega Patents, LLC versus CalAmp Corp, defendants, case number 6:13-CV-1950-Orlando-40DAB.

Appearances, please, for the plaintiff.

MR. GILCHRIST: Brian Gilchrist and Ryan Santurri on behalf of plaintiffs.

THE COURT: Good morning.

MR. KAUTH: Good morning, Your Honor.

Joel Kauth, Eugene Chong, Carrie Ann Wozniak, and Charles Halloran for the defendants.

THE COURT: Good morning.

MR. CHONG: Good morning, Your Honor.

THE COURT: All right, counsel. Let me tell you the status of our jury. Ms. Armbruster, who is juror number 2 seated -- as we all know seated up in the top right-hand corner contacted the jury coordinator this morning -- I'm just looking at the e-mail -- stating that she has been up since 4:00 a.m. and is not feeling well. She's waiting to contact her surgeon for his availability and is not well enough to come in this morning.

Obvious from yesterday, as we all saw, that she was in very severe distress. She was actually in

tears when she left, after passing the note up. I give her great credit for being willing to tell us in jury selection that she could push through, but it's obvious that's not possible in light of the oral surgery she had. So it's my intention to excuse her.

Is there any objection by either side?

MR. GILCHRIST: None from the plaintiff.

MR. KAUTH: No objection, Your Honor.

THE COURT: All right. Then, we'll continue on with the seven jurors that we have remaining. It was a good call, counsel, to have eight. And we will get them in, and we will start with your first witness. Are there any matters to take up before we do that?

MR. GILCHRIST: No, Your Honor. I plan on moving for admission of a number of exhibits, but I'd like to do that in front of the jury.

THE COURT: All right. And the joint exhibits, we can all stipulate to admission if you prefer. That way, you don't have to go through the process. We can do that in front of the jury as well.

I also had my law clerk, Ms. Nauman, give you instruction 2.1, the claim construction for the case just so you will have in front of you the instruction that I will be reading at the appropriate time.

All right. Let's have the jury, please.

THE COURT: The exhibits that the plaintiff intends to move into evidence when the jury enters, will there be objection to any of these or are these unopposed?

MR. KAUTH: These are unopposed, Your Honor.

(Jury present.)

THE COURT: The record should reflect the jury is present, and the parties are present as well.

Good morning, ladies and gentlemen.

THE JURY: Good morning.

THE COURT: As you will see, Ms. Armbruster is no longer with us. She will not be participating in the remainder of the trial. She just was not feeling well enough to carry on. We all agreed that she was remarkably stoic in saying to us during jury selection that she could manage her discomfort, but obviously it was too severe so we've excused her from further participation in the case.

Now that we're back for the first time, I'm going to be asking you this question each morning when we reconvene. Have any of you discussed the case with anyone else or amongst yourselves or conducted any independent research? If you have, please raise your hand. There are no affirmative responses. Then, we're ready to go. All right, counsel.

MR. GILCHRIST: Our first witness will be Mr. Ken Flick.

THE COURT: All right.

DEPUTY CLERK: Sir, if you would please step to the witness box and remain standing. If you would please raise your right hand. Do you solemnly swear, under penalty of perjury, to tell the truth, the whole truth, and nothing but the truth, so help you God?

THE WITNESS: Yes, I do.

DEPUTY CLERK: Please take a seat. Please state your name for the record, spelling your last name.

THE WITNESS: Kenneth Flick, F-l-i-c-k.

DEPUTY CLERK: Thank you.

MR. GILCHRIST: And, Your Honor, before I move into testimony, I'd like to move for admission of the following exhibits: Joint Exhibit 1, Joint Exhibit 3, 4, 5 and 6. Joint Exhibit 8, 9, 10, 11, 12, 13, and 14.

THE COURT: All right. Is there any objection to the admission of the exhibits just identified by counsel?

MR. KAUTH: No objection, Your Honor.

THE COURT: Those exhibits are admitted.

MR. GILCHRIST: And I have the following plaintiff's exhibits. Plaintiff's Exhibits 1 through 6, 8 through 12, 15 through 23, 38, 47, 49, 59 and 60, 62

through 66, 73, 88, 90, 99, 100, 104, 105 and 106, 156, 159, 160, and 161.

THE COURT: All right. Any objection to the admission of these exhibits?

MR. KAUTH: No objection, Your Honor.

THE COURT: They are admitted.

All right. When you're ready, sir, you may proceed.

KENNETH FLICK, PLAINTIFF, SWORN

DIRECT EXAMINATION

BY MR. GILCHRIST:

Q Mr. Flick, by whom are you employed?

A Omega Patents.

Q Are you the president of Omega Patents?

A Yes, I am.

Q What is the business of Omega Patents?

A It started off with being the owner of the patents that I came up with, the inventions that I did, and to license them to the other company that I had.

Q In we have in today's proceeding four patents at issue. Are you familiar with those patents?

A Yes, I am.

Q Are you the inventor of those patents?

A Yes, I am.

Q Have you assigned them to Omega Patents, LLC?

A Yes, I have.

Q Can you explain to the Court -- well, what's the general nature of those patents?

A It's related to the vehicle's bus work.

Q And can you explain to the jury how you got involved in vehicle accessories?

A Vehicle accessories started back when I was a kid, still am, but started when I was a kid, approximately 20 years old and I worked at a grocery store. Somebody broke into my car while I was in the store. And my car, I felt was my life to a certain degree. I tore that car apart, put new gauges in the car, redesigning the dash, the instrument panels, putting in consoles inside the car that didn't exist. I mean, I customized the inside of my car very well. And for somebody to break into the car and start ripping out wires underneath the dash to get to my eight-track tape deck really ticked me off. They never got the deck out, but they really did a lot of damage to my car.

Q Now, you said you spent a lot of time customizing. Were you in college at the time?

A No.

Q Did you ever go to college?

A No, I did not.

Q What's the highest level of education you have?

A Senior high school.
Q How did you do in high school?
A I think up to sixth grade, I made nothing but Ds and Fs. And then, above that started getting some Ds and Cs and barely passing each one of the years. In fact, in the elementary school, I actually flunked, and my dad stuck me into summer schools. And if you took summer school classes then you automatically passed, 'cause I have a brother one year behind me and my dad didn't want me to be in the same grade as him and it just would be not a good thing. So that's why my dad was pushing me, you know, forward.
Q Did you have any other type of training?
A Um --
Q A trade school?
A When I was in senior high -- my dad is an aircraft pilot, and he also was a licensed mechanic. So my dad, I guess, in his dreams -- 'cause I was the oldest child -- wanted me to go that route. He knew I had problems, learning disorders, and I couldn't read and write. Spelling, all of that was just disaster, but I was really good with my hands. Everything I did with my hands, I did really good. So he got me into the aviation school, George T. Baker Aviation School in Miami, Florida and which from that school I was able to

learn drafting, electronics, and you're actually working on airplanes from that school. And then, I was making straight A's.
Q Straight A's in the trade school?
A Yes.
Q All right. Bring you back to that car break-in. What did you do in response?
A I went to an electronics store and bought a siren, some relays, an electrical lock switch that you put a key in it and turn it back and forth and wired it all up with the relay so that if you opened up the door the alarm came on and I wired the relay so that the alarm would stay running until your car battery went dead. So that had happened a couple of times, somebody tried breaking into the car. And as soon as they opened the door the alarm came on, they took off. But then the alarm runs until the battery goes dead and I'm inside the store and nobody would come in and say, hey, there's somebody with an alarm going.
Q Was this a kit that you bought?
A No. I bought pieces and stuck it all together.
Q How did you know how to do that?
A From going to the trade school.
Q Did you show your alarm to your friends?
A Yeah. My friends, they liked what I did, except for

the battery going dead. So I knew from trade school different metals bent differently when you put power through it or heat up and then it would warp. So what I had done for the system, I took two pieces of metal and bent them so that they had a little bit of pressure. You had to really play with it a lot to get the right pressure on it and the 12 volts going to the siren draw quite a bit of -- a lot of power.

So these metals would heat up. And as they heated up, they warped. And as soon as they warped they came apart and there was no more 12 volts going to the siren so it would shut down. And then, as it would cool off they'd retouch again and it would just reset my alarm system, but it wasn't running. So that was my first time of ever doing a timer which was, you know, you don't know if it's going to run for 60 seconds or one minute, two minutes, three minutes until it finally bent enough to where it separated.
Q Did you begin to install car alarms for others?
A Yes. My friends had me stick it in their car. Of course, they're concerned with the key lock being in the side of the car and everybody seeing it and that can, like, devaluate your car. And my car, I had a chrome strip that ran across it. So in mine, I rotted out with a grinder the exact size of the hole that I need to

stick the lock through right where the metal was, the chrome trim on the side. So that way you couldn't see it. So the first one I did for my friend -- he had a Ford, and the Ford logo was on the side of the rear panel. And which I told him I would take out the "O" of Ford and stick my lock right in where that was at so when the key wasn't in it, it still looked like a Ford, and you could work it from there.

So that was my first one, and he liked what I had done. Then, it evolved to the manager at the store. I put a system in his car. There were other employees that I had done. And when they brought their cars in for being serviced at the car dealerships, my friends would brag about the alarm that was in the car and then the car dealerships got ahold of me to try and say, hey, can you put in the alarms for us when people were buying a car and they wanted one.
Q And did that turn into a business for you?
A Yes. I bought a generator and stuck it in the back of my car so I could just go out right to people's places and/or to the dealership, pull up my car and turn on the generator and I could work the drill, the grinder, soldering iron, everything right from the car.
Q What was the name of that business?
A Originally it was called -- Auto Boat Alarm is what

we called the alarms.
Q Did you also do boat alarms?
A You know, we had people wanting me to do the boats, but it was very hard to do because of the boat moving up and down, so I was able to find pressure pads so you could stick a pressure pad inside of the boat. If somebody stepped on it, then it made a contact so that would trip the alarm. And then, also took the rope or the chain that attached the boat to the dock, and then I ran wires through it and then back, made a loop, so it was constantly drawing power. And being as you were on the dock, I could use a transformer or power from the street so it never went dead on a battery. And if that loop got broken then it would trip the alarm system. So if anybody tried just disconnecting the boat, immediately the alarm would come on.
Q Did that expand to any other electronics in the field?
A As I was doing everything portable out of my car, people would always say, well, if I got a problem how do I get ahold of you. Well, you've got to get ahold of me at my parents' house 'cause that's where I was living at that exact moment. And they were all referring to you really need a store, and the car dealerships would prefer me have a storefront. So I did open up a

storefront. And with a storefront, I needed more than just the alarms. It really wasn't a lot of business back in 1970, '71 to keep me alive. So I was looking into and did bring in eight-track tape decks and then, like, four years later bringing in CB radios, and I did all the installations of all of that. And I didn't have anybody working for me. It was just me.
Q Where was the storefront?
A This was all in Miami, Florida. Started off in one small storefront and then moved into a shopping mall.
Q And how much time did you spend at the store?
A Twenty-four hours a day, 'cause I lived in the back. As soon as I opened up the store and I brought in all the other stuff, I was 19 years old. And at that time, you had to be 21 years old to be responsible or my dad was responsible for me up to the age of 21. So if I didn't pay somebody or whatever, my dad felt like he was going to get in trouble.
So my dad basically took me to court -- did take me to court, but we settled with the attorney that we had to where they made me of legal age. They had documents done up and given them over to friends, relatives, whatever, to say that I was of sound mind and that I would be on my own. So I had a legal document that everything I was buying and selling was my

responsibility, not my dad's.
But in doing that, then my dad turned around and said, well, being as you're going to be responsible for yourself, you can start paying room and board. And there was no way I could afford to pay the room and board at home when I had the store. So I just moved out, and I just started living in the back of the store.
Q How long did you live in the store?
A Approximately four years. And it was two different stores when I moved from one to another.
Q Did the name eventually change from Auto Boat Alarms?
A Well, Auto Boat Alarm -- as the stuff for eight-track tape decks and CB radios were selling better than what the car alarms were -- the car alarms kind of died down a little bit. For a period of time, I wasn't doing a lot. It was mostly the eight-track tape decks, CB radios, and doing all the installs of it. As soon as it started slowing down and then the alarms started getting popular again, I started putting all this stuff back together again. And the original name I was stuck on was K9 Car Alarms. And then eventually it evolved into Excalibur Car Alarms.
Q We heard in some of the opening statements about a company called Omega Research & Development. Are you

familiar with that?
A Yes.
Q What is that?
A As I was doing so much in the CB radios and the eight tracks and the car alarms, I ended up selling wholesale to other stores that were 25, 50 miles away from me. And that business was getting pretty good where I was spending more time with that. During this time, I had gotten married in 1974.
So my wife turned around and I had her -- she worked for me. That's how I met her. She was working for me. And so she stayed running the store while I just started doing all this wholesale business. And the accountant that I had at the time said, you know, you've got this separate business. You really ought to separate it with a separate company. So then we opened it up as Omega Research & Development.
Q Did you eventually move into the wholesale business?
A Yes. I moved into the wholesale business.
Q And did you move the facility?
A Eventually from Miami doing all three items, CB radios, eight-track tape decks, and the car alarms, my heart was really in the car alarms. And I told my wife that to really distribute good all around the United States, moving to Atlanta was my best bet. And so, my

wife agreed that I could give up the store. I gave up the distribution of the radios and the CB radios and that I was going to focus more on building the car alarms and selling those nationwide.

Q Did you continue to design and innovate in the electronics field?

A That's pretty much all I was doing, 'cause everything was me.

Q How did Omega R & D stay competitive in this field?

A Well, in the beginning, I really didn't have any competitors to amount to anything. It was me and there wasn't stuff out there already to amount to a lot, as far as a car alarm goes. But over the years of me doing my development and building my own stuff, when I also moved to Atlanta I had met some people over in Taiwan, and they said that they would build all this stuff for me. So in Taiwan is where I started building the car alarms. And the guy told me that, hey, whatever I build for you, I would never give it to anybody else, it's always yours, and that didn't quite turn out true. That started about 1982. And by 19-- or in 1981.

By 1985, I all of a sudden found Audiovox has got my exact system or what was my exact system. The guy over in China didn't give away exactly what I was selling at that moment, but he took my older models and turned

around and sold them off to other people that wanted to get in the alarm business. Audiovox wasn't in the car alarm business. Now they were.

And then, another company called -- Directed Electronics, the same thing happened there. While I was in Atlanta and then when I confronted the guy in China about it he was going, well, I didn't think it would ever affect you, because Audiovox was New York. Directed Electronics was California. You know, they were so far away. I go, no, the United States is very small. Just because you live on an island, I live on an island called the United States and got stabbed in the back really bad on that.

Q All right. Your car alarms, can you give the jury the benefit of some of the technology involved in a car alarm system?

A Well, like I said, the beginning stuff was making my own timer, doing shock sensors or a motion sensor to where you stamped out a piece of metal and then had a pendulum going through it with a weight on it and if they moved the car then it would short out and then cause the alarm system to come on.

And then over time that changed to where in talking with engineers over in Taiwan, going from relays and so forth, to where we could go transistorized to where

there's a part called an SCR to where that could replace what the relays were doing. So everything started becoming more electronic.

Q What's an SCR?

A Huh?

Q What's an SCR?

A An SCR is silicon rectifier.

Q What is that?

A It's like a transistor. It's laid out similar to a transistor. But when you've got power on it and when -- and you've got power on another side and then you've got the one lead coming off going to the alarm system. And when -- you've got one side that if you grounded it -- it let the power go through the SCR when you grounded this. And then once the power went through, even if you undid the ground it stayed there until power was removed. You had to remove the power to reset it. And so my timer, I was still using that same timer at the time, bending the metal. And when it would break apart it would reset, just like it would do when I was doing the relays to wire all this up.

Q How were the traditional car alarm systems wired or how were they installed?

A Everything was hard wired to where you ran a wire to each door of the car. You ran a wire to the trunk.

You ran a wire to the hood. And on the car doors, you could tap into the pin switches that were there. But on the trunk a lot of cars didn't have a pin switch so you had to put your own in it, you had to put your own pin switch in the hood, which the was a real pain in the butt because you just couldn't drill a hole and stick one in it, because your hood sat up so far from the ledge of the fender. So you usually had a piece of metal come up and over and stick the pin switch in it. So that was, you know, causing installation time.

And then, in the trunk of the car you'd always go into the little gutter that ran around the back part of the car -- in the trunk and you drilled a hole there and stuck the switch in it and then you got to seal so that way the rain doesn't come in and necessarily go down the pin switch and short it out and also get rain water inside the guy's car.

Q What were some of the innovations that you introduced in the car alarm business?

A As it turned into being all transistorized and circuits, when I was selling 8-track tape decks and CB radios originally they had wires coming right out of the brain unit. And you literally had to solder wires onto it and then run them into the car wherever you needed to go. If you had a defective unit, you had to cut all

those wires you did right down the back of the unit, and then strip the wires and re-solder them. It was a real pain doing this if you ran into a problem.

And then eventually, the eight-track tape deck started coming with its own little 5-pin connector, 4-pin connector, made it real easy to take apart and stick another one in there or upgrade somebody's system.

When I started doing the electronics stuff and the guys over in Taiwan were building it and they started right off with here's all the wires running six inches out and you had to strip them all off, put them all in there. And that was one of the first systems that I did sell that way, complained about it, and I wanted to put the connectors on it. So we found Molex connectors and started doing that.

Well, then that was the first unit that they took and sold to Audiovox was a hard wired system to where the wires were just bare coming out of the unit. And then, of course, after Audiovox started selling it and I've already got one that's got plugs on it, everybody is telling Audiovox, hey, you've got to be like what Omega is, you know, with disconnect on it.

So then, as I would change features and functions of what the units were, the guy over in Taiwan was taking the next generation and giving it off to

Audiovox, and then eventually I found out.

Q What did you do in response to learning that a lot of your features were being used by your competitors?

A Well, at the time, you know, I did not have a lot of money to be able to hire attorneys. I didn't -- I just stayed away from all that. I guess I just was so wrapped up in working 24 hours a day, that's all I was doing. And attorneys and stuff like that scared me. The law would scare me. I just -- you know, let me just keep working.

And I figured if I started changing stuff every, you know, three or four months, keep on advancing what I was doing, then it would be very hard for the other people to catch up to me 'cause it usually took about a year for the stuff to come out. But once it got transistorized, I started to find that within, like, six months, seven months they got my stuff. Or as soon as I made a change, the guy over in Taiwan would hold it and then give it off to somebody else that was there. So --

Q Eventually you decided you were going to use lawyers, right?

A Eventually when I got into the '90s, my sales were really good. Even in the '80s they were really good. I hired my brother-in-law to come to work for me. He was a banker. And so, as a banker, he was very

litigious. Oh, we need to have an attorney firm to represent in case there's a defect and somebody's car burns up. We need to have representation and a response. So we need a response writer, and all this kind of stuff. And I thought he was crazy. I didn't want to spend all this kind of money for this stuff.

And he turned around and after we did interview a bunch of stuff on this, the one company said they had a patent division. So my brother-in-law was telling me about, hey, they got a patent division. You got all these ideas and stuff, you really should start patenting these ideas to protect ourselves 'cause, you know, they're catching up to us too quick on what was going on. So that's when I met my patent attorney, and we got along really good filing the first patent.

Q What was the first group of patents that you sought?

A The first patent I called it ATV, automatic transmitter verification. It also was UTA, which is unauthorized transmitter alert.

Q What's that?

A There was a problem with all the car alarms, all your keyless entries from all the different cars. Take for an example a Ford. If I was a valet attendant, all I need is a Ford remote transmitter from my car or anybody's car. I go buy one. I've got a Ford remote

transmitter. I get in the car while I'm valet parking the car. You give me your keys to park the car. I stick it in the ignition and I turn it eight times within five seconds. The doors will all of a sudden lock, unlock, confirming I am now in a learning mode. I take my Ford remote transmitter, press the button on it, and that Ford just learned my remote transmitter.

Q What does it mean to learn a remote transmitter?

A Well, the code that comes out of the car will learn it, so that way at a later time or right then and there I can sit there and start locking and unlocking your doors from my remote.

Q So, a valet could get a remote to my car and steal it potentially?

A Yes. And it even gets better than that. Because that same one Ford transmitter, every Ford that would get parked, the guy would turn it eight times, the second car learning the same codes. So that means your car knows this code. Your car. Your car. Your car. Thousands of cars could know one remote transmitter.

Q What was your response to this problem?

A When I started getting some phone calls from consumers that were buying the system, my systems, they were telling me that they feel the installer must have had another remote to the car. Because the car, you

usually got it with two remotes. It would learn four. So you have no idea if there's a third remote or a fourth remote, nobody did. So what I did, I came out with a circuit that made the LED light inside the car, because you always had a flashing LED when your alarm was armed. When you turned on your ignition key, that light would blink equal to how many remote transmitters you got.

So if you had three, it would blink three times, stop; three times, stop. And now when an installer does the install, he should be showing the consumer, look, turn on your key, it blinks two times, pauses. Here's the two remotes that work this car. If somebody adds a third one, if you need another one for your mother or your kids or whatever, no problem, we'll add it into the system and that will start blinking three times.

Q How does a gentleman who admittedly got D's and F's through school turn to a patent lawyer and explain his ideas?

A That was a problem. I never took notes. I don't write things down. So I advised them that I didn't do all these different things. And he said no problem, he'll write them all down. So we would sit there for days, and I would explain everything there is. I might jot down, you know, here's a diagram of what I was

doing. He would take all my papers. Whatever we did, he took them back to his office and then came up with all of the stuff that he needed to do for the legalese, finding all the -- doing his searches to find out if it was already there, letting the Patent Office do their searches on whatever there was, but all the documents and everything were theirs.

And then once he got everything all written up, he'd come back and he would have to read everything that was there, because we would be there for days if I had to read it, and I wouldn't even understand what I was reading. So he would read it and then I would ask questions, what do you mean by this and what do you mean by that. And it may have been, hey, the word controller, what's a controller? I don't know what a controller is. I know it is a brain box.

But he would explain all these different things at that moment and go through every one of the claims. And we'd get it all worked out to where, yes, that's everything that I was saying it was. And then I'd have to sign a document stating that what that patent is, is what I agreed to and I understood at that moment.

Q Were you awarded patents for your ATV idea?

A Yes, I was.

Q How many?

A There's -- on the ATV, I think there's just one. I think there might be about eight of them, 'cause they were in different -- for the unauthorized transmitter alert. How many remotes were there. Another one for not only doing the remote transmitter, but you could have the same problem out of the keys, 'cause your key might have a bullet in it or transponder inside of it so when you stuck it in, but the car could learn more than what you were given when you bought the car. So we filed separate patents for using transponders stuck into the car for a key.

Another one would be one with contacts, physical contact, which would be like on the Ford with a bullet that's in the key. So you actually made contact and then there's a current that goes through and that -- there's a resistor that's inside there so it reads that resistor load. So that was your ignition kill circuit so somebody couldn't steal your car if they didn't have the right key with the right bullet in it or the right transponder.

Q All right. I want to move you forward a little bit and bring you to a Jeep Cherokee. You sat through my opening statement. Do you recall having a Jeep Cherokee in your facility?

A Yes.

Q Can you explain to the jury how that came about and how the Cherokee caused problems as far as your business?

A All right. Being as selling -- building the system and then selling it nationwide, I'm not nationwide to do the installs. You got your installers out there. The stereo shops got into the car alarm business. And when they were doing the installs they would always call me to turn and say, hey, I ran into a problem with this car. How do I get around it? So I'd have to turn around and sometimes go rent cars that were that, bring them back to the shop and go underneath the dash and sit there and figure out exactly how to get around the problems that they were talking about.

Q And so, a Jeep Cherokee came up as a problem car?

A Yeah. Jeep Cherokee came up as a problem that people were complaining that the door locks were working differently. They didn't understand it. And it was working differently because it was working from code. So it was one of the first cars that did door locks using codes.

But when it sent the code off, it send it into the door mechanism itself. So each door had a computer wire running into it and which we had to turn around -- I had to come up with a way of, one, taking apart a door panel. And then you had to wire up two relays in

combination to get around that circuitry. And we actually had to go to the switch, your manual switch on the door. And we actually just made the two relays work like your two switches that were in the car. And you had to do that on every door to do the door locks.

And through the upper '80s and some of the -- in the '90s to do the door locks a lot of times just took a negative pulse. You found one wire that ran to all the different door lock mechanisms. If you grounded it, it made it lock. It you ground this other wire, it made it unlock. So we never had to take apart door panels, none of that, and now we did. So I needed to come up with a way of tapping on to that computer.

Q And did you?

A Yes. I found a company in Detroit that was making a box. And you attach it to the bus of the car and you took your laptop and connected it to it. And I had a guy working for me that was doing all my computer stuff, doing all my artwork and layouts, manuals, so he knew computers really good. So I told him, I'll get the box. You hook it all up and make the computer work so we can use the laptop out in the car.

Well, when I was telling some of the other electrical guys that I got inside my office, tech guys, you know, about this idea of the code working the cars

and I think that's where the future's going to be, they thought I was crazy. And when I got this box in, my computer guy hooked it all up, we got inside it, the Jeep Cherokee that we rented, and we sat there and we would have to -- the program that came along with that, you downloaded it into your computer, would allow us to see all the codes running across the screen that was going on in that car. But it also had a program in it to where I could stop, still frame what was on the screen, and I could also type something that was on the keyboard and say send, and it would sent it into that data bus.

So what we'd have to do is you saw all the stuff running on your screen and you would hit the lock button and immediately still frame. And odds are within about 10 or 15 codes that were on your screen, one of those would have been the lock code. So we actually sat there and typed in each one of those codes we saw on the screen until all of a sudden the doors locked. And then, we did the same thing with the unlock. And then, we did the same thing with honking the horn and then we did the same thing turning on the flashers. And we could turn around and sit there and write all these different codes down.

We could actually sit there and send a code, honk

the horn. Send a code -- and I showed this with the rest of the tech guys that I had, then they became believers that that is incredible to sit there with a laptop and be able to honk the horn, flash the lights, lock the driver's door by itself or unlock all the doors, roll up and down the windows that were in the car. That was just very impressive to be able to show that.

Q And that was all within the Jeep Cherokee, right?

A That was all within the Jeep Cherokee.

Q Did you envision where that type of technology was going to take your business?

A Yeah.

Q Can you explain what your thoughts were at the time?

A I knew -- well, because of my experience putting in the radios, I used to do the installs first, not only with the eight tracks, was just AM radios, putting them in the cars. And then it became FM radios and then FM stereos. Then it became FM stereo with an eight-track, then a cassette. And the car manufacturers, as they were taking what the aftermarket world was doing and thought, hey, people want that, aftermarket proved it, they'd stick it in the car, take it away from the aftermarket.

Well, the car manufacturers started with changing

the dash panels to where now when you stuck a radio in the car, the knob's up here, this is down here, you'd have to have a separate radio for all the different cars. And then companies would make converter plates trying to -- so they can buy one radio and it would work for these cars and buy this converter plate and something else, but your inventory just started going crazy.

Well, with the car alarm business, which I liked, it was -- I got an alarm. It did these functions. Here's another alarm, did an upgrade, did a little more functions. But that alarm would fit in any car you wanted to put it in, and you hard wired it. And you couldn't say that eventually with eight-track tape decks and the rest of the stuff that was going on, it took too much inventory. My inventory was very simple.

Well, once you start getting into computers -- and I know how devious car manufacturers are -- I thought, hey, they're going to come out with every car with different codes. Ford's going to want theirs. Chrysler will want theirs, whatever happens down the line. So I want an alarm that's going to know all these different cars. I don't want an alarm for every car that was going on.

So the first data bus stuff that I had filed was

based on that, that the alarm system would end up knowing more than one car's codes or it could learn more than one car's codes. You know, either you could stick the alarm in the car and have it learn when you did lock/unlock and you put it in a learn mode or you may take the unit and go to a computer and select a car that you want, download the codes into it, now go put it in the car, but your inventory was one SKU that you could use in all these different vehicles. And it may be that the unit itself knows -- you know, whatever car codes we reversed engineered.

Because the car manufacturer isn't going, hey, here's all the codes. We're going to give them to you. Uh-uh, they're hiding them. They ain't letting you know nothing. So everything we did, we learned how to grab these codes for the lock and the unlock out of the Jeep is what we had to start doing with all the car manufacturers.

We'd sit there for days, weeks, years just constantly learning these codes and then adding it to the index that was inside of the data bus module so that, you know, trying to make it as simple, because a lot of dealers didn't like the idea of I've got to get a computer, I've got to download into it, and that scared them. They just wanted a box. I want to plug it in,

and want it to work.

So, in turn, we stuck all the codes inside of the unit. And when you plugged it into to the car, it would turn around and read the VIN number and kind of know what car that it is and what codes to use to start operating that car.

Q But before you turned that into a product and had all those codes, did you have a meeting with your patent lawyer?

A Yes, I did.

Q And did he ask you about the future of your business?

A Yes. When we did learn --

Q Can you explain to the jury what happened?

A After we did the first patent, he was wanting to know what other patents he could file for me. And I go, I don't know. I never talked about myself. I just worked, and I just kept things to myself. I didn't tell everybody everything.

And my patent attorney turned around and said, well, what are you going to do five years from now. And I go, wow, I can tell you what I'm going to do five years from now, and I explained all this stuff with what I was going to do on the bus and how to put the codes into the unit and all the different combinations of different

things so that I had a sellable product to be able to compete. All the ideas that I just told you, I never told anybody. Even the guy that did the work, the data bus module first that hooked up to the laptop that we were getting the codes out of the car, I never even told him all of my ideas. I just turned around and said, wow, this is what I was talking about that the world is going to go this way and convinced everybody that way. But I always just kept things to myself.

Q Did you disclose to your patent attorney this idea that one unit should have ability to use through multiple vehicles?

A Yes.

Q And did he take that information down?

A Yes, he did.

Q Did he ask you about how you're going to go about doing it?

A Yes. He asked me how I would do it, how I would get the codes, how I would build the merchandise to where I got engineers over in Taiwan that were electrical guys. So if I got codes for them and sent them codes, they'd be able to copy it or send the guy over that he could read things so that we got things mastered. I mean, we had ways of getting everything built.

Q Did he file applications for you for these ideas on

how to use the data bus for your business?

A Yes.

Q Now, we heard yesterday that you had never actually produced a product using a data bus. Is that accurate?

A No, it's not.

Q Can you explain to the jury the products that you came out that utilized some of your innovative ideas?

A All right. In about 2002 is when I actually came out -- actually had a sellable product. It was a data bus module. And that module would -- of course, the very first one would have been working the Jeep Cherokee. Some of the GM cars had codes in it. And to be able to select what car codes to use we used dip switches on the unit.

We weren't doing -- reading the VIN number, coming back, because we hadn't quite gotten to that point to develop that, but it was all in the patents for what I was going to do. But the easiest step was just use the dip switches to be able to select what car you want.

Q Was there a product that came out later that utilized more of the data bus codes?

A Yeah. As things evolved it became more and more cars were put into the device. And you couldn't have a dip switch that had -- you know, here's 50 dip switches going across there. It would cost you a fortune.

So then we had no choice but to start doing the development of it. It needed to know how to do it on its own.
Q And did you have a product that knew how to do it on its own?
A Yes, we did.
Q Okay. Now, you said you met with your patent attorney, and you gave him all these ideas. Did this turn into many different applications?
A Yes.
Q Why is that?
A Well, the original patents of the data bus stuff all started in 1996. With my brother-in-law and -- well, I actually met with my attorneys and filed the first patents in '95. So in '95, my brother-in-law was working for him who told me to do this with the attorney and file these patents.
One of his chores that I stuck on him was doing GPS tracking. And I told him that I think that's where the next evolution is going to come in from car alarms, 'cause we'd been doing car alarms for so many years that somewhere along the line, it's going to fade down and all the cars will have it.
Q Well, hold on, Mr. Flick. Now you've taken us a little different direction. You talk about a tracker.

Can you explain to the jury what a tracker is?
A GPS tracking unit to where you're able to know where your car is to where you could get on the Internet and be able to look at or go to a monitoring station, call your monitoring station and say, hey, where is my car and they would be able to tell you 'cause of the GPS coordinates.
Q How does it work?
A It would have a GPS receiver inside of it and a cellular mechanism inside of it. And the GPS would be able to see the satellite, figure out its -- the latitude and longitudes and turn around and send off by cellular to a monitoring station who, in turn, would read that and then show a map on the screen and that's where your car would be located.
Q Did you develop the tracker product?
A Yes.
Q What was the name of that?
A The first tracker unit that we built was called a GPS 2000.
Q And what year was that?
A It actually got -- being sold the first ones in 2001 so I got hassled a lot for calling it a GPS 2000 and not a 2001.
Q What did your GPS 2000 do?

A The GPS 2000, being as I was the first phase of what there was, and I figured I would have data bus modules that you could add to it. And I didn't build data bus codes into it at that time because of the expense. But on the GPS 2000, it did a lot of unique things that no one else was doing, and we filed quite a bit of patents on what was in that.
Q But that didn't connect to the bus?
A That one did not connect to the bus.
Q So, in your mind, you sort of separate tracker ideas from data bus ideas?
A Well, I wanted to come out with a tracking unit as soon as I could. If I turned around and said, oh, I've got to wait until I can do all these other things, you could be sitting there forever before you came out with your product. So I needed to make sure that the GPS unit was working correctly, the cellular was working correctly, 'cause there was a lot more technical stuff when you want to get into using the cellular radios, because the codes that you were sending over the network for the location and so forth, what we were doing, we were using a control channel. It wasn't using the voice channel. And so, there were two companies that had patents on that and we could choose between those two companies to hire for when you stuck it in the car it

had their phone number in it that went to their place and they decided what was going on. So there was just so many areas of having problems.
And we did have the problems. I mean, you put them in the car, and they'd go through areas and the unit would not work. Well, gee whiz, you've got cellular, but the control channel people that had those patents had to put special boxes on the towers. Well, if those boxes weren't working and, then, it wasn't working my stuff till somebody complained to say it wasn't working, then they'd go out there and reset it.
Q How many patents have issued in your name?
A As me as the single inventor there's over -- there should be right at 155, as of today, and there's still more coming.
Q How many of those patents are related, in your mind, to this data bus ideas?
A There's -- right now as of today, there is probably 50-some odd that are related to the bus.
Q And how many are related to these -- in your mind -- the trackers?
A Well, a lot of it could apply to it 'cause we do mention the trackers being stuck in there. I think there was probably about four patents that are really -- starts off with a vehicle tracking unit with, you know,

connecting to the vehicle's bus running throughout the car.
Q So there's some cross over?
A Yeah. There's some cross over.
Q I want you to take a look at Joint Exhibits in front of you, your patents. Joint Exhibit 1, you see it?
A This one?
Q Nope. Yes, sir.
A Like my wife, I get it wrong.
Q All right. What is Joint Exhibit 1?
A Thirty-one?
Q Joint Exhibit 1.
A This one?
Q Yes, sir.
A These are the -- looks like the patents that are at issue in this case.
Q Well, it's one of the patents. Can you identify which one it is?
A This one is the '876.
Q And is that one of your patents?
A Yes.
Q Is that one you've assigned to Omega Patents, LLC?
A Yes.
Q Is that one where the lawyer has to read it to you and explain it to you?

A Yes.
Q If I asked you to go through all the specifications here today, would you be able to do so within the next week or so?
A No.
Q Okay.
A Not even in a month.
Q Can you identify the next patent that's at issue in this case?
A This one's the '885.
Q And is that your patent?
A Yes, it is.
Q Is that also assigned to the plaintiff?
A Yes, it is.
Q And what's the next patent at issue in this case? And what Joint Exhibit number is that?
A Three.
Q Okay. What?
DEPUTY CLERK: Mr. Flick, can you pull the microphone towards you?
THE WITNESS: All right.
DEPUTY CLERK: Thank you.
BY MR. GILCHRIST:
Q What exhibit number do you have now?
A Four.

Q Joint Exhibit 4. And what is Joint Exhibit 4?
A The '727.
Q Is that the patent at issue in this case?
A Yes, it is.
Q Are you the inventor?
A Yes, I am.
Q Is Omega Patents, LLC the assignee?
A Yes, they are.
Q And the final patent that we're here today about is Joint Exhibit what?
A Five.
Q What patent is that?
A '278.
Q Is that the patent that you are named as the inventor?
A Yes, I am.
Q Have you assigned it to your company, Omega Patents, LLC?
A Yes, I did.
Q We talked a little about what Omega Patents is. Can you explain to the jury how Omega Patents, LLC came to be?
A In around, I guess, it was 2002, I found somebody selling -- or building data bus modules and which we filed a suit and it took awhile and they came to my

office with their attorney and also the electrical engineer who was actually building the modules. And in my office, they were wanting to talk about doing a license for the patents, and which I was against doing a license for the patents.

I was preaching on the fact that when they came there that I learned that, gee whiz, you got a manufacturer who built the modules and is only selling them to you. And the guy who is building them is the guy who is actually doing all the reverse engineering and getting them and selling them to you. And, in turn, I'm looking for the same thing. I just want you to sell me, and I've got the national distribution of what there was. And so, I really didn't want to do it.

And at that time, they started revealing more to me what the sales were of what they had been doing, because Canada -- I was totally oblivious to what was going on in Canada. But Canada sales were huge, I mean, with all the cold weather and stuff up there, and I mostly sold in the United States.

When I went home -- 'cause I worked 24 hours a day. I don't know how I had four kids. But I went home and told my wife what was going on. They were looking for a license. I didn't want to do it. I just want to keep working.

And my wife goes, you know, no, somewhere along the line you've got to stop this, because your stress is killing you. And I already had a known heart problem that I was already going to the doctor twice a week getting IVs twice a week. And she's going, what's wrong with doing a license. You know, just get over the fact that you're not going to be the only person in the world to be doing this. So, I took my wife's advice. The next day when we met back in my office again, I said, all right, if I turn around and did license you, I would want to get approximately $10 apiece for them. Well, that pissed them off.

And I said, well, I'm already building the modules, and they cost $4.32 to build the module. I'm selling them for $20. You're selling them for $20. Actually, $20.50. I said, there's a massive profit here. So, why would I want to give up that kind of profit ratio when I'm selling other items and I'm only making 30, 40 percent when I'm, you know, tripling my money. This is ridiculous.

And so, $10 would put it at 15. They get to make $5. Well, that didn't settle with them very well. So, I brought in my sales people, you know, into the meeting. And I said, I want you guys to represent Omega R & D, because you guys are in the sales and so forth,

'cause whatever I do with them, I'm going to have to do with you guys or do it myself.

Q At this time is Omega R & D still an ongoing business?

A Yes.

Q Still a distributor?

A Yes. Omega R & D was my company that we still manufactured the car alarms, tracking units, and sold them worldwide at that time.

Q What type of sales volume was Omega R & D doing?

A Right at $33 million a year.

Q So, sorry to get you off track, but you were telling the jury how you went about to form Omega Patents, LLC.

A When I had said the $10, my guys even turned and said, wait a minute, we can't be showing on our books the -- 'cause they got commissions. So they're going, that's too much.

Q Now, wait. I hate to interrupt you again. Are you suggesting that you were going to charge your own company a license fee?

A Yes.

Q Why is that?

A Because if I was going to start doing -- to do the licensing and I own those patents, then it needed to start something separate. When I ended up talking to my

wife about doing the licensing, she was just going, it would be a lot easier in life, you know, to do that and you can stay involved with the technical guys or whatever, but slowly get out of the nightmare of all these employees that I had of doing this and I could just do it myself and that's what I liked to do. I liked, to a certain degree, working by myself. I do very good at it. So, you know, if I did this, I would have to start charging a fee to the company, as well as a fee to them so that way it was fair. And --

Q Did you form a new company to hold all those patents?

A Well, the Omega R & D -- excuse me -- the Omega Patents, I think, just previous to that situation, I had opened up Omega Patents. I think at advice of the counsel just saying there's so many patents or whatever, if you were to ever sell your Omega R & D, you know, there could be an argument that, oh, they get the patents, because I'm listed as the inventor and they belong to me personally. So it would be a lot better to separate it completely with a corporation, so that's what I had done, probably like the year previous.

Q Okay. If you will look at Plaintiff's Exhibit number 156, please.

A That's this?

Q In this stack, sir.

A Oh, 156 right here.

MR. GILCHRIST: Nancy, do you have the screen on? Thank you.

BY MR. GILCHRIST:

Q Can you identify what Exhibit number 156 is?

A I guess something from the Patent Office.

Q Okay. Is it your assignment? You can look at the hard copy, help us identify it.

A Yes.

Q Do you see your signature?

A Yes.

Q And can you tell the jury what it is?

A This is the document where I assigned the patent over to -- assigned the patent that was personally mine over to Omega Patents.

Q And that's the plaintiff in this case?

A Yes.

Q All right. And you were explaining how you decided to go about the process or you made the decision that you would license it. Can you explain to the jury how you arrived at the first licenses? Well, first of all, who were the first licensees?

A The actual first licensee would have been Trilogix, who I had that lawsuit with as far as actually license

-- well, no. Licensing to Omega Research & Development would have been the first one in which, when I separated the patents to Omega Patents -- gets confusing -- Omega Patents, when I opened that up, I licensed Omega R & D, which is mine, the patents. And the fee was in exchange for Omega R & D paying all of my expenses for the patents, because it cost money to file the patents. It cost money to keep them alive in the Patent Office. If there was any litigation, they would pay for it. And then, we got into the litigation. And now, Omega Research & Development was paying for this litigation of the first fight.

Q That was Trilogix?

A That was with Trilogix.

Q If you will pull out of your stack Exhibit number 97. Do you recognize Plaintiff's Exhibit number 97?

A Yes.

Q Can you tell the jury what Plaintiff's Exhibit 97 is?

A It's the license agreement with Omega Research & Development and Omega Patents.

Q Essentially, a license agreement with your company for the patents that you personally held that became Omega Patents, LLC?

A Yes.

Q How much did you charge Omega R & D?

A What got worked out with my own salespeople saying it was fair, I got whittled down to $5 on the unit. And then -- for the first patent that would be used. And then when you used the second data bus patent into it, it was going to be 50 cents extra. Then, if you used a third patent, it was 25 cents extra. And if you were doing things that were related to remote starting the car, that was another fee, 'cause remote starting the car was one of the key functions.

Q Do you recognize your signature on Exhibit number 96? I'm sorry, 97? I'm sorry, you have one that's executed?

A Yes.

Q Just couldn't find it?

A I don't see the signature on it.

Q Now let's move on to Trilogix. Who is Trilogix?

A Trilogix was a company in Canada who hired Bomar in Canada to make the data bus modules.

Q And they were the ones that approached you and said we want to have a license?

A Yes.

Q And if you will pull out Plaintiff's Exhibit number 103. Do you recognize Plaintiff's Exhibit number 103?

A Yes. This is the license with Trilogix.

Q So I take it, you did enter a license with Trilogix?

A Yes, I did.

Q Do you recognize your signature on 103?

A Yes, and I initialized every page.

Q How much did you agree with Trilogix to license your patents for?

A The same as what I just discussed, because that's how I came up with the fee to start charging Omega R & D, myself, the same money that was being done.

Q Is there a requirement in your license agreement that Trilogix mark their product?

A Yes.

Q Can you explain to the jury what marking is?

A The product needed to be marked with what patents that applied to that product. And you could put the markings in the owner manual. You could stick it into the box when it came in, list them all on the brain case as part of your mold.

MR. GILCHRIST: Your Honor, I'd move for admission of Plaintiff's Exhibit number 97 and 103.

THE COURT: All right. Any objection?

MR. KAUTH: We have an objection to 97, Your Honor.

THE COURT: And the objection.

MR. KAUTH: Relevance and also authenticity.

This is an unsigned agreement.

THE COURT: All right.

And as to 103, is there an objection?

MR. KAUTH: No objection to 103, Your Honor.

THE COURT: 103 is admitted, without objection. And 97 is admitted over objection.

BY MR. GILCHRIST:

Q And if we could look at 103, and that's the Trilogix agreement.

A All right.

Q Is there a marking requirement under the agreement in Section 7-A?

A Yes, it is.

Q And that's a requirement that your licensee puts your product -- your patent number's on their product?

A Yes.

Q Why is that?

A That's -- if I wanted to be able to -- if somebody was to copy the product, that gives public knowledge of the patents that are out there.

Q It warns other people about your patents?

A Yes.

Q And there's another interesting provision, 6-D. Can you look at that?

A Yes.

Q What is 6-D in your mind?
A They balked at first about this particular one, but I held my grounds. One, if they didn't have a license from me and I stopped them, their business profile changes to something else. If I give you a license, you're going to be doing the research and stuff on the data bus and make improvements, just like I do. I'm making improvements on what goes on.
So, in turn, whatever patents or ideas that you come up with, they belong to me. And that way, if you have ideas or problems or whatever, I really want you to talk to me so we can work this all out and get a patent filed correctly on what was going on. But if you did file it and you wanted to hide behind, not tell me about it and you filed your own patent, the patent is mine. I'm going to have it transferred to me.
Q So as part of your license agreement, they had to provide all their innovations or improvements to your ideas to you or to Omega Patents?
A Yes.
Q And did you have a level of trust with Trilogix?
A Yes, I did.
Q Result of -- well, you had to sue them. Why would you have a level of trust with them?
A Well, most of the time you're not going to get

somebody to take you seriously until you sued them, so it was after you did a couple of the first lawsuits and then everybody else starts going, I want a license, I want a license, and they're willing to talk to you, 'cause they know you're not going to be a pushover.
Q Are you familiar with the group known as Autostart?
A Yes.
Q Can you pull Plaintiff's Exhibit number 69. What is Exhibit 69?
A Is for a company that I licensed called 150031, which happens to be Autostart.
Q And it's a license Omega Patents entered into with Autostart?
A Yes, I did.
MR. GILCHRIST: I'd move for admission of Plaintiff's Exhibit 69.
MR. KAUTH: No objection, Your Honor.
THE COURT: 69 is admitted.
BY MR. GILCHRIST:
Q How did you license -- how did you come about licensing Autostart?
A After the conversations with Trilogix, they turned around and gave me a call saying --
Q They being whom?
A Autostart was doing the same thing. They told me

that they were building data bus modules themselves.
Q And they're also a Canadian company?
A Also a Canadian company.
Q And did you have to sue Autostart?
A No, I didn't.
Q They came to you?
A Yes.
Q And what type of financial arrangement did you reach with Autostart?
A I gave the exact same arrangement that I gave to Trilogix to them.
Q And when you talk about giving the license, how many patents -- how many of your patents are you licensing?
A Thirteen. At that time, there were 13 data bus patents.
Q And you have a schedule on your license agreement that lists all those patents?
A Yes.
Q And you add it to them as new patents came about?
A Yes.
Q Is that the way you generally tried to license these data bus patents?
A Yes. And that's what -- from the first agreement, that's kind of what they were saying that, you know, if we got to sit down and do this every time you come out

with another patent to be added to it, we don't want to sit down and have to be negotiating and then you're adding more money, adding more money, adding more money. Let's just put it in there to where it's 25 cents for every one thereafter, and then whatever you've got it will be a part of the whole package.
Q How does that affect your accounting and making sure that your licensees are doing what they're supposed to be doing?
A Well, there's a provision in here that they had to send me samples of what they've got so that way I could check it out and make sure that I'm getting -- collecting the right royalties on it.
Q Did your license with Autostart also include the marking requirement?
A Yes, it did.
Q Did it include that innovation clause?
A Yes, it did.
Q Could you pull number 86, Plaintiff's Exhibit 86. Do you recognize Plaintiff's Exhibit number 86?
A Yes.
Q What is it?
A It's a license that I gave to Automotive Data Solutions.
MR. GILCHRIST: I'd move for admission of

Plaintiff's Exhibit number 86.
MR. KAUTH: No objection.
THE COURT: 86 is admitted.
BY MR. GILCHRIST:
Q How did this group obtain a license?
A Well, the individual that owned the company left one of the companies that I had licensed, Fortin. So he was the main sales manager at Fortin selling them data bus modules. He opened up his own company and started building the data bus modules.
Q Did you have an identical license?
A Well, at first there's a problem that I already had three licensees and I was not licensing every Tom, Dick and Harry that was out there. I wanted to make sure that I'm licensing people that are innovative, they're honest, and I'm not going to have a problem. And I felt that the three licensees that I already had in Canada was more than enough to cover Canada. In fact, Omega R & D started purchasing from the guys up there, so everything was just fine with the three. There was no need. And I told Frank -- he's the main owner -- that I can't give him a license. You need to go work through some of the other licensees I got, and you shouldn't have left the company that you were with. So what he did is he went over to Autostart and got Autostart to

be his partner. So now that was two people owning this company.
Then, he also went over to one of the big retailers that was in Canada and got him as a partner, so now there's three partners in ADS. And I told him, I say, okay, you know, but you're going to have to run everything through Astroflex, and that wasn't an issue.
And so eventually, it got to where instead of Astroflex sending me the royalty money for what was going on here, he finally just said I'm going to stop completely, transfer my license agreement over to ADS. So they stopped. ADS continued. I still got three licensees. So at least my licensees are being protected, that I'm not licensing every Tom, Dick, and Harry, 'cause if I did there would be no profit. These guys got to make profit, because it costs a lot of money to sit there and reverse engineer these cars and figure out all this stuff. And I knew it took a lot of money and a lot of time. And I know that if you start licensing everybody, and then everybody's got to race to the bottom for -- there's no profit.
Q If you will turn next to Exhibit number 92, Plaintiff's Exhibit 92. Do you recognize Plaintiff's Exhibit 92?
A Fortin Auto Radio.

Q Is that a license agreement?
A Yes, it is.
Q Entered into between Fortin and Omega Patents?
A Yes, it is.
MR. GILCHRIST: Move for admission of Plaintiff's Exhibit 92.
MR. KAUTH: No objection.
THE COURT: 92 is admitted.
BY MR. GILCHRIST:
Q Did you license Fortin?
A Yes, I did.
Q Did they have a marking requirement?
A Yes, they did.
Q Did they have that innovation paragraph?
A Yes, they did.
Q Are they still a licensee?
A Yes, they are.
Q If you will next pull Plaintiff's Exhibit number 85. Do you recognize Exhibit 85?
A Yes, a license agreement.
Q Between whom?
A Audiovox and Omega Patents.
MR. GILCHRIST: Move for admission of Exhibit number 85.
THE COURT: Any objection?

MR. KAUTH: No objection, Your Honor.
THE COURT: 85 is admitted.
BY MR. GILCHRIST:
Q Who is Audiovox?
A Audiovox is a very large corporation in the United States with, at the time, probably over a billion dollars a year in sales.
Q Are they known by another name now?
A Now they're known as Voxx, V-o-x-x.
Q Is that the group that moved to Florida recently?
A Yes.
Q How did Voxx or Audiovox become a licensee?
A Audiovox -- I've known the owners of Audiovox for about 20 years. And after the original litigation stuff with Trilogix, Pat Lavelle had given me a call saying, hey, I know you've got these other patents for valet switches, LED lights up in the window. We'd like to have a license underneath that. So we did a license agreement for those.
And then, he turned around and said, well, we also are doing the GPS tracking and which we're using some of the features on your patents on that. I need a license for that. So I ended up giving him a separate license for the tracking stuff.
And then, he -- on the data bus stuff, he gave me a

call and he told me it was very obvious that, you know, data bus is where the future is and he needed to start building his own stuff, being as he was already doing the car alarms and the rest of it. And the fact that I had a litigation going on with Directed Electronics at the time, there were three big people in the United States selling the most car alarms, millions of them, which was Audiovox, Directed Electronics, and Omega R&D.

While Omega R & D has got the license for doing the data bus stuff, Directed Electronics was fighting to get a license. And so, Pat Lavelle knew that. And he turned around and said, if you give the license over to Directed Electronics, as friends you've got to see -- you can't keep me out there hanging. It would only be right to give him a license, and that's what we did. So, Audiovox got a license right after we settled the situation with Directed Electronics.

Q You also indicated that Audiovox or Voxx took a license for what you characterized as the tracker patents, right?

A Yes.

Q Can you look at Plaintiff's Exhibit number 141. What is Exhibit 141?

A A license agreement.

Q Between?

A Audiovox and Omega Patents.

MR. GILCHRIST: Move for admission of Plaintiff's Exhibit number 141.

THE COURT: Any objection?

MR. KAUTH: No objection, Your Honor.

THE COURT: 141 is admitted.

BY MR. GILCHRIST:

Q And is that the tracker patent license?

A Yes, it is.

Q You mentioned a minute ago about when you were talking with Audiovox about Directed Electronics. Who is Directed Electronics?

A Directed Electronics is in California, which is the company that I had mentioned back in the '80s was getting their very first alarms out of my manufacturing guy over in Taiwan. Audiovox did the same thing. And I really should have been really ticked and not even wanting to work with either one of them for what had happened. But, you know, bygones be bygones, and you move on in life.

Q Well, you didn't exactly move on with DEI. You had to bring a lawsuit, right?

A Yes.

Q And they fought you along the way?

A Yes.

Q Where was that lawsuit pending?

A Here in Orlando.

Q Did it involve any of the patents that we're here about today?

A Yes.

Q The '885?

A Yes.

Q What became of that lawsuit?

A That lawsuit's running similar to this one here. They start off with --

Q No, hold it. I just want you to get to the end.

A All right.

Q The jury doesn't want to have two trials today.

A Oh, okay.

Q So what happened after a result of the DEI lawsuit?

A The DEI lawsuit ended up with the willful intent. The Court said I did not have to give him the license. And we got an injunction on their product. And so that pissed off DEI. And so, even filing an appeal, I still got the injunction to deal with.

So DEI -- the president gave me a call and said, hey, I'm willing to make you whole on everything that there is, and he paid me eight times what the jury awarded to turn around and make all this go into the past. And I said, well, that ain't quite good enough,

unless I got a personal promise you're not going to make my life a living hell, like what you've already been doing, that you're going to be aboveboard and honest with what you're doing, 'cause I don't wanna be constantly fighting over everything. And he says, well, in order not to fight over everything, change your royalty rate. And I said, okay, what are you talking about?

He's going, life will be a lot simpler, so we don't got to fight, if you just make it a flat line five bucks apiece. Forget the 50 cents for the second patent, the 25 cents for each one after. You've got to monitor what's in it, what's not. We've got to do the same thing. We'll constantly be at each other's throats. Just make it five bucks, whatever's in your whole package.

And I said, well, I have a favored nations clause along with all the other licensees that I've got. So what I do for you, I've got to do for them. The rest of my licensees totally agreed that would make our lives a lot simpler. And I was already doing pretty good at the royalty rates. So I didn't mind giving up that part of it.

So that was the beginning of the royalty rates being five dollars for the whole package of what there was.

You can use one or you can use 20 of the patents, whatever that you want to do. And this is all going back into, you know, all my licensees. I haven't lost any of them. They're all making very good money, very good profit. They're very happy with having the protection of these patents. And that's partly why I'm here today, 'cause I got to protect the patents, 'cause they're stepping on some of my licensees' toes and I've got to defend the patents.

Q Did you eventually enter into an agreement with DEI?

A Yes. I ended up entering into the agreement. And for the last, I guess, almost ten years of them -- yeah, I'd say right around ten years, almost ten years that they've been a licensee I've had zero problems. The check comes in on time. I've got no arguments. Everything's been fine.

Q Can you pull up plaintiff's Exhibit number 96. Do you recognize Plaintiff's Exhibit number 96 as the DEI settlement and license agreement?

A Yes.

Q That's the one you entered into on behalf of Omega Patents, LLC?

A Yes, I did.

MR. GILCHRIST: Move for admission of Plaintiff's Exhibit 96.

MR. KAUTH: No objection.

THE COURT: 96 is admitted.

BY MR. GILCHRIST:

Q If you can pull up Plaintiff's Exhibit number 84. Do you recognize Plaintiff's Exhibit number 84?

A Yes.

Q What is 84?

A This is Directed Electronics also of Canada, a separate corporation.

Q Also known as Astroflex?

A Yes, 'cause they purchased Astroflex.

Q Is that another license agreement?

A Yes.

Q By this time after the DEI case, did you open up your licensing to more people?

A No. On the data bus stuff it's been pretty much the same people unless I found somebody who was building something that was unique that did not -- it was not the same product that my other licensees were doing. It didn't go into the same cars as what they were doing. So there are other people that I have run into along the line that were doing specialized, like with a Mercedes, a guy doing a Mercedes remote car starter, all using the bus, none of my licensees had a unit that worked in the Mercedes.

MR. GILCHRIST: All right. Move for admission of Plaintiff's Exhibit 84.

MR. KAUTH: No objection, Your Honor.

THE COURT: 84 is admitted.

BY MR. GILCHRIST:

Q If you would please pull Plaintiff's Exhibit number 81. Do you recognize Plaintiff's Exhibit number 81?

A Yes.

Q What is Exhibit 81?

A It's an agreement with a company called Accele.

Q Between Omega Patents?

A Omega Patents and Accele.

MR. GILCHRIST: Move for admission of 81.

MR. KAUTH: No objection.

THE COURT: 81 is admitted.

BY MR. GILCHRIST:

Q If you will pull number 101. Is Exhibit number 101 a license agreement between Omega Patents and Portman Security?

A Yes, it is.

MR. GILCHRIST: Move for admission of Plaintiff's Exhibit 101.

MR. KAUTH: No objection.

THE COURT: 101 is admitted.

BY MR. GILCHRIST:

Q That brings us to Plaintiff's Exhibit number 71. What is Exhibit number 71?

A It's another agreement.

Q Between Lear and Omega Patents?

A Yes.

Q Can you explain to the jury who Lear is?

A Lear was -- or is a manufacturer, pretty much an OEM manufacturer. They make for GM the dash panels, seats, electrical devices that are inside the car, all kinds of stuff that the car manufacturers want. Lear was like a tier one supplier to the car manufacturers.

Q They're a publicly-traded corporation?

A Yes, a publicly-traded corporation.

Q Did they enter a license agreement for the data bus patents?

A Yes, they did.

Q And theirs was a little bit different, though, wasn't it?

A Yes.

Q Because theirs was a lump sum payment?

A Theirs was a lump sum payment.

Q Of how much?

A $5.9 million.

Q Why would you take a lump sum payment from a supplier of GM?

A Definitely the car manufacturers don't like turning around painting it on per piece.[sic] But anyways, there were some issues, because Lear had filed bankruptcy. General Motors filed bankruptcy. Shortly after that Lear filed, because they owed them so much money. So that kind of muddied up all of the past damages. Because in a lawsuit, if they go bust, you're not collecting the past damages. I was unable to see what all the sales records were because it was for attorneys' eyes only, so I didn't know anything on that part of it. I had to take my counsel's recommendation that you're still getting your royalties, per each one of the cars, using a formula for what could be into the future for what they're already selling. And also, the fact that it was a limited license.

It was for only doing remote starting for one platform, one car at a time. It wasn't something that knew multiple cars, 'cause out of all my patents I only have basically the one patent -- or I do have a set of patents that cover for remote starting the car using the bus to be a part of it. All the other stuff -- unlocking the doors, unlocking the doors -- it would take multi vehicles. But remote car starting, at the time we filed the patents, that was the only thing that was very obvious that nobody was remote starting.

Q The next one I'm going to have you pull is Exhibit number 100. Is that an agreement with General Motors?
A Yes, it is.
Q If you sued their supplier why would you enter into an agreement with General Motors directly?
A During the interim that we sued Lear, GM started using some stuff from some other people. So we felt we wanted to collect the royalties on what those pieces were, being that was a real smart attitude of making this change. Anyways, we filed the suit. And during that suit, again I was not privy to see sales records of what was going on. I had to take counsel's opinion of everything, and the fact that the majority of the sales were still from Lear product that was being inside of there and General Motors had the bankruptcy, and so the bankruptcy muddied up all kinds out stuff.
Q So how much did you settle with General Motors for?
A On General Motors, we settled for $50,000. And that was a very limited one or two patents and that was it.
Q I want you to next pull up Exhibit number 67. Do you recognize Exhibit number 67 as an agreement between Omega Patents, LLC and Mid City Engineering?
A Yes, I do.
MR. GILCHRIST: Move for admission of Exhibit 67.

MR. KAUTH: No objection, Your Honor.
THE COURT: 67 is admitted.
BY MR. GILCHRIST:
Q And Mid City offered you $20 a unit?
A Yes.
Q And you accepted that?
A Yes.
Q Next I want you to pull Exhibit number 68. Do you recognize that as a license agreement between Omega Patents, LLC and Cimble?
A Yes.
MR. GILCHRIST: And move for admission of Exhibit 68.
MR. KAUTH: No objection.
THE COURT: 68 is admitted.
BY MR. GILCHRIST:
Q Next I want you to pull Exhibit number 154. Do you recognize Exhibit number 154?
A Yes.
Q What it is?
A It's the royalty reports that you all requested.
Q It's a spreadsheet that you prepared?
A Yes.
Q From your business records?
A Yes.

Q That accurately reflect the amount of royalties you've collected?
A Right to the penny.
MR. GILCHRIST: Move for admission of Exhibit number 154.
MR. KAUTH: No objection, Your Honor.
THE COURT: 154 is admitted.
BY MR. GILCHRIST:
Q Can you tell the jury how much royalty income you've collected for the patents that are at issue in -- well, for the group of patents over the years?
A As of the beginning of this month, I just rolled over the 50 million mark in collecting royalties, and everybody's happy.
Q Have you turned down others that have sought a license?
A Yes.
Q Can you pull Exhibit number 93. Is Exhibit number 93 an agreement between Omega Patents and JBS Technologies?
A Yes.
Q And JBS Technologies agreed to stop using the data bus technology?
A Yes.
MR. GILCHRIST: Move for admission of Exhibit

number 93.
MR. KAUTH: No objection, Your Honor.
THE COURT: 93 is admitted.
BY MR. GILCHRIST:
Q I want you to next pull Exhibit number 102. Is Exhibit 102 an agreement between Omega Patents and Precision Industries?
A Yes, it is.
Q In that part of that agreement did Precision Industries stop using the data bus technology?
A Yes.
MR. GILCHRIST: Move for admission of Exhibit number 102.
MR. KAUTH: No objection.
THE COURT: 102 is admitted.
BY MR. GILCHRIST:
Q Next one I'm going to have you pull up is Exhibit number 82. Is Exhibit 82 an agreement between you and Bomar?
A Yes.
Q Did Bomar agree to stop using data bus technology?
A They agreed to stop selling it to other people. Bomar was the maker that was making the product for Tzilogix. And so, I needed to make sure that he wasn't going to continue selling the stuff out the back door.

So everything he did sell out the back door he paid me for, and he had to stop going forward.
MR. GILCHRIST: Move for admission of Exhibit number 82.
MR. KAUTH: No objection.
THE COURT: 82 is admitted.
BY MR. GILCHRIST:
Q And please pull Exhibit number 83. Is 83 an agreement between Omega Patents and Ultrastart?
A Yes.
Q Did Ultrastart agree to stop using the data bus technology?
A Yes.
MR. GILCHRIST: Move for admission of Exhibit number 83.
MR. KAUTH: No objection.
THE COURT: 83 is admitted.
BY MR. GILCHRIST:
Q I want you to next pull Exhibit number 98. Do you recognize Exhibit number 98 as an agreement between Omega Patents, LLC and AT Autosport?
A Yes.
Q Did they agree to stop using data bus technology?
A Yes.
MR. GILCHRIST: Move for admission of Exhibit

number 98.
MR. KAUTH: No objection.
THE COURT: 98 is admitted.
BY MR. GILCHRIST:
Q Are you familiar with a group known as Pacific Accessory Corporation?
A 98?
Q No, you just did 98.
A Oh, I just had that one.
Q I'm asking you about Pacific Accessory, no exhibit.
A Oh, there is no exhibit.
Q No.
A Oh, okay. Yes, I do know.
Q And did you reach an agreement with Pacific Accessory Corporation?
A Yes, I did.
Q Was there a written agreement?
A Yes, there was.
Q Are you sure?
A Yes. I know there was a written agreement.
Q All right. Did they agree to stop using the data bus technology?
A Yes.
Q And are you familiar with a group known as Mobis?
A Yes.

Q Who is Mobis?
A Mobis is similar to Lear. They are a tier one supplier to Kia and Hyundai.
Q Did they agree to stop using data bus technology?
A They were getting stuff through one of my licensees, and then decided to go to Korea directly. And so my licensee complained to me, I filed the suit, and now the product -- I'm getting paid on the royalties on those pieces through one of my licensees.
Q Okay. I want to move now into CalAmp. When did you first have a face-to-face meeting with a representative at CalAmp?
A Approximately 2009.
Q Where?
A At the SEMA show in Las Vegas.
Q What's a SEMA show?
A It's a service -- show for automobile car dealers and stuff.
Q Who was there?
A All the car manufacturers, tier one suppliers.
Q Sorry, bad question. Who was in this meeting between you and CalAmp?
A Myself, Bill Duffy.
Q Bill Duffy is whom?
A He's an employee of mine.

Q Okay. And who on behalf of CalAmp?
A There were two. Gallin Chen is one, and I forget the other person's name.
Q Okay. And can you tell the jury the purpose of that meeting?
A My sales person had contacted CalAmp with, you know, there's a problem with patents. Here's all this stuff. Told them about the patent numbers, and so forth. And they wanted to talk at SEMA, so we did. And when we sat down with them, I felt like I was right back at an original Directed Electronics meeting to where I was being cut down, that my patents stink, there's so much prior art. These are all invalid, everything that you've got. We don't need to take anything. And what kind of degree do you have? And I go, I don't have a degree. I've got a high school education. Well, we've got all kinds of degrees, you know. But they did it so smooth, so calmly of talking, just Mr. Nice Guy. You couldn't get them pissed off no matter what.
So, I mean, when they started just talking down to me and just tearing me -- just really pissing me off, I got into their space. In fact, I had told Duffy, I said, hey, I just want to see if these guys will do anything but smile and talk nice, so I just started coming right back at them calling them liars and all

kinds of names and just leaning forward in their face. They never budged, very smooth talking.
Q Was the purpose of the meeting to negotiate a license?
A Yeah. Well, to talk about a license or to talk about what was going on with the patents and which the meeting really was all about how my stuff is invalid and if we continue on then they're going to invalidate all my stuff and all my license programs will go right down the toilet, because they're going to invalidate everything. They got all the degrees to be able to prove all this stuff. And back in the '80s, they had an IC chip that was programmable, and they could have programmed in every one of these features into the unit.
And I'm going, gee whiz, that's, like, more than ten years ago. Did you actually do that? And they're going, no, we didn't have to do that then, but we could have done that all back then. And I said, well, that don't count in the Patent Office that you could have done that.
Q Let me -- as a result of that meeting, did you enter into a license agreement?
A No.
Q Did you offer them one?
A I still tried to turn around and do a license

agreement. They said to send them a license agreement so they could read it all over and see what was what, so that's what we did.
Q And did they reject it?
A Yes. The meeting was the beginning of November at the CES show in Las Vegas in 2009. Sent them the agreement. And then by December -- so that's only like 45 days later -- they're just going, nope, we don't want any license agreement. We're still standing by our stuff. So in December, around December 15th, we went ahead and filed the first lawsuit against CalAmp.
Q All right. I want you to, then, tell the jury the next meeting you had with CalAmp concerning the patent issues.
THE COURT: Mr. Gilchrist, before we move to this next meeting, let's take our morning break.
MR. GILCHRIST: Sure.
THE COURT: And we'll be in recess until 11:00. Ladies and gentlemen, it's a 15-minute break.
(Jury exits.)
The record should reflect the jury has withdrawn.
Mr. Flick, I understand you're very passionate about your position in the case, but please refrain from using profanity.

THE WITNESS: All right. I didn't realize I did.
THE COURT: Several times.
THE WITNESS: Okay. I didn't realize it.
THE COURT: We're on break until 11:00.
MR. GILCHRIST: Your Honor, may I speak to the witness about that issue?
THE COURT: Yes, you may.
MR. GILCHRIST: I know I'm not supposed to otherwise, but...
COURT SECURITY OFFICER: All rise.
(Recess 10:45 a.m. to 11:05 a.m.)
THE COURT: All right. Are we ready?
Nancy, take your time.
DEPUTY CLERK: Why, thank you.
I have one more to stamp.
(Pause in proceedings.)
COURT SECURITY OFFICER: Are we ready for the jury, Your Honor?
THE COURT: Let's wait for Nancy just for a moment.
DEPUTY CLERK: Oh, dear, the stress...
(Pause in proceedings.)
DEPUTY CLERK: Thank you.
THE COURT: Sure. All right. Now we are.

COURT SECURITY OFFICER: Yes, sir.

(Jury present.)

THE COURT: The record should reflect the jury has returned. And the parties are present.

Mr. Gilchrist, when you're ready, sir.

MR. GILCHRIST: Thank you, Your Honor.

BY MR. GILCHRIST:

Q When we took a break, we were talking about the fact that you had a meeting at SEMA and license negotiations failed and you sued CalAmp. Do you recall that?

A Yes.

Q And did you have a subsequent meeting after you sued CalAmp?

A Yes. CalAmp said they wanted to meet at the CES show, which was the first week of January.

Q In 2010?

A '10. So that was like 20 days or so after they got filed the suit.

Q What did CalAmp say to you at the CES show?

MR. KAUTH: Objection. Hearsay.

THE COURT: Sustained.

BY MR. GILCHRIST:

Q Hold on. What did you take away from your meeting at the CES show in 2010?

A That they -- that CalAmp only made a blank box and

that's what they sold to their customers and their customers did all the programming of all of the features and stuff that I'm complaining about and that I needed to go sue their customers.

Q And did you put your lawsuit against CalAmp on hold as a result of that meeting?

A Yes. We stuck the suit against CalAmp on hold. It wasn't -- it was kind of dropped, but it was put on hold because of a -- we were guaranteed a venue if we've got to bring it back up again. And I went and sued the customer that I knew that had the product that we found that had the features in it which was Numerex, and we sued Numerex.

Q And what became of the Numerex lawsuit?

A It didn't take too long, and they settled and they're paying me royalties every month for all the product that they purchased.

Q Will you pull Exhibit number 99? Do you recognize Exhibit number 99?

A Yes, I do.

Q Is that the license agreement between Omega Patents and Numerex?

A Yes, it is.

Q Did that also have the marking requirements?

A Yes, it does.

Q Does it also have the innovation provision?

A On the data bus side of it, yes, because their license was a combination of -- my tracking patents were stuck in a bundle for Numerex 'cause that's what the argument was about, but during the argument, Numerex -- I explained about all the data bus stuff. They checked out all the data bus stuff. And they agreed that the future would be tying the two together and they wanted a license also for the data bus stuff. So we gave them a license for both.

Q And did there come a time that you pursued another group that was what you believed to be using some of your patents known as Sky Patrol?

A Yes.

Q Can you explain to the jury what happened there?

A Sky Patrol is out of Miami, Florida. They were doing a GPS unit that we found that was in violation of the patents, and we filed suit. And during the suit, because they were using product from Enfora -- that's what I thought, it was an Enfora product. And during the suit it was discovered that they had just got done stopping selling CalAmp products. So I didn't see any of the CalAmp product, but this came up in the litigation.

So the counsel got samples of what it was on the

CalAmp stuff that they were doing. And it's got all of the same stuff in it that I was arguing with CalAmp the first time that said, oh, we sold a blank box. Well, Sky Patrol is going, we've got no engineers here to program all this stuff and do all -- we don't get a blank box. CalAmp does a hundred percent of it. And that was the same argument I got back from Numerex. They laughed when I said I dropped the case against CalAmp to go sue them when they said they didn't have engineers to program the box, that CalAmp did all the programming, downloaded everything in it, they got a finished product.

Q Well, did CalAmp become involved in that lawsuit with Sky Patrol?

A Yes. We pulled -- we had to pull CalAmp into the middle of the lawsuit with Miami. And then CalAmp decided to go ahead and pay me the royalties for what they purchased only, and that was it. So they didn't want to continue the royalty, you know, the program or nothing. They just wanted to pay me for what they purchased.

Q If you will look at Exhibit number 45. Can you identify Exhibit number 45?

A Yeah. This is the settlement agreement with CalAmp for the pieces that Sky Patrol had purchased.

MR. GILCHRIST: Move for admission of Exhibit number 45.

MR. KAUTH: No objection.

THE COURT: 45 is admitted without objection.

BY MR. GILCHRIST:

Q Did there come a time that you learned that CalAmp was moving into the data bus technology?

A Yes.

Q Is that what brought us here today?

A Yes.

Q Do you have an interest in licensing CalAmp?

A No.

Q Can you explain to the jury why?

A So far, all of my dealings in the -- in any of my other dealings, it wasn't this bag of lies. I mean, to turn around and say, go sue my customers, because I have a blank box. It's not a blank box. You did it all. You gave them a finished product. And I turn around and followed their instructions, because I believed in them and then turn around and find that from Sky Patrol, a year or so later, they've got the same stuff, the same story, and CalAmp settles with what there is there.

And then after the meeting at SEMA to be talked down to and just -- it just really ticked me off. Hopefully that ain't bad. That, and then the meeting that we had

in December, I just don't see -- the mentality of the company is, hey, I'm too big to fail and I'm too big, I can take whatever I want. Even though they got their own engineers and they do their own work, my opinion is you could probably dig and find other people that are getting stepped on like me.

MR. GILCHRIST: Your Honor, I think I misspoke before. I would also move for admission of Plaintiff's Exhibits number 70 through 80.

MR. KAUTH: No objection, Your Honor.

THE COURT: 70 through 80 are admitted.

MR. GILCHRIST: And with that, Your Honor, I have no further questions of Mr. Flick.

THE COURT: Thank you very much.

Cross examination?

MR. KAUTH: Yes, Your Honor.

CROSS EXAMINATION

BY MR. KAUTH:

Q Good morning, Mr. Flick.

A Good morning, Joel.

Q You testified earlier that you're familiar with the patents in suit. Do you recall -- do you have an understanding of what each of the four patents in suit covers?

A I just know generalities of what -- to read those

claims I cannot do, but I know the generality of what there is.

Q Can you give me your general understanding of what's covered in the '876 patent? And if you need to refer to it, that's Joint Exhibit 1.

A I need to refer to it. I don't know the number itself.

MR. KAUTH: May I approach, Your Honor?

THE COURT: Yes, you may.

MR. CHONG: Your Honor, could we switch the monitor to this table, please? Thank you.

BY MR. KAUTH:

Q I'm going to hand you a copy of Joint Exhibit 1, and it's also going to be on your monitor.

A Okay.

Q Mr. Flick, I may be able to help this process. Can you recall back when you had a conversation with your patent attorney about the inventions in the '876 patent and what you told him your invention was?

A My mind's a little bit fried from everything here already, but you can refresh it. But once we start talking, I'll tend to remember.

Q Okay. Do you remember any of the general context from the '876 patent that differentiated from your other patents?

A I don't think we talked about that today, did we?

Q I don't believe we did.

A All right.

Q You've talked about tracker patents. Is this a tracker patent?

A Not necessarily, no.

Q Would you call thus one of your vehicle bus patents?

A I would call it that, but still what's written in there may bring up some stuff about, you know, wireless or from a monitoring station which could be referring to a GPS tracking system's got cellular in it. So there's a lot of different areas inside the patent, so I don't wanna be saying something that you take as gospel that that's what's in this when I'm not a patent attorney to describe everything that is in there properly, like what you're looking for.

Q You've testified that you have over 150 patents, I believe?

A Correct.

Q In your mind, do you have features from each of those patents that distinguish them from one another?

A You know, they can't be the same. Otherwise, that would be double patents. Can't do that.

Q Do you recall any of the features from the '876 patent that, in your mind, distinguish it from your

other vehicle bus patents?
A Yeah.
Q Can you tell me some of those?
A Well, to where it's a way of being able to determine what vehicle you're in, what kind of bus that you need to be able to talk with, and there's different ways of trying to figure that out. In doing those different ways of figuring it out, it's applied to the whole thing whether you got transmitter, GPS, you know, everything all combined that is in there. I wouldn't say that the patent is covering exactly send off one code. If you don't get a response, then send off another, and it's so isolated to that one little piece. It's not. There's a whole bunch of elements that are inside those claims.
Q I heard in the opening that Mr. Gilchrist said you may be a better visual learner, so maybe if you could turn to Figure 1 of the '876 patent?
MR. GILCHRIST: Your Honor, I'm going to have to object. This is beyond the scope of direct. We didn't go into the details of the patent for good reason.
THE COURT: Well, that is true. But to avoid having to recall the witness, I'll allow some limited entry into this area.
MR. KAUTH: I will try and keep this brief,

Your Honor,
BY MR. KAUTH:
Q At the bottom of Figure 1, do you see a diagram that includes a vehicle data communications bus?
A Yes.
Q And do you see the vehicle devices listed below it?
A Yes.
Q And back when you were developing your ideas to hook alarm systems on to the vehicle bus, what type of vehicle devices did you envision controlling?
A Well, it's listed in here -- starting the car, door locks, flashing the lights, horns -- as far as controlling things inside of the car. And you might be able to control the BCM, hook directly up to the BCM and start working the BCM directly rather than the wire underneath the dash.
Q And what's the BCM?
A The body control module.
Q And what does that do in a vehicle?
A Well, the body control module is like the brain or the controller of the car 'cause it's brain unit that deciphers different things to do. You know, just like this right here, you know, they want to call it a controller, and I usually call it a brain box. That's the way I've always -- in my language would be a brain

box.
Q And in your alarm systems that you were building at Omega R & D, you mentioned the brain box earlier, and this is before they connected to the vehicle data bus, what vehicle devices could the brain box control?
A Door locks, lights, ignition, emulate what your ignition key is doing.
Q So I could remotely start the car, even if the key wasn't in?
A Correct.
Q Okay.
A You could read the -- the boxes could determine when a door was open, because you're reading the negative pulse that occurs on the door, so that's reading, not sending the door lock code to lock it. It's literally, did the door open or did it not, so it's got to read. So even the brain units in the beginning were listening and also talking. Even though it was hard wired, that's the way you've got to put it. That's where you're dealing with an input and an output.
Q Okay. Let's jump to the Jeep Grand Cherokee for awhile.
A All right.
Q Do you recall what year vehicle that was that you were looking under when you had your kind of ah-ha

moment?
A '96.
Q And what did you do to that vehicle? Did you actually connect the device to the bus?
A Yes.
Q And did you control the door locks with that device?
A Yes.
Q And refresh my memory, where did you get the codes to control the door locks or the commands?
A I just explained how I got the codes. We bought a device that was able to read the vehicle's codes that just came across and it had a software program that you loaded into your computer, your laptop, that allowed it to talk to it, because you had one brain box. And that brain box connected to the bus and it plugged into your laptop. Then, you had software that had go into the computer. And, in turn, it allowed the screen to show you all of the codes that are coming across inside of the car. So as it came across the car and this interpreted it and then stuck it up here with zeros and ones and letters.
Q And what was the time frame when you were actually looking at those codes?
A '96.
Q And did Omega R & D come up with a vehicle bus

device in '96 that it sold?
A No.
Q When is the first time that Omega sold a device that connected to the vehicle data bus?
A Sold the device would have been 2002.
Q Do you recall in your deposition testifying that that would have been 2004 was Omega's first bus device and that it was from Trilogix?
A Yesterday or two days ago talking with the attorneys or whatever, I remember that part of the conversation, but it really wasn't. In fact, it was 2002, and it was our device that we manufactured ourselves. And I think there's some other deposition stuff where we talked about that, just not that one little slivet [sic phonetic] that was out of there.
And my brain is fried and I was wrong to say that I only started in 2004 and it was only a unit that was purchased from Trilogix 'cause that wasn't the situation. I don't know why I said that. But there's other parts in that deposition that should have it to where I was building my own units.
In fact, you can still find them in a web page doing a search on DL -- on DL-3, which is a data bus door lock 3, so it did three different types of vehicles, and we stuck dip switches on it in which we grabbed the codes

out of the car, we turned around and sent the information -- we got another box similar to what we had and we sent it over to China so we could tell them what to do, punch in this code. Whatever you saw come out of the box going to the car, that's what I wanted you to copy, to stick it in my box. And it would be able to have a dip switch to select whether I wanted one type, a second type, or a third type, and then eventually the dip switches grew.
Q The codes came from China, then, based on what they were able to reverse engineer?
A No. We reverse engineered it by going into the car with this mechanism that we had. We bought a second -- after I was able to prove to my other tech guys that, hey, this was the future, we bought a second one and I sent it off overseas so that that way they could hook it up to whatever they hooked it up to, that we could turn around and say, punch in this code and whatever comes out of the box that they had, that's what I wanted you to emulate to make that device.
Q Okay. So the DB-3 could be compatible with three different vehicles; is that correct?
A Approximately, yes, on the first one. They were on GM units. And then, it started expanding after that. As soon as we got the first one, hey, everything was

great. And then, we added another car, added another car, added another car.
Q So when you say it was a GM unit, you would work with three different GM vehicles?
A GM type. It would work with a Jeep. And it also did the GM cars, some of the GM cars.
Q And tell me how the dip switches worked.
A Well, the dip switch would tell the computer IC chip, when you grounded out one little pin of the IC chip, then it told the internal computer of it use these codes so that when you ground this wire over here we want the lock code coming out. When you ground this wire, we want to see the unlock code come out. So we were pretty much just doing door locks at that particular time.
And this module allowed you to hook it up to the car alarm unit or you could hook it up to a GPS tracking unit. And my GPS tracking unit that we had had -- you got outputs, so -- in which we had negative output. So if you said, hey, trigger output 1, okay, we wired it up for locking the door. And you trip output 2, you're unlocking the door. Or same thing with your car alarm, when you wanted to lock or unlock, you're doing different negative pulses off these wires. You took those negative wires to the data bus module we made, so

you had two wires going over to the door lock piece and you only had the one or two wires going over to the computer inside the car. So --
Q And how many different DB devices did you make?
A It just grew. There's -- right now, there's like a DB all, so it does everything. And that box, the dealers are paying almost $50 for this box. So the $20.50 days, those are gone.
Q Okay. And could the DB-3 remotely start the vehicle?
A No.
Q Could it set the alarm?
A Yes. Because when we sent -- that was one of the other things we did besides the door lock code that was in there, it also -- the car had an alarm in it so we needed to know what -- with the arm the alarm and the disarm code from them car factory 'cause it had a car alarm in it, so we could turn around and get those codes. And inside of the -- there is a code in there that turns around and says disarm the alarm and unlock the doors or, you know, lock the door and arm the alarm. Then, you've got a code, a separate code, that we could just do the door locks, and then you've got a separate code that you could honk the horn.
Q And was the DB -- let's use the DB-3, was that a

free-standing unit or was that a module that attached to one of your alarms?
A It attached to one of the alarms or to a tracking unit.
Q Okay. Let's move on. You spoke about the GPS 2000.
A All right.
Q And that was not a vehicle data bus compatible device, was it?
A No. It did not connect directly to the data bus.
Q And you said you thought that came out in 2001 and people gave you a hard time, because it had 2000 in the name?
A Yes.
Q Do you recall issuing a press release in 2000 about showing that device at a show in Atlanta?
A Yeah. We -- you know, what was asked when I really started selling the unit, we started selling it right around the beginning of 2001. There may have been some pieces that were sold in the year 2000 to where it went to the SEMA show in 2000 so we ran press releases on the GPS 2000. We were still 2000. And --
Q Did Omega partner with anyone to produce the GPS 2000?
A Yes.
Q And who is that?

A The guy's name is Ashook [phonetic]. He's in California. I can't remember the name of the company off the top of my head.
Q Do you think it might be Televoke?
A No. Televoke was the back-end service provider for the unit.
Q Okay.
A They didn't supply the GPS unit or anything. They were the back end. Televoke had their computer system. And they had a huge network connected to the trunk line of the telephone company that went over to the control channel company, because you weren't really working off voice channel. You were working off of the control channel.
Q Did the GPS 2000 control any vehicle devices?
A Yeah. It had negative outputs to where you could lock or unlock the doors on cars that you could do that to.
Q And does that mean it output a voltage signal to the negative output?
A Yes.
Q Okay.
A Yes. And if you had a car that needed data bus, then you bought the module, the data bus module that we just talked about, and connected it to it so that it

would convert into codes.
Q So the DB-3 module would have connected to the GPS 2000?
A Yes.
Q Did the GPS 2000 have anything for doing speeding alerts?
A Yes.
Q And tell me how speeding alerts work.
A Because you're on the control channel, you got charged for all the different pings that were coming across, every alert that you got. So on the speed alert, I had designed it to whatever speed that you set it for, because the consumer could go into a web page and set it for 60 miles an hour or 65, whatever that you wanted to set it for. Well, it needed to do that speed for greater than 30 seconds. If it was speeding that speed under 30 seconds, you never got an alert. And the other companies that were out there that had speed alerts that were already there did not do that. As soon as it hit 60 miles an hour, you got an alert. And then --
Q And then, where did these alerts go?
A To the monitoring station. And then, the monitoring station would turn around and if they were instructed in the monitoring station to automatically send me a pager

message or call my phone to tell me, hey, your car is speeding, but even when it did it for the speeding, 60 seconds later or whatever the specs were on the phone company 'cause you just couldn't sit there and go, you know, here's one alert, another, another, another, there were specs off the telephone line that you could do it, like, once every minute. So if you were speeding every minute, you would get another one, and another minute, another one. So you're just cranking up all these alerts and expense. So to be able to make my unit more cost effective to the consumers; we ain't paying so much money per month, having that feature in there that you could speed for a period of time --
Q So I could set it for a two-minute period of time and maybe a speed of 65 and if I exceeded the speed of 65 for more than two minutes, it would send a notification; is that correct?
A Yeah. If you set it for 65 miles an hour and you exceeded that speed for, let's say, 30 seconds you got the alert. And there's also a patent on the fact that you got one alert. So the only way that the machine was reset was that when the car stopped and you turned off the ignition key, then it reset the counter, so that way you would only get one alert. And sometimes we had set it up to where, okay, if you got that alert then if it

happened again after four minutes or something, then you're gonna get another alert and you're gonna really know your kid is hot-dogging out there.
Q And the GPS 2000, I'm assuming from the name, had a GPS unit; is that correct?
A Yes.
Q And where did the GPS 2000 get the speed information from?
A From GPS. It did not get it from the bus at that time.
Q And so in early 2001, you were selling the GPS 2000?
A Yes. Or in -- definitely 2001, if not in 2000, we was beginning to sell some and get the feelers out there for the particular units.
Q If you could take a look at Joint Exhibit 3.
MR. KAUTH: May I approach, Your Honor?
THE COURT: Yes, you may.
BY MR. KAUTH:
Q Do you have an understanding that the '727 patent that is Joint Exhibit 3, relates to speeding notifications?
A The one up here is the '885.
Q I'm sorry.
MR. KAUTH: May I approach again, Your Honor?
THE COURT: Yes, you may.

BY MR. KAUTH:
Q I've handed you the wrong exhibit. Turn to Joint Exhibit 4. So if you could take a look at Joint Exhibit 4, do you have an understanding that the '727 patent relates to speed notifications?
A Yes, that's what it's related to.
Q And do you see on the face of the '727 patent it says it was filed in 2007, correct?
A Yes.
Q So that's more than six years after the GPS 2000 device came out, right?
A Yes. But the GPS 2000, I was working on the design and doing all of that work in 1999. It took that long to finish the project to get it out there. It isn't like, wow, 30 days later you got a product. I've got to start from scratch.
Q But it was publicly sold in 2000?
A It was publicly sold, but the project itself was in great detail in 1999.
Q And do you understand -- do you have an understanding whether the '727 patent would cover the features of the GPS 2000 regarding speed notifications?
MR. GILCHRIST: Object, Your Honor. Calls for a legal conclusion.
A I don't know. It would take time for --

THE COURT: Bear with me, Mr. Flick, just one second, please. I'll allow the witness to answer to the extent that he can as a lay witness, but not as an expert.
MR. KAUTH: All right. You can answer.
A I'm not sure if it's in this patent that has got a statement on the fact of it could be determined from the bus. There's possibly another patent that covers from the bus. I don't know.
BY MR. KAUTH:
Q Okay. So just to clarify, GPS 2000, though, could not get speed from the bus. It took speed from the GPS, correct?
A Correct.
Q In your mind, have you asserted the '727 patent in this case for taking speed from the vehicle bus?
A I don't know. That's really part of the counsel for what all the details are.
Q Okay. Let's move on to a different topic. You mentioned you met with CalAmp previously and had a meeting with them in 2009 at SEMA and that you filed a lawsuit, but it was put on hold. Do you know if Omega actually dismissed that lawsuit?
A That's what I was trying to explain. I think it was dismissed with the provision in it that if we had to

turn around and bring it back alive, we got venue in Atlanta 'cause that's where the suit was and that's where we -- or no. We had venue in Orlando, excuse me. The suit was brought out of Orlando. We didn't want to lose venue and start the whole process all over again. So I was told it was put on hold with that clause in it that it would be here. That's why we're here in Orlando today because of that clause.
Q And do you recall if there was a formal settlement from that lawsuit?
A I don't recall anything to where it was like a regular document that's all signed up. I'm sure to do whatever they did with the courts to make it go away, there was something the attorneys sent in.
Q And do you recall if any of the patents that are in the lawsuit we're in today were involved back in that lawsuit?
A I think so.
Q Do you know which ones?
A I don't know off the top of my head, but I know something is there that was involved in those. That's why I depend on the counsel.
Q Are you familiar with a patent that was previously in this lawsuit called the '989 patent that may be in your tracker patent group?

A If you say so. I haven't gone over any of it on the '989.
Q So you don't -- you're not familiar with why Omega was asserting the '989 patent in this lawsuit?
A Not exactly. I'd have to sit down with counsel to refresh my memory which, before the case started, we sit down and go through it all.
Q Do you have a recollection if the '989 patent was included simply to get venue in Orlando?
A No.
Q As part of your discussions with CalAmp, both before and after that previous lawsuit, did you receive any claim charts from CalAmp explaining why they believed the patents may be invalid?
A I know there were claim charts that were sent back and forth, my attorneys doing up claim charts to them. I don't know exactly if -- whatever they did, if they did one that was sent back to me, which I tend to think they did, that was all given over to the attorney to do the responses going back saying you're wrong here, you're wrong there, that's all the legalese that the attorneys had done.
Q And CalAmp sent prior art to Omega as well at that time, didn't it?
A I don't know. You'd have to ask counsel and the

attorneys for whatever the prior art is that they would have sent. Odds are they did send some and my counsel said everything they sent was already listed on the patent and the Patent Office already reviewed it all, so they didn't understand where you're coming from.
Q We talked earlier and it was mentioned in opening that you learned about the vehicle data bus to come up with the Omega products, and you mentioned earlier a device where you could read the codes on the computer screen. Did you do anything else to learn about the data bus?
A No. I'm not a person to sit there and take reading classes or any of that kind of stuff. I'm more of a hands-on person. And the company was bigger and I had different guys doing different things and I could turn and say, hey, you know, work the computer. You sit there all day long, look, read the codes, play them back one at a time, 'cause it could take all day to come up with some of these codes.
Q Okay. And that was, I believe you said, in '96 when you were looking at the Cherokee, correct?
A The original was looking in up '96 on the Jeep Cherokee so that we knew -- I knew I was in the right direction, and I knew I could build the product. That's where I was at.

Q In learning about the vehicle bus, did you investigate any standards that control the vehicle bus?
A No.
Q Did you investigate different types of vehicle buses at that time?
A The technical guy said I've got -- 'cause I had about six different guys that answered all the phone calls for, I can't put it in this car, what's wrong with this, what's wrong with that. They'd answer, all the technical guys. And they would come up and -- now I'm lost. What was the question again?
Q I'm lost as well. Let me try a different question for you.
A All right.
Q It was, were you aware of the different types of vehicle buses in 1996?
A All right. My technical guys, because we turned around and spent hundreds of thousands of dollars buying all these Mitchell books for the wiring diagrams for each one of the cars, I mean massive quantities of these books that we had to do for every car. And my guys would have to sit down and when somebody would call up, I'm doing an install on such and such a car, we'd have to get the Mitchell book, go through it, check out wiring diagrams or whatever and probably, probably

inside of those Mitchell books it had SAE, whatever, that was going on.
And I started learning, you know, or hearing the words SAE more from counsel when they'd turn around and say, hey, leave it to them. They'll find all -- you know, all the paperworks that need to be. All the SAE stuff was inside of the patents. It was all noted that was in there. But whatever my guys did to come up with any type of specs or whatever, I didn't pay them to sit there and start reading manuals. I mean, that's a -- that would be beyond a full-time job for a warehouse of people.
Q So back in '96, you weren't aware of J1978, the SAE specification?
A Not the specification. We were aware of the J18-- of the different buses, we were aware. Well, in '96, we were just basically familiar with the one that was in the Jeep. And then I think -- the Jeep had it in '96, and I think GM started in '97, '98.
Q Do you recall if in that Jeep that would have been an ISO 9141 CAN bus?
A I think it was. And in '96, there was a twisted pair that was inside the car. In the GM, wasn't it a twisted pair?
Q Let's jump back to your dip switch device, the DB-3

through whatever. Which bus did that device work on?
A It worked on the Jeep, and it also worked on the GMs.
Q And was that a different SKU for the one that worked on the Jeep and the one that worked on the GM?
A The same one. You just flipped the dip switch in it, and then we emulated the CAN bus or we emulated the J series.
Q Okay.
A It was in there. Everything was emulated. We didn't buy the CAN chip and stick it in the board or the J chip and stick it in the board. We actually emulated what it was doing. Today's time, because you can end up with problems trying to emulate it and it not be exactly correct with messages and reading all this stuff, today's time on the bus modules, which we still make, they actually buy the CAN chip -- and all the different platforms, the chips are stuck there.
Q So back in those days, in '96, your technical guys would have had to still follow the SAE standards, wouldn't they, to get the messages in the correct format?
A We didn't -- all we did was whatever this box was that we could punch in a code on our laptop to say, hey, lock the door and whatever that code was, that's what we told them over in Taiwan, do that. And whatever came

out on your scope, that's what I want to come out of your IC chip so I can go and lock those doors, and it worked.
Q That's the code coming from the Jeep that you're reading, correct?
A First the box is reading tons of codes coming across. We would work lock, tell the machine stop. So the screen would have a hundred different codes sitting on it.
Q So those are SAE-compliant codes that Jeep put in the vehicle, correct?
A Yes.
Q Let's turn to your licensing. You spoke about your different licenses and your program. Have you licensed your patents to anyone -- let's focus on the vehicle bus patents -- for a price different than $5 per unit?
A Yes.
Q And who are those people?
A Mid City Engineering, which we listed all of the patents, but then we have -- because each one of the different patents may have, you know, a fringe of something that he was doing. But then we stick in a claimant's statement in there that out of all these patents, you are only authorized to do remote car starting, anything related to remote car starting in a

Mercedes, and it was vehicle-specific. You couldn't do the GMs or anything else, the Mercedes.
Q All right.
A And that was a $20 per piece license, because the amount that he was selling for that one SKU -- and I was trying to be nice and not be mean, but nobody else -- none of my other guys were selling this stuff. But at a $5 license, I couldn't afford to monitor that license for what he was selling and pay my attorneys or if any arguments came up and I got to pay my counsel to go do something, I would be losing money.
Q So it was low volume, but you still had to monitor it?
A Yeah. It was low volume, I had to monitor it, so it was $20 apiece on what he paid me in royalties. The second part of that was -- the reason that I also added the $20 on there was the fact that it made an incentive on his side to work with my other licensees to sell them. Because if they sold them the unit, they could sell it and only pay me $5.00. So he had to give me reports for if he did, which he did, he sold Directed Electronics and he sold ADS those modules. And then ADS stuck it on their reports and so did Directed Electronics and paid me five bucks apiece. So that was -- he was very happy with that. But then all of a

sudden, Directed Electronics gets so much in sales and they're also reverse engineered and they came out with the same stuff and then now he's back to the lower sales, but I'm still collecting $20 per unit, and he still sells hundreds of units.
Q All right. One of the licenses you mentioned earlier was with Lear. I believe that's -- if you can put up Exhibit 71 of the plaintiff's exhibit, please. In the Lear agreement, do you recall which companies Lear was selling products to?
A There was, I think, a Honda unit, of course, the GM unit, and I think there was one other unit that there were, I was told, low sales. But it would be inside of the paperwork from Lear 'cause at the time I was not privy to all of this information.
Q So you didn't know how many units were being sold?
A I have no idea, just like I have no idea with your stuff at all. It was all for attorneys eyes only. It was only when the agreement was done that I got to see the fact that there was, you know, a Honda model. They put a list of the model numbers inside the agreement. Then, I knew that there was some other particular SKUs.
Q So there were Lear models for Chrysler as well, correct?
A There may have been. It's all in the print.

Q If you could turn your attention to the bottom of Exhibit 71, You will find an appendix at the end. It lists the products and the companies.
A Yep.
Q So you see General Motors, there were four different Lear products, right?
A Yes.
Q Chrysler, one product?
A Right.
Q Ford one product, correct?
A Yes.
Q Honda, two products. And Alerting Products, one product; is that correct?
A Yes.
Q And this was entered into in 2011?
A Whatever the date is in there, that sounds about right.
Q And under this agreement they're still allowed to continue selling products, aren't they?
A They're allowed to sell very limited --
Q These products at the end?
A Yes. But I think when this was done their sales, they picked up whatever they had sold at any time to anybody and it all got listed because they wanted to wash it all out, but the bankruptcy washed it all out.

So when the bankruptcy was there, whatever the sales were in this here, I may not have been paid for it, because the bankruptcy wiped it out. But the license that they got was for remote starting the car on a single platform not, multi platform.
And so, in discussions with my attorneys, we felt that that won't last long at the single platform. They are going to turn around and say, wow, in GM we got four different platforms. We need to make one unit that will work all four of these different platforms out there. So that's what I'm banking on, of what there was.
So in the agreement, it carves out there is no multi platforms. This is solely remote starting a car on a single platform. And this was the main -- this was the only one I had that was on a single platform that I could recall, which was remote starting the car.
Q But you have no idea how many units had been sold under this license, do you?
A I have no idea, but I know the massive majority was wiped out in a --
Q Since 2011, do you have any idea how many cars General Motors has sold with remote start capability?
A No.
Q How about Chrysler?
A No.

Q Do you know how many remote start cars Ford has sold since 2011?
A No.
Q How about Honda?
A No.
Q And do you know how many products -- how many products Alerting Products company has sold since 2011?
A Well, you're getting into -- I don't even think Lear was continuing to sell Honda or none of these other people. That was stuff that they had sold in the past. So to turn around and take future sales of something that they're not even dealing with them, that may not have been part of their calculations.
Q But you can't calculate what your actual per-unit royalty would have been on these products, can you?
A When this was done, I was told that their calculations were based upon $5.00 a car. That's what it was based upon. And also applying that formula to what they felt their projection was of what sales were. That's what I was told.
Q Okay. But you can't verify that information now?
A I cannot verify that information. Just like the fact of you say, well, this agreement covers everything they're selling today and what were their sales today. I would say, hey, my opinion is they aren't selling that

product that they are licensed for in those cars today. What they got in it today, in my opinion, is multi platform --
Q But you're not sure?
A -- and we'll be back at that again. So just because I settled with this doesn't mean I ain't coming back at them for the multi platform, and they know it.
Q Have you confirmed that they're actually using multi platform?
A Working on it.
Q You're not sure yet?
A I feel in my heart I'm a hundred percent correct. It's just the matter of trying to prove it, which is very hard to do.
Q Another agreement you mentioned earlier was one with GM for 50,000 and that's the same type, right, a lump-sum settlement?
A It was a lump-sum settlement for the same thing, carving out only for what they had transitioned for the time period with Lear. We thought there was going to be a lot more there for what had happened and evidently there wasn't.
Q So --
A And, in turn, the bankruptcy was a big issue in all of this. So, in turn, my counsel recommended, you know,

if you took the $50,000, you know, that will be fine for their formulas or whatever they did, it will still come out to five bucks a unit. Once you get all the muddiness of the bankruptcy involved, it's not going to hurt the future licensing program. And then on top of that it's going to be multi platform after it, and they know it.

Q You were guessing there were about 10,000 units at play there at $5.00 each: is that correct?

A I don't know how it worked out. Like I say, the bankruptcy was a big, big problem.

Q And is GM still selling under that agreement?

A Yeah. The agreement hasn't been cancelled.

Q And did you have an agreement with a company called Enfora?

A Yes.

Q And did they also have a lump-sum settlement amount and not a per-unit royalty?

A The per-unit royalty was calculated in the lump sum dollars. On the Enfora suit, there was the original one which was for the tracking stuff. And then we learned that they had some data bus stuff. And the data bus stuff was being sold to -- they were selling the same stuff to Numerex. And in turn, once the suit was done on the tracking unit and we saw all about the different

modules and the attorneys got all the records for what their sales were, they noticed that their sales were almost nothing and all the sales were going to Numerex, so there was really nothing there to amount to anything.

So, Enfora wanted to get this to go away, so they turned around and agreed to what they paid me for the tracking, which was right around $200,000 just for those particular patents for the tracker, along with if we dropped the case in Atlanta, which I'm going to get nothing for, because they were planning on going bankrupt on all of this stuff anyways and the sales were not going to be anymore anyways is what they sold us.

They gave us the story of bankruptcy, we're in trouble, and that. So to avoid all of this stuff with the bankruptcy again that we learned our lesson with Lear, they turned around and said, we are best to settle for that. You're still getting what the royalties were so we can defend the $2.00 for the GPS and the $5.00 on data bus.

On the one that was in Atlanta for the data bus stuff, when that one was dropped, that was also with if we got to bring -- one, there was a stay so that for two years I couldn't come back after them, because there may not be nothing there. They may be doing bankruptcy or whatever. In their minds, they were looking for

somebody else to go fight this, which you guys happily are doing.

Q So you dismissed the lawsuit and agreed that for two years you wouldn't sue them again, but --

A For that patent, there was a stay, which is all public knowledge. It's all written there. And also, the venue would go back to Atlanta on that one so that way, we didn't have to go fight it in California, which would cost me more money.

Q You mentioned earlier DEI several times. Do you have a license with DEI on a patent, an Omega patent, the '551 patent?

A Yes.

Q And then did you sue DEI again in the lawsuit that you discussed earlier that included the '885 patent?

A Yes.

Q Why did you sue them the second time?

A Because they only had a license for the '551 patent. And the products that they were doing when I sued them, they were buying it from one of my other licensees and wanted it all kept secret and not paying me.

Q So their license to the '551 patent didn't cover what you thought was covered by the '885 patent?

A Yes. There were a lot more patents that covered the rest of the stuff that they were doing.

Q All right. You mentioned earlier that your licensees have a duty to mark their products. Did they mark their products with the patent number they believe the product is covered by?

A No. I think that what they're doing is -- which is at the time that all of this started with the patent markings, people were just turning around and taking all of the patents and saying this product may be protected by one or more of these patents, and then you just list all of the patents that are in there. And that's the way Directed Electronics and Audiovox, whatever their patents were for their own products. They just put out a little card with, you know, this product may be protected underneath one or more of these patents, and they just list all their patents. And then, that also gave a little bit more prestige when the consumer got it, wow, look at all these patents they got, they must be a really good R & D company to do this.

Q In this case, Omega was asked to provide a list or identify any products that were marked with any of the patents in suit and Omega didn't provide any information, did it?

A I have no idea. They should have been able to.

Q Would it surprise you if they didn't?

A Yeah.

Q And do you periodically check to determine which licensees are marking which products with which numbers?
A When I go to -- when it all turned into a flat fee and I didn't really need to get the pieces anymore to check all that stuff, when I go to the CES show, they got the product that is there and, you know, I usually ask where are you doing the product marking, they'll hand me a manual or it will be on the gift box itself printed on there saying, you know, it's protected underneath this particular patent.

I know my licensees have asked me to turn around and say, hey, can we be a little bit more precise, because there's a lot of patents that we're not using but at least cut it down somewhat, because of the space or whatever. So, you know, I had sent them over a list, here's a whole bunch of the patents that I'm positive of. I may have missed one or two. And there may be one or two that you're not covered.

Q So you said some of your licensees said they're not using all of the patents in their portfolio so they want to shrink down that listing?
A Yeah. Well, everything evolves. My patents cover so far into the future, they're not there yet, so they're slowly adding on different things.
Q None of your licenses cover the '278 patent that's

involved in this lawsuit, do they?
A None of my licensing cover the '278? That would be the speed alert? No, '278 is downloading.
Q I can -- let me show you that one so you can take a look at it.

MR. KAUTH: May I approach, Your Honor?

THE COURT: Yes, you may.

BY MR. KAUTH:
Q I'm showing you Joint Exhibit 5, which is the '278 patent. Does that refresh your recollection whether any of your licenses --
A A little bit, yes.
Q And do any of your licenses include the '278 patent?
A Yes.
Q Do you know which ones those are?
A Numerex, Directed Electronics, Audiovox.
Q And are those listed in the agreements?
A I think they are. This one -- all depends on the date. I'm pretty sure that it is 'cause of the date. No, this one was in '11. This one may not be printed into an update 'cause from time to time I'll do an amendment to what there is, because an amendment is just adding on to the original agreement, and I send them over a list of all the newer patents that are covered in it. And from 2011, I may not have done an upgrade, an

agreement on it. I'm not -- I don't recall it exactly, but they are covered underneath this here. And it is a part of my agreement that I would give them the other patents to come along with it, to come along with the other stuff, because they all have got -- both of them have got tracker patents. They've both got data bus patents. And I would have listed this as a part of -- probably underneath the data bus patent. I know it would have been underneath the data bus patents on that list.
Q Did you produce those amendments in this litigation?
A I have no idea. The amendments would only be adding on additional patents. And I forget when the last time I did that, which has been awhile, so I know I need to do it, again, because there has been so much more stuff that has been issued.
Q Now, you mentioned you have 150-plus patents held by Omega. Are those in the U.S. or is that worldwide?
A No, that's just U.S.
Q And are you the named inventor on each of those patents?
A Yes.
Q Another thing you mentioned earlier was the innovation clause in several of your license agreements.
A All right.

Q Tell me how that works.
A Well, I already explained it once.
Q Let me get to a specific point. If someone contacts you with an innovation, what happens next?
A If they contacted me with an innovation of what there is and it's very precise of what there is and I file a patent on that particular thing, they would be listed as a co-inventor. And in turn, because they're listed as a co-inventor from that company, that company doesn't have to pay me any royalties on that device or that patent, if it ever issues. But everybody else, if they were using it, would have to pay me the royalties. And because I have that clause in there, I tried to get it to where that kind of forced everybody to be inventive to do as much as they can, because as the patents expire, they want the other guys to keep on paying me five bucks while they're not.

So if they turn around and have somebody else has got all these other ideas, they start knocking it off because it's good stuff, when the patents expire -- all but theirs -- then I'm collecting five bucks on theirs, but the guy who had the co-inventorship on that patent ain't paying me a penny.
Q These wouldn't be included in the $5.00 licenses? This would be additional for the people that didn't

invent it?
A No. No. The person who didn't invent it, it's a part of my whole package that is there for the five bucks.
Q So they wouldn't have to pay anymore either?
A They don't have to pay anymore. But when all the other patents expire, maybe that's the last one left, they're still paying me $5.00 when the one who was a co-inventor is not. And when I explained all that to everybody, it seemed to be -- everybody agreed. There was no arguments over it. But no one has been -- no one has been giving me that information. There's been several companies that have went and filed the patents on their own and which I have gone to acquire those patents, which I have been, and you would think they would learn their lesson, but they don't.
Q So is any -- have any of your licensees -- had you filed patents through this innovation clause?
A No.
Q So on the Omega patents, are there any patents that list any of your licensees as co-inventors?
A No. But there are some of the patents that do have some co-inventors to it. MichaeI that works for Omega R & D, he's been listed on some of them, Michael Thompson --

Q But none of your licensees?
A Huh?
Q None of your licensees?
A They are a licensee. Omega Research & Development is a licensee.
Q Okay.
A So they're listed on there. Another one of my tech guys. Robby Drew, he's listed on there along with me. Because usually when they come up with whatever they're trying to tell me, it isn't a hundred percent of what the patent is. You know, it's expanded considerably. So I'm also listed as an inventor in there because I am, but so are they. They participated, you know, in the situation. But I have acquired patents that the other people have done wrongfully and they get transferred to me. So that clause has been very useful.
Q I want to jump back to the Cherokee for just a minute. Was that the first time you had ever seen the vehicle data bus when you saw it in that '96 Cherokee?
A Yes.
Q So you didn't invent the data bus? That was somebody else's doing?
A No.
Q How about the command system on the data bus that unlocks the door, was that your invention?

A No.
Q And the device codes that you read back from the vehicle devices, those follow a standard, right? Those were not your invention?
A They may follow a standard. I don't know.
Q In Omega's research in coming up with its bus products, did you ever look at the SAE J1978 bus determination for the diagnostic scan tool?
A No, I did not.
Q And did Omega ever use a scan tool in its research and development efforts?
A After we got this device from up north, we felt that to be able to get maybe some of the other cars, because we didn't have things -- we were thinking of buying a scan tool from Snap On. And at that time, the Snap On piece, which I thought was the largest company out there -- when I go to SEMA, they would be there. Well, to be able to have that scan tool work on the different platforms, they had little Game Boy cartridges, and they plugged in that cartridge. It wasn't just plug it in and it figured everything all out.
Q The computer one you had, was that plug it in and it figured it all out?
A It only did that one vehicle.
Q So that was Chrysler's or --

A Yeah. Whatever was the program, that's all it would do. And then, if you wanted any of the other cars, you had to turn around and buy their little box that only worked that one other car. And then they gave you the software to be able to see what was coming across, because I'm pretty sure because they were in Detroit they were spending the money to buy the CAN chip to stick it on there, and then they'd have another one with the other licensed chip that was in there.
Q You talked a little bit about the CalAmp products today. Did you do an investigation yourself of how the CalAmp products work --
A No.
Q -- who are accused in this lawsuit?
A No. On all of the pieces, when I -- all my licensees, they're all my spies. Because when they find people that are doing things, it's taking business away from them. Such as what CalAmp is doing to Numerex, what they're doing to Audiovox, they're taking sales away from my current licensees that I love.
Q So all the licensees -- all the licenses that you went through earlier with Mr. Gilchrist, are those all for alarms, car alarms, the remote start devices?
A No.
Q What else do they cover?

A They cover the tracking units.
Q So if we look at just the vehicle bus products that your licensees make, what type of products do they make? Aren't the majority of those licenses for remote start?
A Yeah. As far as the aftermarket world today, 'cause it has evolved from where it was in 2004, 2002. Today, to my knowledge, almost every one of the data bus modules have got something related to remote starting the car, because the keyless entry is already in the car, so it's remote starting the car.
Q And in your four patents, you disclose functions like remotely starting the car, setting an alarm or unlocking a door; is that correct?
A In which patents?
Q In the four patents in this lawsuit, the '876, the '885, the '727 and the --
A I don't know. Off the top of my head, I don't want to make a qualified decision. If that's what's in there -- I'm not -- you're able to read it.
Q In your opinion, did you invent the bus discovery process?
A The bus discovery, sending one code then sending another code or reading the VIN number?
Q Correct.
A No, I did not.

Q And as you sit here today, are you aware of the J1978 standard that that sets out a bus discovery or a bus determination procedure?
A Yes. I've been aware of it, that one, for awhile.
Q Have you ever submitted that to the Patent Office in any of your patent filings?
A Yes, it has been.
Q Do you know if it was submitted in any of the patents in this lawsuit?
A Yes, it has been.
Q Let's go back and look at the patents and confirm that. If you can --
MR. KAUTH: May I approach, Your Honor?
A I'm not the industry expert to be able to go pick it all out. I was told they are in there. All the stuff that you were saying don't exist and all that prior art, it exists.
Q Let's start with Joint Exhibit 1 that's in your stack there.
THE COURT: Mr. Kauth, how much longer do you think on this line of questioning?
MR. KAUTH: Fifteen minutes.
THE COURT: And will that be the conclusion of your cross or --
MR. KAUTH: Yes.

THE COURT: Very well.
Ladies and gentlemen, we'll push on through the next 15 minutes of the cross examination.
Go right ahead.
BY MR. KAUTH:
Q If you could turn to Joint Exhibit 1. Mr. Flick, are you aware that typically on a patent, the prior art that was cited will be listed on the face page or on the next page --
A Yes.
Q -- as Mr. Gilchrist showed during opening?
A Yes.
Q And do you see the J1978 standard listed on the '876 patent?
A The way I was told and makes sense to me that when you want to look at an SAE J2058, that manual is there. You open it all up. I'm just saying, you open it all up, and it's got exactly what you're talking about all through it. Just because it isn't listed there doesn't mean somebody who actually pulled that document to read it didn't see what you saw, just 'cause it's not written right there. So I think if you go and pull all this prior art stuff, everything that you're saying is in those documents, just open it up. And it won't be just one little sentence. It will be all over the place.

Q But you can't point me to any spot in any of those documents, right?
A I'm not the attorney that went back and did all this research or whatever, but I've just been recently told it all is there. It is in those agreements. It is in everything that is published that is right here.
Q So do you recall at your deposition you told me back in the filing date of this patent in 2000, you weren't aware of J1978?
A You asked me if I was?
Q Correct.
A All right. I'm aware of the name of it. But what it does, what the specs are, whatever, I am not.
Q So you wouldn't have even had a copy that you could have produced in 2000?
A Not me. My attorneys. My attorneys are the one who filed this. They're responsible to go and get all of the -- whatever documents they need to show: Hey, here's possible prior art, things that the patent examiner needs to do. And then from that, the patent examiner's smart himself to be able to pull stuff out, 'cause you're going to an examiner that is a -- I would assume the patent examiner is a licensed or a degreed electrical engineer, plus has his patent degree that is in there. So therefore, my patents don't go over to

somebody that's a patent expert for drugs. It's going to somebody who knows what's going on to be able to find all this.

Q So does Omega contend in this case that its patents cover the J1978 bus determination procedure?

MR. GILCHRIST: Object to the form, Your Honor.

THE COURT: Sustained.

BY MR. KAUTH:

Q Do you have an understanding, based on what you invented, when you filed this patent, the '876 back in 2000, whether you also invented the bus determination procedure?

A I already said I did not. I did not invent send one code, then send another code or read the VIN number to determine the car.

Q And does the '876 patent discuss different buses in it or discuss sending different codes for things like locking and unlocking and remote alarms?

A That I could not tell you.

MR. KAUTH: Nothing further, Your Honor.

THE COURT: All right. Thank you.

If you have a brief redirect we can do it now, Mr. Gilchrist. or if would you prefer, we can do it after the lunch break.

MR. GILCHRIST: I'd prefer after the lunch break.

THE COURT: We'll do that.

All right. Ladies and gentlemen, it's 12:15. Is one hour sufficient for your lunch? Is that fine? Then, we'll be back at 1:15. Enjoy your lunch.

(Jury exits.)

The record should reflect the jury has withdrawn. We are in recess until 1:15. Thank you.

(Lunch recess 12:15 p.m. to 1:20 p.m.)

Folks, on the break, we had a note from one of the jurors.

And the record should reflect the jury is absent and the parties are present.

And this is from juror number 17, Mr. Micelotta, who is seated in the bottom row, second over from the left, and it states as follows. "In a previous job as a resident property manager, the owner of Lear Corporation lived in the building. I did know him as a manager/resident relationship," signed by the juror. It doesn't indicate anything further. Does either side desire to have Mr. Micelotta come out to answer any questions regarding whether or not this would affect his impartiality?

MR. GILCHRIST: No, Your Honor.

MR. KAUTH: No, Your Honor.

THE COURT: Al right, very good.

We'll proceed.

MR. GILCERIST: Your Honor?

THE COURT: Yes, sir.

MR. GILCHRIST: After we're done with Mr. Flick we'll be moving into some videotape depositions. The procedure that I've used in the past, Mr. Santurri will introduce them, call them as a witness. Some judges permit me to have you give an instruction reminding the jury that it is evidence and that both sides have designated -- because sometimes there's confusion why we put certain things in a video.

THE COURT: I'm happy to tell them that, that the parties have designated the sections of the testimony that they're interested in having you hear--

MR. GILCHRIST: Yes, and both parties are --

THE COURT: I'm happy to do that.

MR. GILCHRIST: Thank you, sir.

THE COURT: All right.

Let's have the jury, please.

(Jury present.)

We are now on the redirect examination of Mr. Flick.

Mr. Gilchrist, when you're ready.

MR. GILCHRIST: Thank you, Your Honor.

REDIRECT EXAMINATION

BY MR. GILCHRIST:

Q Mr. Flick, do you recall when counsel asked you about whether you've licensed the '278 to anybody else?

A Yes.

Q Could you pull up the '278 which is joint exhibit number 5. Do you see when it was first issued?

A It was first issued in 2011.

Q Yes, sir. Do you see a prior publication data on that cover page?

A Yes.

Q And that's a number that the Patent Office gives it while it's still in the process?

A Yes.

Q Now, if you will take a look at Plaintiff's Exhibit number 99. And this is the license agreement with Numerex? Is this the license agreement with Numerex?

A Yes.

Q Okay. And if you will turn to Schedule A, and it should be up on the screen in a moment. On the second page of Schedule A, as we scroll down, do you see that application publication number listed on the Numerex?

A Yes.

Q Does that indicate to you the '278 was, indeed,

licensed to Numerex?
A Yes.
Q And when you add additional patents to your existing licensees, do you do so at times orally?
A Yes.
MR. GILCHRIST: That's all I have, Your Honor.
THE COURT: All right. Thank you very much.
Sir, you may step down.
All right, gentlemen. At this point in time is the intention to play some video depositions?
MR. SANTURRI: Yes, Your Honor. We're going to go ahead and call CalAmp's corporate representative, Mr. Chen, who is not here, and play his deposition.
THE COURT: All right. Before we do that let me give the members of the jury a brief instruction.
Members of the jury, you are about to see a videotaped deposition of a witness. A deposition is a witness's sworn testimony that is taken before the trial. During a deposition, the witness is under oath and answers questions and swears to tell the truth as they would if they were here. The lawyers for each party may ask questions of that witness, and a court reporter is present and takes down a verbatim record just as if the witness were here live and in court.
In this particular instance, the parties have

both selected portions of the deposition they would like included in that videotaped deposition. So the deposition you're about to see represents the select testimony from both parties, and that's the proper way to proceed. I just wanted you to understand the manner in which this testimony comes to you. You are to recall the testimony of the witness the same way as you would any witness who appears live, and you may accept it in its entirety, reject it in its entirety or accept part of it, whatever you deem to be appropriate.
All right. Thank you very much.
When you're ready.
(Video deposition of Gallin Chen played from 1:26 p.m. to 3:18 p.m.)
THE COURT: All right, very good.
That concludes the deposition.
And what we will do now, ladies and gentlemen, is take our break. It's a little bit late, but I wanted to give that to you all in one sitting. It's now about 3:20, so let's come back roughly at 3:30. It's a little bit shy of 3:20. We'll come back at roughly 3:30. That will leave us about a half an hour, maybe 45 minutes for the day . Unfortunately, I have another hearing later this afternoon in a different case, so we'll be in recess for about twelve minutes. Thank you.

(Jury exits.)
The record should reflect the jury has withdrawn. Please be seated.
In terms of the video depositions that are being played by either side, we will need a copy of the transcript. You can have it simply highlighted to reflect the testimony that appears on the video or if you have one redacted, whatever is easier, I just would like the Federal Circuit to have an easier way to view the testimony rather than having to watch the video. These things are not transcribed once the video is being played. It would be a heck of a burden. So if you could do that at your convenience prior to the end of trial would be fine. All right. Thank you very much. I'll see you back here around 3:30.
(Recess 3:20 p.m. to 3:35 p.m.)
The next video, how long do you anticipate this one going?
MR. SANTURRI: Well, we don't have any videos that are short enough to fit within the time frame we have, so we were hoping we could at least get it started.
THE COURT: That's fine.
MR. SANTURRI: Given how much both sides have designated, we do have a lot of video depo to get

through.
THE COURT: All right. Well, let's do that.
All right. If we could have the jury, please.
We will stop at -- let's go to 4:15. So if somebody would mind it, and then just stop at 4:15.
(Jury present.)
The record should reflect the jury's returned, and the parties are present.
Mr. Santurri, your next witness.
MR. SANTURRI: Your Honor, before we do that can I move a couple of depositions into evidence based on the depositions we just played?
THE COURT: Yes, sir.
MR. SANTURRI: Plaintiff's 39.
MR. KAUTH: No objection.
THE COURT: All right. 39 is admitted.
MR. SANTURRI: Plaintiff's 14, which is the Chen patent application.
MR. KAUTH: We object based on foundation and relevance. This is the publication and not even the actual issued patents and renew our relevance objection from the motion in limine.
THE COURT: All right. Exhibit 14 is which patent number? Is it a -- first off, is it a patent that's in dispute?

MR. SANTURRI: It's an application on which Mr. Chen is an inventor, and he discussed it significantly in his deposition.

THE COURT: And help me to -- let me do this, gentlemen, so we're not having this conversation open. Why don't whoever needs to be involved come up for a quick sidebar.

[Sidebar.]

THE COURT: All right. I recall the testimony when Mr. Chen's patent was discussed and there was reference to comparisons between it and the patent created by Mr. Flick, and it went back and forth. Help me to understand how that's relevant to the issues in dispute of whether there is infringement of these patents by any of your products.

MR. SANTURRI: Well, I think it's going to be relevant for purposes of validity. Mr. Chen essentially conceded that almost everything in his patent is also in Mr. Flick's patent. On the one hand, he swears to the Patent Office that it's valid and yet the same technology found years earlier by Mr. Flick is invalid.

THE COURT: All right. So to the extent there is a defense of validity relative to the patent, whichever patent it was -- I can't remember if it was the '885 or which one it was. To the extent there is

going to be a defense of validity as to the patent, your contention is that Mr. Chen, having the same or very similar technology makes it difficult for the defense to sustain a defense of validity as to the patent at issue, correct?

MR. SANTURRI: Yes, Your Honor.

THE COURT: All right. And I think that's a fair observation. The testimony was the testimony regarding the claim and the patent at issue and what appears in Mr. Chen's patent application. So I'll allow it. If you would like a limiting instruction as to the application, I will be happy to give one. I just need you to craft one and run it by opposing counsel.

MR. KAUTH: Okay.

THE COURT: All right. Thank you gentlemen.

MR. KAUTH: Thank you.

[End sidebar.]

THE COURT: All right.

Plaintiff's Exhibit 14 will be admitted.

MR. SANTURRI: One final exhibit, Your Honor, Plaintiff's 48.

MR. KAUTH: And we object on foundation, relevance, and privilege, Your Honor.

MR. SANTURRI: Your Honor, this was an e-mail correspondence that was discussed in the deposition.

It included several CalAmp employees, including Mr. Chen, and their counsel and basically related to trying to hide information about CalAmp's products for purposes of Omega not being able to review it.

MR. KAUTH: Part of the issue we have, Your Honor, is it's 17 pages long and I think no more than the first two to three pages were even discussed. And when you get further in the chain, Mr. Chen is not a recipient on that part of the chain and did nothing to provide a foundation for it.

THE COURT: I am willing to allow the portions of Plaintiff's 48 which were discussed with the witness during the deposition, but not the other pages, so I'll rely on counsel to select the ones that are there.

And I'm also willing to provide a limiting instruction to the jury so they understand that the statements of the non-party are hearsay and they're not offered for the truth. They're offered more for the response by the witness. Would you care for me to give that now or at a later time?

MR. KAUTH: Now would be fine, Your Honor.

THE COURT: All right.

Ladies and gentlemen, we hate to talk as if you're not sitting right there. We know you are. But there are rules that apply to the admission of evidence,

and we've all heard the term hearsay. Hearsay is a statement that is attributed to someone who is not a witness in the case and is not available for cross examination.

So, for example, in the deposition you just saw, there were some e-mails discussed with the witness where the person who was writing the e-mail, the comments attributed to that writer are discussed with the witness and the witness is asked his thoughts or views based on those comments.

The comments by the writer of the e-mail is hearsay. That is, he's not here. And it's an out-of-court statement not subject to cross examination or further exploration.

However, there's an exception hearsay, which is that those out-of-court statements which would otherwise be admissible are admissible to the extent that it demonstrates the witness's response to what he or she heard.

So you do not accept the e-mail comments by the writer for the truth of the matter. You simply accept them to understand the response by the person who is answering those questions. Does that make sense? Very good. That's the limiting instruction. Thank you.

With that limiting instruction, Exhibit 48,

the relevant pages, will be permitted.

Yes, sir.

MR. SANTURRI: And with that, we will go ahead and call Peter Hergesheimer. This will be a portion of his first deposition testimony.

THE COURT: All right. And ladies and gentlemen, we will stop that deposition at 4:15, because I have another matter I have to deal with, so counsel will just stop it, and we'll pick up with it again in the morning.

(Video deposition of Peter Hergesheimer played from 3:53 p.m. to 4:16 p.m.)

THE COURT: Thank you very much.

All right. We've paused in the deposition. We'll pick up with that tomorrow morning. Ladies and gentlemen, we need to start a little bit later tomorrow morning at 9:30, but we'll go through the full day. So we'll end at 5:00, so that will keep us on track.

So let me just advise you again as I did last night before we took our break, please do not discuss the case amongst yourselves or with anyone else and please refrain from any independent research. We look forward to seeing you tomorrow morning at 9:30. Please leave your pads in your chairs, and we will collect those again for you. Have a good evening and travel

safely.

(Jury exits.)

The record should reflect the jury has withdrawn.

Court's 4 is the deposition of Mr. Chen, which was played previously. And we'll have Court's 5 will be the deposition of the current witness once we've concluded presentation.

Is there anything else we need to take up this evening before we break for the day?

MR. SANTURRI: No, Your Honor.

THE COURT: There being no ayes, then I have a hearing behind you, if you all would feel free to collect your goods when you're ready. You can leave your laptops and all those things. It's a status conference, so they won't need a whole lot of space, whatever you're comfortable with.

(Adjourned at 4:18 p.m.)

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Reporter's Certification

I certify that the foregoing is a correct transcript from the record of proceedings in the above matter.

s/Koretta Stanford

Official Court Reporter
United States District Court
Middle District of Florida Date: April 7, 2016

UNITED STATES DISTRICT COURT

MIDDLE DISTRICT OF FLORIDA

ORLANDO DIVISION

OMEGA PATENTS, LLC,
Plaintiff,
v.
CALAMP CORP.,
Defendant.

Case Number 6:13-CV-1950

THURSDAY, FEBRUARY 18, 2016, 9:05 A.M.
CIVIL JURY TRIAL - VOLUME III (DAY 3)
BEFORE THE HONORABLE PAUL G. BYRON, AND A JURY
UNITED STATES DISTRICT JUDGE
ORLANDO, FLORIDA

COUNSEL FOR PLAINTIFF:
Brian Gilchrist, Esq.
Ryan Santurri, Esq.

COUNSEL FOR DEFENDANT:
Joel Kauth, Esq.
Eugene Chong, Esq.
Carrie Wozniak, Esq.
Charles Halloran, Esq.

*Proceedings recorded by mechanical stenography
Transcript produced by computer transcription*

I N D E X

Video deposition of Peter Hergesheimer...4
[continued]

Video deposition of Jeffrey Eiberger.....13
[played]

JOSEPH C. McALEXANDER, III:

Direct examination.....18

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PROCEEDINGS

(Jury not present.)

DEPUTY CLERK: The matter of Omega Patents, LLC versus CalAmp Corporation, case number 6:13-CV-1950-Orlando-40DAB. For the plaintiff, please.

MR. GILCHRIST: Brian Gilchrist and Ryan Santurri for the plaintiff.

THE COURT: Good morning.

MR. GILCHRIST: Good morning.

MR. KAUTH: Joel Kauth, Eugene Chong, Carrie Ann Wozniak, and Charles Halloran for the defendant.

THE COURT: Good morning.

All right. Do we have anything to take up before we call the jury in?

MR. SANTURRI: No, Your Honor.

THE COURT: Very good.

Let's have the jury, please.

(Jury present.)

The record should reflect the jury is present, the plaintiff and defendant as well.

Good morning, ladies and gentlemen.

THE JURY: Good morning.

THE COURT: I hope you had a pleasant evening last night. I need to ask you again if any of you have discussed the case with each other or with anyone else

or conducted any independent research? If so, please raise your hand. There are no positive responses, so we're ready to go. We will continue with the deposition of Mr. Hergesheimer, when you're ready.

(Video deposition of Peter Hergesheimer continues from 9:41 a.m. to 10:53 a.m.)

THE COURT: All right. That concludes the playing of this deposition. It's now almost 11:00. It's actually about ten minutes before 11:00. Let's take our morning break until 11:00, and we will push through until lunch after that. So we will be in recess for just a short while.

(Jury exits.)

The record should reflect the jury has withdrawn. All right. I'm jumping ahead just a little bit, folks. But in terms of when we get to the point where I will be advising the members of the jury on the construction of various claims is there any opposition to me providing each member of the jury a copy of 2.1, which is the instruction on those claims rather than have them write down the definition, something they can refer to as they go?

MR. SANTURRI: No objection from the plaintiff, Your Honor.

MR. KAUTH: No objection.

THE COURT: All right. We'll have copies made. Very good --

MR. SANTURRI: Your Honor?

THE COURT: Yes, sir.

MR. SANTURRI: For time purposes, we have another video. It's about 50 minutes. So when they come back, we figured could play that. It would take us about to lunch.

THE COURT: That's perfect.

MR. SANTURRI: And I will be calling Mr. McAlexander, our liability expert, thereafter. So we expect first thing this afternoon would be these definitions and then that testimony.

THE COURT: Very good, thank you.

All right. Thank you. We're in recess.

(Recess from 10:55 a.m. to 11:08 a.m.)

THE COURT: The record should reflect the jury is absent, and the parties are present.

You will have provided to you, if you don't have it already, the instruction on the claim construction. The one that's going to go to the jury is exactly what 2.1 is with the 2.1 taken out, so they don't see it as a jury instruction, they just see it as an instruction, and they'll each have a copy at the appropriate time.

All right. Is there anything to take up before we get started?

MR. SANTURRI: Just briefly, I think, Your Honor. There was an objection to a portion of the designation that the Court struck. What was left after the Court sustained the objection was part of an answer from a question that got stricken.

THE COURT: Oh.

MR. SANTURRI: And so, I think we had our videographer not leave in the answer, and we wanted to get clarification from the Court on whether the Court had intended for that.

THE COURT: It doesn't sound like I did.

MR. SANTURRI: Well, that was my assumption, but --

MR. KAUTH: I just wanted to clarify that that was correct.

THE COURT: All right. Can you direct me to the question and answer and I'll let you know what on earth I was thinking when I --

MR. SANTURRI: Do you want a copy, Your Honor?

THE COURT: That will be great, thank you.

Okay. All right. So what portion of the deposition are we referring to? This is Mr. Hergesheimer's deposition of April 22nd, 2015.

We're at pages 41 through 44.

MR. KAUTH: I believe the original designation was page 42, lines 4 through 19. And the order reflected that lines -- or page 42, lines 4 through 9, the objection would be sustained.

THE COURT: All right. It was 4 through 19, and I had sustained as to 4 through 9.

(Pause in proceedings.)

And the portion that's been allowed is 12 through 19?

MR. SANTURRI: Well, that's the question.

What was played was 12 through 19. And the question is were we supposed to also play 10 and 11?

THE COURT: I see.

Well, let me ask you this while we're all here together. What's the preference of the parties? Is it to have 10 and 11 played for completeness or does it matter? Because it seems to me that the question -- let me just put this in the record.

The question starting at line 4 on page 42 was, quote, based on your experience and education, would you -- would you agree that the ability of the LMU-3000 to query devices on the bus and receive response is performing control function with those devices? At lines 8 and 9 there's an objection, outside

the scope of the designation. The witness goes on to answer starting at line 10: I wouldn't call it a control function. It's a query process. The next question then starts at line 13: How would you define a control function? And then the witness goes on to define the control function.

I see your point. The witness has previously said that I wouldn't necessarily call it a control function. I'd call it query process. And the way it seems right now, that distinction is left out.

What was the objection to the line and page designation? It strikes me that I may have just either transcribed it incorrectly when I went through the process of writing the order.

MR. SANTURRI: I believe that it called for expert opinion testimony.

MR. KAUTH: Yeah. Calls for legal and expert opinions, relevance, calls for speculation.

THE COURT: I see.

MR. SANTURRI: Because I think the original question was more in the context of --

THE COURT: Right, based on his education, training and experience. That's where my ruling would have been based upon is that the question, as phrased at 42, lines 4 through 8, is predicating it upon his

experience so it's an expert -- presumably an expert opinion. The response of the witness just defining his interpretation of control function is his lay witness testimony regarding that, although he's an educated lay witness, and that's why I sustained as to the first part. But I see the point that -- that lines 10 and 11 clarify his answer at 12 through 19 to some extent.

Now here's my concern. If we read to the jury lines 10 and 11, they're going to have a hard time understanding the reference that that's relating to. If they simply hear, I wouldn't call it a control function. It's a query process. They need to hear something before that to understand that we're talking about the LMU-3000.

The balance of the question, as it's currently read, includes at lines 18 and 19 the witness saying, I wouldn't interpret control function that way. It's not how I view the control process, but okay. So he's leaving in some of his doubt.

All right. So the request is what, the defense would like to have what read that wasn't read?

MR. KAUTH: We would like to have -- I think for context -- probably 10 through 19, just to give them the whole bit of that portion.

THE COURT: Now, how do we accomplish that

since we played this portion or can we? Would you propose to read page 42, lines 10 through 19?

MR. KAUTH: That's what I would propose, Your Honor.

THE COURT: Is there any objection to doing that?

MR. SANTURRI: No. I guess, the question is how do we start with him explaining the control function.

THE COURT: I think what could happen in this situation is the parties -- one of the parties -- or I could read it if you'd like -- simply say to the jury that Mr. Hergesheimer testified regarding the ability of the LMU-3000 to query devices on the bus and receive responses in performing a control function and his answer is the following, and read 10 through 19, if you prefer to do that.

I don't know if they will make much sense of this. And, quite frankly, in light of lines 18 and 19, I don't know that it's necessarily to further elaborate on the witness concluding that he doesn't consider it a control function, he considers it a query process since he's already left at lines 18 and 19 some question in his mind about the distinction.

MR. KAUTH: I think the distinction in 18 and

19 is about the control function and I think for our case it's important that he considers it a query.

THE COURT: All right. I understand your point. All right. One way we could do this is I could simply say to the jury -- they don't need to understand the mechanics of how we're getting here -- that there's an additional piece of testimony from Mr. Hergesheimer that we'd like to offer for your consideration. It is as follows.

And from page 4 through -- page 42, lines 4 through 10 -- or 4 through 7, rather, to just read: Would you agree the ability of the LMU-3000 to query devices on the bus and receive responses to perform a control function of those devices and then you read 10 through 19 as opposed to based upon your experience, education, training, and so forth. Is that acceptable?

MR. SANTURRI: That's fine, Your Honor.

MR. KAUTH: Yes, Your Honor.

THE COURT: Who would like to read that?

MR. SANTURRI: I can read that.

THE COURT: All right. So just let them know that there's additional testimony you would like them to consider. It's from Mr. Hergesheimer's deposition. The question is, and you'll pick up at line 5, read to line 7; pick up at line 10, read to line 19.

MR. SANTURRI: And I assume we don't need to do a back and forth or --

THE COURT: No, just read it. Just read it to them.

MR. SANTURRI: All right.

THE COURT: Just let me know when you're ready. There's no hurry.

MR. SANTURRI: Your Honor, we're ready whenever the Court is.

THE COURT: All right. Thank you very much.

Would you call the jury, please.

(Jury present.)

The record should reflect the jury has returned, and the parties are present.

Ladies and gentlemen, Mr. Santurri, at this time for the plaintiff, will read an additional selection from the witness's testimony, Mr. Hergesheimer, who you heard from in the last video deposition. When you're ready, sir.

MR. SANTURRI:

"Question: Would you agree that the ability of the LMU-3000 to query devices on the bus and receive response is performing a control function of those devices?

"Answer: I wouldn't call it a control

function. It's a query process.

"Question: Okay. How do you define a control function?

"Answer: A control would be to manipulate something to -- to cause some type of action.

"Question: Well, isn't it causing a device to respond causing an action?

"Answer: I suppose it could be interpreted that way. It's not how I kind of view the control process, but okay."

THE COURT: Thank you very much.

When you're ready, your next witness, please.

MR. SANTURRI: Your Honor, Omega will call Jeffrey Eiberger by deposition.

THE COURT: Thank you very much.

(Video deposition of Jeffrey Eiberger played from 11:20 a.m. to 12:09 p.m.)

THE COURT: Thank you very much.

That concludes the depositions. It's now roughly five minutes after 12. Was one hour adequate for lunch yesterday? Was that all right? Very good. Then, we'll come back today at five minutes after 1:00. We'll be in recess until five after 1:00. Thank you.

(Jury exits.)

/////

The record should reflect the jury has withdrawn. The parties are present. We're in recess until about five after 1:00. Thank you.

(Lunch recess 12:10 p.m. to 1:15 p.m.)

THE COURT: Is there anything to take up before we call the next witness?

MR. SANTURRI: Not from plaintiff, Your Honor.

MR. KAUTH: Nothing from defendant.

THE COURT: All right. Can we have the jury, please. And I will start by reading the claims construction before the witness is called.

DEPUTY CLERK: Does that mean I will hand this out?

THE COURT: Yes, once they get seated.

DEPUTY CLERK: Okay.

(Jury present.)

The record should reflect the jury has returned, and the parties are present.

Ladies and gentlemen, we're going to give you a handout at this point in time. It's going to be entitled, Claim Construction for the Case. And once you all have a copy, I'll read it to you and explain to you what this is, and then we'll have the witness following this instruction.

(Deputy clerk distributes copies to jury.)

All right. Typically with instructions that are given during the course of the trial, I just give them to you verbally, but to save you from having to try to copy all of this down as I give it to, you will have copies to work with. And I'll read this so it will be in the record. It's entitled, Claim Construction for the Case.

It is my job as judge to provide to you the meaning of any claim language that must be interpreted. You must accept the meanings I give you and use them when you decide whether any claim has been infringed and whether any claim is invalid. I will now tell you the meanings of the following words and groups of words for the patent claims. For any words in the claim for which I have not provided you with a definition, you should apply their plain and ordinary meaning.

Claim term: Transmitter.

Court's construction: Radio frequency transmitter.

Claim term: Receiver.

Construction: Radio frequency receiver.

Claim term: Controller.

Court's construction: Electronic circuitry that performs one or more control functions.

Claim term: Data communication bus.

Court's construction: Wired connection for communication of digital messages among vehicle devices with each message including one or more device addresses.

Claim term: Multi-vehicle compatible controller.

Court's construction: Electronic circuitry that performs one or more control functions and can operate with one or more vehicle.

Claim term: Command signal.

Court's construction: Signal generated on the data communications bus for operating a vehicle device.

Claim term: Device codes.

Court's construction: Signal from a vehicle device.

Claim term: Enabling data.

Court's construction: Data related to at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

Claim term: Programming instructions.

Court's construction: Code which instructs the controller to perform an operation.

We'll mark my copy as the next's Court's Exhibit. Do you have it already?

DEPUTY CLERK: 8.

THE COURT: Great. That's Court's 8.

All right. With that, we are ready for the next witness for the plaintiff.

MR. SANTURRI: Omega calls Joseph McAlexander.

THE COURT: Thank you.

DEPUTY CLERK: Sir, if you would please step to the witness box and remain standing. Please raise your right hand. Do you solemnly swear, under penalty of perjury, to tell the truth, the whole truth, and nothing but the truth, so help you God?

THE WITNESS: I do.

DEPUTY CLERK: Please take a seat.

Sir, if you would please state your name for the record, spelling your last name.

THE WITNESS: Joseph Colby McAlexander, III. Last name is spelled M-c-A-l-e-x-a-n-d-e-r.

DEPUTY CLERK: Thank you.

THE WITNESS: You're welcome.

THE COURT: Thank you. You may proceed.

MR. SANTURRI: Good afternoon, Mr. McAlexander.

THE WITNESS: Good afternoon, sir.

THE COURT: Good afternoon.

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JOSEPH C. McALEXANDER, III, PLAINTIFF'S WITNESS, SWORN

DIRECT EXAMINATION

BY MR. SANTURRI:

Q Can you give the jury the benefit of your background? Actually, let's just start with your current occupation. Can you tell them by whom you are currently employed?

A Yes. I have my own company. It's a professional engineering company by the name of McAlexander Sound, Incorporated. It's located in Richardson, Texas about 20 miles north of Dallas. I'm the president of that company.

Q And what's the business of McAlexander Sound?

A It started in 1988 when I founded the company specifically around audio and video, developed designing, implementing, constructing systems that are involved with communication using audio and video. And over the last 14 years, it has also been involved directly in consulting with the electronics and electromechanical industry, focusing on patents and trade secrets, and also design consultation as well.

Q And have you been retained as an expert witness in this case?

A Yes, I have.

Q By whom?

A I have been retained by Omega Patents.
Q And how are you compensated for your time?
A I'm compensated on a per hour basis based upon the time I spend consulting.
Q Is your compensation at all based on the opinions that you provide in this case?
A No. I'm retained specifically to look at the facts and provide a non-biased opinion.
Q And can you give the jury the background of your education, starting with college?
A I have a Bachelor of Science degree in electrical engineering from North Carolina State University.
Q While you were at North Carolina State did you teach any courses?
A No, I did not.
Q After graduation, what did you do?
A After graduation, I joined the United States Army. I went through a four-year ROTC, so I joined as a second lieutenant and stayed in the military for three years finishing as a captain. And I had two primary assignments, one, running the New England Air Defense Command for the Nike Hercules nuclear program. And then I spent one year in Korea as the signal battalion commander operating a particular battery and handling all of its signaling communication, both wired and

wireless.
Q After the military, what did you do?
A 1972, I joined Texas Instruments as a design engineer working in integrated circuit design. And I stayed with Texas Instruments for 14 years through 1986 in various capacities of design and management and also running operations in their facility in Singapore for quality and engineering, and then finishing my career at TI in 1984 to 1986 as a manager for the quality and the training operation for what's called a wafer fabrication assembly process. It's where the integrated circuits are actually fabricated.
Q And what did you do after Texas Instruments?
A Became vice president of technology for a company in Richardson, Texas by the name of EPI Technologies and provided technology services to the electronic industry, specifically major clients like Allied Signal, military organizations, Sandia National Laboratories and others, testing and evaluating electrically and from an environmental standpoint various components that go into systems, including satellite communication.
Q And where did you go on to next?
A I then, around 1992, joined a company also in Richardson, Texas by the name of Cochran Consulting. And at that point, I headed up their consulting activity

focusing primarily on patents and that started my career, part of my career, working as a testifying expert.
Q All right, sir. Let's talk more specifically about the experience that you have that's related to the issues that we have in this case. Do you have any experience in microcircuits or microcircuitry?
A Yes. I have experience both in the design, the literal design, of the integrated circuits that go into microcircuits, as well as the testing and incorporation of those circuits in systems, including everything from small appliances to large main frame computers.
Q And how long have you worked in that technology field?
A The technology field totally, I've worked 43 years.
Q And do you have any memberships to professional organizations that also help with your experience for this case?
A I am a member of the IEEE, which is the primary electronics society for electrical engineers.
Q And have you -- as part of your past work have you consulted for or worked specifically on data bus systems?
A Yes, I have.
Q And can you give the jury a couple examples of your work in data bus systems?

A I've worked on data bus systems from a number of different ways. One, I was hired a number of years ago, probably about 10 or 11 years ago, by Toyota as what is called their 30(b)(6) witness. And that means that I had the responsibility for evaluating a number of their suppliers. I believe at that point it was six different suppliers, in evaluating the system components and designs that they were providing to Toyota for their data bus systems.
And at that point in time, since the designs were all proprietary, Toyota themselves were not even privileged to know what the suppliers were providing in terms of the design components, so they hired me to go in and actually evaluate and understand the technology and to provide input for them in several cases.
Q Any other relevant experience that you want to tell the jury about in the context of data bus systems?
A Well, I've also provided expertise in looking at various data bus systems that involve wireless and wire communication to some of the internal data buses, particularly the audio/video portions of the data bus systems in vehicles. And I have appeared and testified in probably about 12 different cases involving that alone.
I also participated this last year in looking at the

data bus management system within vehicles that specifically addressed speed and torque and looking at various aspects of how that information is analyzed, how it is captured, and how it is provided to the bus and how the determinations of some governing systems within vehicles are done, so performed that as well.

Q Are you also an inventor yourself?

A Yes. I currently have 31 patents to my name.

Q And do any of those -- the technology for any of those patents relate to the technology you're going to talk about today?

A Yes. A number of the patents are directly devoted to the design of memory integrated circuits that are then used in some of the control systems that are part of this case, specifically addressing storage mechanisms. And in that design, the designs always not only design what's the internal parts of a component, like a memory device, but also how it's had to interface and interact with the control. So I have performed that, and I have patents in that area.

Q I also have a number of patents, I believe it's around 14, that specifically are directed to GPS location, determination, looking at advancement and looking at how movement occurs. And I have -- as I said, I've developed systems with that and I've worked those

patents in with the military, with CSN, in particular, and several trucking companies for fleet management.

I also have two patents, as I recall, on what's called MEMS. It's the accelerometer that was mentioned in some of the testimony earlier today and -- yesterday actually, which are used to determine the acceleration or the degree to which movement occurs. The particular inventions I used were in airbag deployment vehicles so that if there was a pending crash then the accelerometer would change position and then deploy the airbags accordingly.

Q All right, sir. Have you participated in the preparation of patent applications?

A Yes, I have.

Q And have you been involved in the prosecution of patent applications with the PTO?

A Yes, I have.

Q Are you a patent attorney or a patent agent?

A No, I am not. I'm a professional engineer.

Q All right, sir.

MR. SANTURRI: Your Honor, at this time we tender Mr. McAlexander as an expert on the issues of the technology at issue, validity, and infringement.

THE COURT: Any objection?

MR. KAUTH: No objection, Your Honor.

THE COURT: We'll be so qualified.

BY MR. SANTURRI:

Q All right, sir. Let's move specifically to the area of inquiry that you worked on for this case. Can you start by explaining to the jury what you were asked to do?

A Yes. I was asked to do two things. One -- primarily two objectives. One is a number of documents and deposition transcripts and opinions and responses to interrogatories were provided in this case. I was asked to review those, including the patents that are at issue in this matter, as well as the file history, as the file wrappers that are associated with those patents, to basically come to an understanding technically of what the merits of the case were, what the facts were, and then provide an opinion as to infringement or non-infringement of the products that have been accused. So this also involved analyzing and looking at the actual products themselves, photographs of the products and schematics associated with them. And the second aspect, which will be covered later, would be responsive to any arguments or positions that might be taken by the opposing party with regard to the validity of the patent.

Q All right, sir. Let's start by having you walk

through one of the patents at issue today. We'll start with Joint Exhibit 1, the '876 patent. You should have a copy there in front of you, and I'll put a copy up on the screen for the jury. You can start by explaining to the jury what we're looking at here on the first page of the '876 patent.

THE COURT: Would you identify the Joint Exhibit, that's the '876, please, for the record?

MR. SANTURRI: Yes, Your Honor, Joint Exhibit 1.

A So Joint Exhibit 1 is the face page or the title page of the U.S. patent 6,346,876. I believe we agreed that we'll refer to that as the '876 patent.

BY MR. SANTURRI:

Q All right, sir. And if you can help us orient the jury a little bit at what we're looking at. I'm going to start with this section in the right -- top right-hand corner on the first page of Joint Exhibit 1. Can you tell us what we're looking at there?

A Yes. On the title page, the upper right corner is reserved for identification of the patent number and the date in which the patent was issued, which was February the 12th, 2002.

Q All right, sir. I'm going to scroll down some, still on the first page of Joint Exhibit 1. And we have

an explanation of what's called Related U.S. Application Data. Can you tell us what that is?
A Yes. Patents are filed -- as you can see, on line 22 above the red line, this one is filed May 31st of 2000. But it is filed with a relationship to some prior patents and applications that were filed. And so, you can see in this line that's marked number 63, it states that the '876 patent is a continuation-in-part of an application that now is patent number '147, 6,275,147. And that patent is a continuation of another application, which is now issued as patent number 6,011,460. And that '460 patent is a continuation-in-part of a further application that now is patent number 5,719,551. So what this says is there's a relationship between this patent being filed and predecessor patents.
Q And can you explain to the jury briefly what a continuation application means?
A A continuation application means that the original application is almost mirrored in the new application. In other words, the diagrams are the same. The written description is the same. The only really distinctive feature in a continuation patent is the claim or new claims. What is shown here in line 63 are what's called continuation-in-part or CIP applications. A CIP or

continuation-in-part application, preserves much of what was in the original, but it also may add other additional factors in terms of what was produced as the new patent.
Q All right, sir. Moving down slightly -- I'm still on the first page -- we have a section called References Cited that I think carries over to the second page. Can you explain to the jury what that section provides?
A Yes. This is a list of the references that were considered by the Patent Office, some of which were provided by the patent agent on behalf of the inventor and some of which were actually cited and provided by the Patent Office themselves. So this provides a list of those references that were part of the file history that were reviewed and considered by the Patent Office.
Q All right, sir. Now, when you were provided with the task of providing your opinions in this case, can you walk the jury through how you approached analyzing each patent, like the '876 that we have right here?
A Yes. As the video that I know the Court was able to allow the jury to see early on went through the different parts of a specification of a patent. And so I don't want to repeat what was already put forward, but I just would perhaps just present how I walk through a patent to understand what it is all about.

I start at the title page. It's the front page of the patent. And from this, I gain insight not only as to the patent number and the date in which the patent issued and who the inventor was, but from the title, which is on line 54, I get at least an insight as to which the patent might be addressing. And then, when I follow down into the Abstract, the Abstract gives a synopsis overview of what the inventor is seeing as part of this invention, and so I read that.
The next thing that I do is I notice that it shows right under the Abstract that there are 51 claims at the back of this patent, the actual invention, and that there are eight drawing sheets. So what I will do now is I will turn to the drawing sheets and begin to, from a top level, get ahold of an understanding of what the patent is directing its attention to.
And you will notice -- for instance, we'll start with Figure 1, as I walk through this patent, I will notice that the patent is directed to having a multi-vehicle compatible controller, which has a reference number 25, which is shown here. And that cooperates in conjunction with a transmitter and a receiver, which is shown at 31 and 32. And it also has communication to a bus, which is called a vehicle data communication bus attached to which are various vehicle

devices.
So that gives me a general understanding of what the patent is directed to. It's basically a controller -- it's a controlled system that has a controller that communicates across a bus to other vehicle devices and has an ability to transmit and receive information outside of itself.
So then, moving down to Figure 2, I noticed that the next several figures, which are Figures 2 and 3, as I recall, you will notice that it's similar to what was in Figure 1. The major distinction is here, the arrow is pointing down from the bus interface drive to the bus. And so you will see in Figures 2 and 3 that that is directed to the information transfer that's taking place from the vehicle, the multi-vehicle compatible controller, to the bus so it defines its direction.
If you look at Figure 3, this is the command signal table once again sending code out. So this is basically how the vehicle device identifies code that goes out to the bus.
If we look at Figure 4, Figure 4 now, see that the arrow is reversed. So now, the description that we'll look at later in the patent is now talking about -- is going to refer to data being communicated from the bus back to the controller.

And if we'll look at Figure 5, we will see that it's reading. When a controller transmits something to the bus, that's called writing or command. And when it receives something back from the bus it's called reading. And so, this is the read command.

All right. Let's go to the next one. This is also a read code. And so once again, if I look at Figures 4, 5, and 6, these are all discussing information coming from the bus back to the control unit.

Now, moving down to Figure 7. Figure 7 is another embodiment of the illustration of the ways in which the invention can operate. In this case, you will see that -- what is called a multi-vehicle compatible adaptor. What is inside the adaptor -- the CPU, the signal memory, and the bus interface -- is very similar to what we talked about on the first figure, which is the bus multi-vehicle compatible controller. The distinction here is in Figure 7, they're taking the multi-vehicle compatible controller and putting it in a housing 70, putting it all as one unit.

So by going through the title page and then the figures, I begin to get an understanding of what the patent is about. The next thing I do when I go through my process is I go directly back to the back of the patent, which is where the claims are found.

Q Mr. McAlexander, before we go there, you used the term a moment go, embodiment, that's kind of unique to the patent world. Can you explain the meaning of the term embodiment?

A Generally, it means an illustration. I have a number of patents, and I've written a number of patents myself. And the Patent Office requires that you have to show at least one way in which the invention can be implemented. Obviously, it's impossible to show every way in a certain number of pages, but you have to at least show one way. And so having an illustration, or what's called an embodiment in the patent lingo, that is basically a way in which the inventor says the invention can be used.

Q Is it possible to have multiple different embodiments described in a single patent?

A Yes. You can have multiple embodiments in a single patent. If you look at the -- for instance, the first several figures that are directed to information going from a controller to the bus, that can set up a set of patented inventions. Receiving or reading information back from the bus can be another set of patents -- of patented claimed inventions. Having combinations of the two or looking across the figures and seeing things. There are a number of ways in which more than one

embodiment can be illustrated.

Q All right, sir. You mentioned that next you typically go to the claim. So let me head down to page 16 of Joint 1. We're at column 11. All right, sir. Can you start by explaining to the jury the type of claim that we have in Claim 1 of the '876 patent?

A Yes. The type of claim that has been addressed earlier in the testimony, this is called an independent claim. I think, in fact, in the opening this was addressed. Claim 1 is an independent claim, which means it stands on its own. And in order to find infringement, I have to look at what is required by the claim and have to find that everything that's required by the claim is found in the infringing product. So Claim 1 is a stand-alone independent claim.

As compared, for instance, to Claim 3, Claim 3 would be an example as a dependent claim. A dependent claim depends from another claim. For instance, Claim 3 says a control system, according to Claim 1, which means in order to practice Claim 3, to find infringement of Claim 3, I have to find that the product that's accused includes everything that's in Claim 1, plus the additional factors that are required in Claim 3. So that's the different types between independent and dependent claims.

And there's another way to look at this, too. I'll call it the categories. There are apparatus claims and there are method claims. Method claims define the steps by which something is performed. An apparatus claim is directed to the structure. As you will see in Claim 1 and Claim 3, both of these are directed to a control system, in other words, the structure, so they're apparatus claims.

Q All right, sir. Now, once you've taken a look at the figures and the claims, what do you typically do next in your process?

A Well, now, the next thing I do in the process is I look at the claim itself before I go back and review the specification, and I note that if we look, for instance, at Claim 1, Claim 1 starts a control system and then ends at around line 48 with the word vehicles with a period. Each claim is an independent sentence. So, Claim 1 is a single sentence that starts with a control and ends with vehicles.

Also, there's two ways to look at the claim. The claim is divided into two components. One is called the preamble, which is the first part, and the second part is called the body. And the body of the claim defines the elements that are required for the claimed invention. The preamble generally sets forth the

environment within which the invention will operate. So there's two different parts of the claim, the preamble and the body.

So in the body of the claim, what is required is a transmitter, a receiver, a multi-vehicle compatible controller, and then there's a requirement for something that the controller does. So generally, that's an overview of what we'll be looking for in terms of any infringing product.

Now that I have an understanding of what the claimed invention is, then I go back and look at the specification, the written part of the specification, to get some flesh or meat to figure out exactly how the inventor saw his invention being used.

Q All right, sir. If you want to walk us through the portions of the written description that you would go to next after you've taken a look at the claim themselves.

A Which -- can I just have a little ref-- what page is this?

Q This is page 11. I'm at column 1 --

A Okay.

Q -- of the '876 patent, Joint 1.

A All right. On this particular page at column 1, the patent has been introduced first by indicating what the Field of the Invention is. This, again, sets forth an

environment. The field is to a remote control system and related methods for vehicles. So it's a remote control system.

It is followed in the next section by what is called the Background of the Invention. And in this particular section, the inventor sets forth his understanding of what the state of the art is at the time, what the concerns were at the time or what was not being able to be accomplished.

And once that is established then he sets forth in the next section, which begins at the bottom of column 2, and he begins what's called a Summary of the Invention. Here, he sets forth some of the aspects of his invention. Again, the claims at the back define the invention, but this, the summary, just summarizes certain aspects of the invention.

And then, we notice, for instance, if you will look column 4, around line 10, notice that it says that the multi-vehicle compatible controller may in some embodiments also be for reading signals on the data communications bus. This reading function may also have multi-vehicle compatibility. So it's set forth in the summary prior to this that part of the aspects would be writing to the bus and there are other aspects of the invention which would be reading from the bus.

And then we drop down at the bottom of column 4. The inventor sets forth what he calls a Brief Description of the Drawings. And so the different drawings that I looked at earlier with the Court, this is a sentence that describes what each of the figures are about.

And then, lastly, we move at the top of column 5. And this is where the inventor sets forth a Detailed Description of the Preferred Embodiments. So this is where he will now go through Figures 1 all the way through the last figure, which is Figure 8. And he will with written description describe what the figures are, what they do, how they're conformed, how they cooperate with each other and, in some instances, exactly how they perform their operation.

Q I see in that section we have bolded numbers in the text. Can you explain to the jury what that refers to?

A Yes. For instance, if we look at line 25, it refers to Figure 1. And then it gives us a number, for instance, 25, that's related to what's called the multi-vehicle compatible controller. So if we could maybe go back and look at Figure 1.

And in Figure 1, you will see the reference number 25 here that refers to this box. And the box is labeled Multi-Vehicle Compatible Controller. So the bolded

numbers within the written text are numbers that are associated with particular aspects of the figures and are sometimes referred to as reference numbers.

Q All right, sir. You mentioned that after you take a look at the claims, you look back up into the written specification to try to find further description for those claims. And you pointed out the transmitter, receiver, and controller, I think, were three elements that you pointed out in Claim 1 of this patent?

A Yes, that's correct.

Q Could you -- do you want to direct me to a section where we have a little bit of a description about each of those aspects of Claim 1?

A If you will look at column 5, beginning, for instance, line 35, in that paragraph this introduces the transmitter 31 and the receiver 32. So those are identified. There's a number of different places in the specification, it's directed to that. The multi-vehicle compatible controller, 25, is identified in a number of different locations as well, so those are the three primary components.

Q All right, sir. And are there any portions of this specification that are important for the specific issues that we're going to go over today? For example, in this case with this particular patent with the command

signals, can you take us to a couple of important sections of the spec to understand that a little better?
A Well, I would point to probably the entire specification. But we can look, for instance, at column 6, which is right across from where we are at around line 52. It says, "The multi-vehicle compatible controller..." looking at this section down "...25 also illustratively includes a bus interface 41 cooperating with the CPU 36 to perform at least one of reading signals from the data communications bus 30 or generating signals on the data bus."
So this goes to the aspect of the micro-controller or the multi-vehicle compatible controller through its bus interface generating information to a bus, sending code to the bus, or receiving code back from the bus.
Q All right, sir. Now, we've walked through it with the '876 patent. For purposes of your analysis, did you go through each of the four patents that we're going to talk about today in the same way?
A Yes, I did.
Q Did you also take a look at the file histories for the patents that we have at issue?
A Yes. For each one of the patents at issue, I looked at the file histories.
Q And what was your purpose of review of the file

histories?
A One of the purposes of my review of the file history is to review the interchange of information and communication that occurred between the patent agent/owner and the Patent Office itself to make sure that my understanding of reading the claims in light of the specification was consistent with what was described or communicated between the Patent Office and the patent owner, look at it for consistency and also for an understanding of the process by which the patent went from filing to issuance.
Q All right, sir. Now, can you explain to the jury what the person of ordinary skill in the art is in the patent world?
A In the patent world -- the Court, for instance, has provided to the jury now the claim construction, the terms that the Court has defined for us. Those terms I have to adopt. And I do adopt them. And for all of my analyses, it will be done with a view of understanding and consistency with the Court's claim construction.
There are two aspects. Claim construction, as I understand from a technical viewpoint, has to be -- the interpretation must be through the ideas of what's called the person of ordinary skill in the art.
It's a hypothetical person, but it's a person that

one believes would be the type of person that when reading this particular patent specification that he would be the kind -- he or she would be the kind of person that this patent would inform him of what the invention is and how to practice the invention.
So I've defined that person as a person who has at least a bachelor of science degree in a field such as electrical engineering or automotive engineering, something of that nature so that with an electrical and system aspect to his educational/academic training, and then a person who has several years involved in telematics.
Telematics is basically real time communication of event-related information, wirelessly or wired, but particularly wireless. And the telematics aspect of it, several years can be involved in understanding protocols, data bus management, control system theory, wireless and wired communication, and basically those kinds of topics, so several years of experience in that related area and an academic degree.
Q All right, sir. And once you familiarized yourself with the patents at issue did you move on to study the products that are accused of infringement in this case?
A Yes, I did.
Q And I have a --

MR. SANTURRI: If we can shift to the Elmo, madam clerk.
BY MR. SANTURRI:
Q I have a list you prepared of generally the types of information you looked at in this case. Can you explain to the jury how you went about getting yourself familiarized with the CalAmp devices in this case?
A Well, as I mentioned earlier, there are a number of different documents that have been produced in this case, both by the plaintiff and the defendant. So I reviewed the documents that were produced, also went online, did some individual web search analysis for products that were available and out there, looked at data sheets, particularly product specifications on the accused products, photographs that were taken of the internal schematic or representation of the products, as well as the schematics themselves.
A schematic is an electrical diagram of the actual way in which the components are interrelated and interconnected together electrically. And then additional product documentation that CalAmp provided, as well as testimony, such as what has been heard for the last two days here.
Q And, sir, I have a list of the folks for whom you read their deposition testimony. Does this look like

the list of folks you read in order to form your opinions about the products at issue?
A Yes. I believe we've heard testimony that was played by video deposition here in the last two days of Pete Hergesheimer, Jeffrey Eiberger, and Gallin Chen. This is some of the deposition testimony of persons that I did review.
Q All right, sir. Once you reviewed both the claims and the accused products, were you able to formulate opinions as it relates to this case?
A I was by following the two-step process for a finding of infringement. My understanding is first the claims have to be properly construed. The Court has provided that information. And then, I take those as-construed claim terms so that the claims that I'm looking at now have been properly understood, and then I apply them to the alleged products and find a determination as to whether or not each and every element that is required by each claim is found in those products. That's the process that I undertook.
Q All right, sir. And did you reach any opinions as to the infringement of the accused products?
A Yes, I did.
Q All right. And were you able to determine whether each of the accused products infringes the asserted

patents in this case?
A Yes, I was able to.
Q And what was your conclusion?
A My conclusion was for the four patents that are at issue in this particular case and for each of the claims that have been asserted that the accused products infringe each of those claims.
Q All right, sir. Let's delve into that a little more deeply, and I want to start with an overview slide. Can you explain to the jury what the demonstrative that we have on the Elmo is showing them?
A Yes. This is one of the demonstratives that I had reviewed during my analysis. This shows an overall system, a wireless communication system. The messaging unit, the CalAmp messaging unit, is shown at the far right. It shows a wireless communication capability back to an LMU manager or server. And basically, this allows back-in applications that are shown here to run on the server in such a way that data can be analyzed when it is transmitted from the CalAmp messaging unit. And it also provides through the PULS system the ability to download every firmware software that will be loaded as firmware in the LMUs.
Q All right, sir. And for the purposes of today, this is the product that we're talking about, right,

this CalAmp LMU?
A That is correct.
MR. SANTURRI: Actually, madam clerk, can I have the laptop back?
BY MR. SANTURRI:
Q All right, sir. I'm going to pull up Plaintiff's Exhibit 1, which is in evidence. Is this one of the documents you reviewed for purposes of your analysis?
A Yes. This was specifically directed to the 3000.
Q And how did you use this document in your analysis?
A I used it first as an overview, as an understanding of the LMU products. This particular one is the LMU-3000. And so within this particular brief, it identifies some of the features that are incorporated in the LMU. It's a specification, if you will, that informs the public on what the LMU does.
Q If I can direct your attention to the second page of Plaintiff's Exhibit 1. Is there any data on this market material that was helpful in forming your opinions?
A One is in the first column under the specifications for General. It indicates communication modes. This would be the wireless communications, such as cellular CDMA. There's also indication that it provides location technology using GPS. And then, it goes through some

analysis with regard to the cellular communication itself looking at the various operating bandwidths, as well as the different technologies that are required for the protocol. So these are a few of the areas.
I also noticed that Key Features is that it shows OBD-II interface. This is the on-board diagnostic II interface, so it says that it's compatible with that. And it also further identifies the packet-based cell communication here and shows that there is an internal GPS antenna. There's an internal cellular antenna. So it's a stand-alone LMU-3000. It's self-contained in terms of a wireless module, as well as a GPS module. Those I get just out of looking at this data sheet.
Q All right, sir, I'm going to invite your attention to Plaintiff's Exhibit 60. And, in particular, can you help us understand how one installs the accused products in a vehicle?
A Well, what is shown on this particular presentation slide is it's entitled, Where is it Located? And the two circles are identified as general location of the OBD-II port. The systems that are designed in the cars have communication data bus and vehicle data buses. And so periodically, under the hood, as well as under the dashboard there are ports that you can connect to for either after market or for testing diagnostics.

And this shows that there are some locations there for ports that can access for the OBD-II and, therefore, can send and receive information off of the data bus.
Q All right, sir. Now, you also looked at more specific electrical schematics, right?
A Yes, I did.
Q And what was the purpose of your review of those documents?
A The electrical schematics are the fundamental aspect of the actual electrical design within each of these systems. So by looking at the electrical schematics and understanding that, I can not only see what the major components are, I can see the actual products that are used, in other words, the name brand that's used. I can understand from the data sheets what those particular components are. And then, it also provides in the schematics an electrical connection map. So I can tell exactly what is connected to what. And, therefore, I can reach some understanding as to how these various components in the physical system cooperate with each other.
Q All right. I'm going to put on the monitor Plaintiff's Exhibit 11, which is in evidence. Is this one of the electrical schematics you looked at, sir?
A Yes, it is.

Q All right. Now I think we heard Mr. Hergesheimer discuss earlier in deposition testimony that there are three different boards that make up this LMU-3000. Can you walk the jury through localizing each of those boards using Plaintiff's Exhibit 11?
A Well, there's three different aspects that are located on the boards in the system. There is an LMU board that includes both the management unit controller and the wireless. There's also a second board that handles the GPS. And a third board that handles the OCD, the diagnostic board that communicates to the bus itself, so these are the three separate boards.
Q All right. Can you provide me with the Bates label, and we'll go to Exhibit 11 where the LMU board is shown in more detail.
A Sure. Go to the Bates label 714.
Q All right, sir. And is there a specific portion of this that I can blow up so the jury can actually see this document?
A Yes. You can blow up the center. We can start with that.
Q All right, sir. What are we looking at in the center of page 4 of Plaintiff's 11?
A This is one of the micro controller chips, an integrated circuit trip that performs the functions of a

microcontroller and it's defined in the specification as their microcontroller. It's labeled at STM-32F. This is a 32-bit microcontroller manufactured by ST Microelectronics. If you look inside, you'll find it uses what's called an arm core. And this is where all of the process and the primary brains, as Mr. Flick had described, this is one of the primary brains of the entire system of the CalAmp 3000.
And this provides the basically network communication and control both to the wireless transmitter receiver for communication cellular -- can't even pronounce it -- by cell phone. It also provides the connectivity to the GPS module on a separate board and also to the on-board diagnostic board on a third board.
Q All right, sir. There are lots of red lines extending from all four sides of this STM-32F microcontroller. Can you explain to the jury what those red lines signify?
A The red lines signify wiring connectivity, electrical connectivity between a particular electrical pin or input or output on the board, or on the chip, that then is conveyed to some other portion of the chip.
As an example, we'll notice that there's one here that you might be able to see. It's called VDD. This

is a power input. Then, you will see things labeled like, for instance, PC, PA. There's a PC on the other side. These are called ports. Basically, they're the A-ports, the B-ports along the top, and the C-ports. Ports represent input/output interfaces to this particular controller device. The electrical lines, the red lines that connect to those, go to some other part of the board.
Q All right, sir. Now, on this particular page of Plaintiff's 11, can you show us how this ST microcontroller communicates with the transmitter and receiver in the LMU-3000?
A And by transmitter and receiver, this would be the wireless communication. It's called a transceiver, which is located on the same physical board as the -- as this particular STM chip. And if you can go, for instance, over to the right of this diagram. And specifically if we look in this area, these are wires that are coming off of the -- I'll wait until you finish.
Q Too far?
A These are wires coming off of the controller and then they communicate through PB-10 and 11. This particular section is the receiver and the transmitter. RX is receiver and TX is transmitter. And then, if we

look at -- back up one drawing to 713, Bates number 713.
You see on the left side here, this is where those connections, PB-10 and 11 for the receive and transmit, transmit/receive, that's where they come into this particular module. And if we just track over a little bit to the right, you will notice that it goes into another device. And this, the output of that device, which is here called RF-out, if you will track it a little bit further, this goes to the antenna.
And so this is the communication, then, on the same board from the STM multi-vehicle controller, that is one of the controllers, and it communicates here to the wireless module for communication using CDMA or other technology through the cell phone network.
Q All right, sir. Now, I notice on Plaintiff's 11 there's already some handwriting on this document. Do you know where that's from?
A As I recall, this was part of the deposition for Mr. Hardee and that he wrote that information on there.
Q And Mr. Hardee is an employee of CalAmp?
A That's correct.
Q All right. So you showed us how the LMU microcontroller connects to the radio. Does it have other -- are there other portions of -- other boards that it connects to as well?

A Yes. If we go back to 714. And in the upper right corner, in the upper right corner coming out of the micro controller are some lines here that you will notice are GPS. And so the upper two lines here are labeled as GPS transmit and GPS receive. So these lines, if we'll now look at the GPS board, they interconnect to that particular module.
Q And can you direct me to a page within Plaintiff's 11 for the GPS module?
A Look at Bates number 716. And in particular -- yeah, you're -- this area here, if you can enlarge that some. So here, we have the GPS transmit and receive lines that I showed coming out of the control module. They then go from that board to this board, and then this connects into the GPS module. And it's done through a particular connector that connects -- this rectangle that shows six pins, that's an electrical connector that connects the two boards together. And then, if we track over to the left, this is the antenna, then, that provides the communication. So this is the interconnection, then, between the controller and the GPS board.
Q All right, sir. Does the LMU microcontroller also connect to the OBD controller?
A Yes, it does.

Q All right. I'm back on page 714, page 4 of Plaintiff's 11, can you direct me to the section that helps us there?
A Sure, bottom right corner just above the legend, and enlarge this just a little bit more. So we see two lines that come from the microcontroller and they're labeled as PA-23, but specifically they're labeled as OBD. So these particular lines go to another connector, the J-1 connector. It's another 6-pin connector. And they, then, are connected from there to the OBD board.
Q Do we find that on Bates label 730?
A It's on two different ones. 730, it's in the lower left corner. So this is where it comes into that board from that connector. And this particular electrical diagram on this sheet talks about the power supply connection.
If we go to the next sheet, which is Bates label 731. On this sheet we now find -- can you go from the top? That's good. What we find on this sheet is -- the number of connections on this particular portion of the controller is fairly large. So what the engineer has done in the diagram is he has taken that component and he has divided it into five different instantiations and shown the connections to it. But basically, this is the on-board diagnostic controller that performs the

interface to the data bus.
Q So what Mr. Hardee labeled as U17-A through E, that's all one component; is that right?
A That's the one that he labeled -- yes, that's correct. That's all one component. And then he has also identified, which I agree with, the memory, storage memory that's located on that particular board, which is 5 and 7, which are these. And he has also identified what he's labeled as -- yeah, he's called it the microprocessor OBD layer. And then in the bottom section that are provided the interfaces for the different types of bus structures.
So on this type of a CalAmp 3000 unit, it provides for this controller -- these controllers to have access to multiple bus types labeled as ISO -- for instance, ISO-K CAN, which is the standard since about 2008. The J1850 PCLS with modulated bus which Ford used and the J1850 VPW that GM used. So there are a number of different bus architectures that are comprehended for communication by this CalAmp 3000 device.
Q All right, sir. In addition to the components that you've listed, are there also places where we can see what we heard in some of the deposition testimony as a serial port on this device?
A Yes, there are.

Q Can we visualize that at 714?
A That's correct. That's where it's at.
Q Okay. Where is that at on 714?
A That is shown on the right side in the middle, labeled as J-2.
Q All right, sir. Now, in addition to looking at the electrical schematics, did you also take a look at the internal photographs of, in this case, the LMU-3000?
A Yes, I did.
Q Going to pull up Plaintiff's Exhibit 3, which is already in evidence. Can you explain to the jury what we see on Plaintiff's Exhibit 3?
A Plaintiff's Exhibit 3 is sometimes referred to as the LMU board for the 3000. And the component that is in the middle, the black square component, that's that STM 32-bit microcontroller. So this is the 32-bit microcontroller here. Secondly, if we look up above it on the same board, this larger area that is covered is the RF wireless communicator for the cell phone. So this board includes -- as shown in the diagram of the schematic that we already went through, the photograph affirms what the schematic had said.
Q We also have a component and it's on the right corner called a serial flash. Can you explain to the jury what that is?

A Yes. That is this component here. That is labeled -- that was labeled by Hergesheimer. And I agree with him that is a flash device. It is a memory device. It is a type of memory. It's a non-volatile memory. Once you put firmware into it, it stays even if you turn power off.
Q And on the other side we have what was labeled as a serial port?
A That is correct. And if you remember on the schematic, I identified that that serial port was J-2. There is the number on the performance board. So there's a one-to-one correspondence with what was stated in the schematic as it has been instantiated on the actual board.
Q All right, sir. I'm going to pull up Plaintiff's 4 in evidence. Can you explain to the jury what we see at Plaintiff's 4?
A This is the second board in which the schematic that we discussed earlier about the GPS, that schematic is located on this board. And so, you will see a number of components that are shown here. But this module here, it's covered, is the GPS receiver module.
Q And does this GPS receiver module talk to the LMU board that we just looked at?
A Yes. That is connected through the connector, which

is shown here. So that board will actually connect and sit in conjunction with the LMU board.
Q All right, sir. I'm going to put up Plaintiff's Exhibit --
A In fact, can we go back to that for just a second?
Q Yes, sir.
A Just wanted to indicate that I mentioned this is the connector. It's called J-3, which is what was shown on the schematic.
Q All right, sir. Now, I have Plaintiff's Exhibit 5 in evidence. Can you explain to the jury what we're looking at here?
A Yes. This is the OBD board, the on-board diagnostic board. And you will see a number of things. For instance, this. There actually is a cover that is over top of that. When you remove the cover, this strap goes between these points, provides some additional support. Most RF modules are required to be covered so that they don't interfere with other surrounding aspects of an electronics system. But this is the OBD board, which I have shown previously. It's connected back to the LMU board. And over here, has been labeled by Hergesheimer the OBD interconnect. And this basically is the interface that goes to the actual vehicle bus.
Q And in the center there we have U14. Did we talk

about that on the schematics?
A Yes. That's the U14 chip in which is the microcontroller. It's actually an array. It's a logic array that provides the control functions for generating and receiving information to and from the vehicle data bus.
Q All right, sir. Now you pointed out the OBD interconnect we have shown at Plaintiff's 5. If I can pull up Plaintiff's 60 again for a moment, can you explain what we're looking at, at page 5 of Plaintiff's 60?
A This is the connector or connection point that plugs into the bus, vehicle data bus.
Q So this port is what would accept the metal terminals that we saw on the prior exhibit?
A Correct.
Q Plaintiff's 5?
A Correct.
Q All right, sir. Now, this just covered the LMU-3000. Can you remind the jury the relationship between the LMU-3000 and the VPOD?
A Yes. The OBD board, the on-board diagnostic board that's part of the LMU-3000, that has been represented in deposition as testimony that the LMU-3000 OBD board is then pulled out, put into a separate -- as a separate

component and in separate housing and then can be used with other vehicle LMUs that do not have the on-board diagnostic capability and, particularly, I believe it was the LMU 2600 and 240, I believe.

These are different device families that when you take those families that have a GPS and a wireless capability and you integrate that with the on-board diagnostic board, then you have additional systems that cooperate with some additional features, provide the same capability as the LMU-3000, just in a different framework.

Q All right, sir. I have Plaintiff's Exhibit 5 up again. That was the OBD board of the LMU-3000?

A Yes, that's correct.

Q And is it fair to say that the board we have here for the LMU-3000 is basically the board that's contained within the VPOD?

A Correct.

Q Now, can you explain to the jury the difference between the LMU-3000 and the LMU-3030?

A The construct of the LMU-3030 is very similar to what is in the LMU-3000. The primary, primary difference is that on the OBD board that the component that was an array, a logic array that was used to provide the control aspect for driving and receiving the

data bus, information to and from the data bus, was substituted by another STM 32-bit microcontroller.

So basically, the microcontroller that was used in the 3000 LMU is the same microcontroller that's in the 3030 LMU. But they've also put that same microcontroller on the OBD board, and so now they have consistency in terms of programming, formats and storage.

Q For our purposes today, is there any difference in the features or functionality of the LMU-3000 and 3030?

A No. If I went back and looked at a similar set of schematics on the LMU-3030, I could point to the exact same areas, the same kind of components, same kind of connectivity. The primary difference is the fact that this U14 has been replaced with an STM microcontroller.

Q All right, sir. And VPOD2, can you explain to the jury what that is?

A VPOD2 is the OBD board from the 3030 that is, then, put into a separate housing as used with other LMU type products that do not have the OBD capability and, therefore, render them in the same way as practicing what I find to be the inventions that are from these four patents.

Q All right, sir. The last product that I have on my list is the 3050. Do you recall the explanation from

CalAmp as to the difference between the 3030 and the 3050?

A I understand that the difference is, as I recall from the deposition testimony, was that it was basically configured, it was provisioned for use in Europe, particularly the UK. But other than the provisioning to make it compatible with other rules over in the UK, they're the same. I understand the provisioning was done in the U.S.

Q And for our purposes today, do the 3030 and 3050 basically provide identical structure and functionality?

A That is correct.

Q Okay.

MR. SANTURRI: Madam clerk, may I have the Elmo? Thank you.

BY MR. SANTURRI:

Q All right, sir. I want to have you walk the jury through each of the claims that you looked at for infringement and talk us through the process of how you determined that each of the claims that as asserted today is infringed. So I have a blow-up of the language from each of the asserted claims. And let's go ahead and start with the '876 patent, Claim 1.

I know we went through this briefly before when you discussed generally how you approached taking a look at

the patents. I want to have you go ahead and focus on the specific language and walk us through how you found each element of Claim 1 of the '876 patent in each of the accused products. So if we can start with the first portion of Claim 1, you called that the preamble; is that right?

A Yes, that's correct.

Q And for our purposes today, does the preamble act as a limitation?

A No, it does not.

Q Next we have the transmitter and receiver for receiving signals from said transmitter. Can you explain to the jury -- well, first of all, did you find that starting with the LMU-3000?

A Yes, I did.

Q All right. And can you explain to the jury where you found that element within the LMU-3000?

A The transmitter and receiver for receiving signals from the transmitter, I wanted to identify that. It's a combination of the receiver/transmitter that's a part of the LMU-3000, which I identified as the wireless module to allow cell phone type communication using CDMA or other types of protocol. So that is one.

The other one is, is when you transmit, you're transmitting to something. And so the server receives

that information. It also transmits information back. So you basically have a transmitter/receiver that's in the LMU-3000. You also have a transmitter receiver that's associated with a server that receives and communicates with it.

Q And does CalAmp provide -- well, are these devices able to communicate with servers at CalAmp, for example, the LMU-3000?

A Yes.

Q And so you found the element of the transmitter and receiver to be located in each of the CalAmp accused products?

A That is correct.

Q All right, sir. The next element that we have in Claim 1 of the '876 patent, we can break it up and go to specific portions of this. So let's start with the multi-vehicle compatible controller at the vehicle. Did you find that element?

A Yes, I did.

Q All right. And where did you find that at?

A I found that element in the LMU-3000 and also, of course, in the LMU-3030. So comments I make on the 3000 I've already discussed what the similarities are to the others, so I'll just focus on the 3000 here.

The multi-vehicle compatible controller is a

combination of the STM 32-bit microcontroller that's on the LMU board. There is also, in combination with the OBD controller on the OBD board that I identified earlier, and I am also including in this what I call the bus transceiver that actually connects the OBD controller to the bus and that actually -- excuse me -- the bus transceiver actually provides the protocol necessary for encoding information going to the vehicle bus and decoding the information coming back from the bus. So it's a combination of those three together provide the multi-vehicle compatible controller part of the LMU-3000.

Q And it may be helpful to sort of back up for a second here and just make sure that I get everything that you say. We have the transmitter and receiver that we assigned to this cell radio module, right?

A Yes, in combination with the one located at CalAmp's server.

Q Okay. And then for the multi-vehicle compatible controller, was a portion of what we see in Exhibit 3 representative of that multi-vehicle compatible controller?

A That's this 32-bit STM microcontroller.

Q And do we also see part of the multi-vehicle compatible controller in Plaintiff's Exhibit 5?

A That is correct. This is the OBD board. This is that logic array that provides the control function in cooperation with the bus interface device that does the translation to and from a bus.

Q All right, sir. So we have our multi-vehicle compatible controller. Now, the next portion is that the controller cooperates with the transmitter and receiver. How did you determine that that occurs?

A I showed on the schematics where the interconnectivity between the boards, the electrical interconnectivity for wires coming out of the STM 32-bit microcontroller, how they connect to the wireless receiver transmitter on the same board and how they also interconnect through contact connectors to the OBD board and show where they actually interconnect into the array aspect, logic array, of the OBD board.

Q All right, sir. Now, the next portion of the claim is the multi-vehicle compatible controller generating at least one set of command signals on the data communications bus for the at least one vehicle device. So let me start with the easy part there, the vehicle device, what did you determine that to be?

A The vehicle device can be any of a number of different components that are communicating over the vehicle data bus, particularly in this particular

instance, I would refer to the control device or the device that's called the engine control unit, sometimes the engine control module, ECM or ECU.

Q And what's the purpose of the engine control unit?

A The engine control unit basically provides the interface to other types of devices that manage the engine. It can be looking at transmission speed. It can look at engine components, basically either a lot of centers that are built into the engine of the transmission, fluids, that type of thing. And so the ECM is basically the primary interface for all of those centers. There's others, for instance, the body control module is another one that handles communication to door locks and other things of that nature, so -- and there's a third one that handles the instrument cluster.

Q All right, sir. If you can -- backing up within that same portion of the claim, this claim requires that the multi-vehicle compatible controller generate at least one set of command signals. Did you find the LMU-3000 to do that?

A Yes. There was a number of representations in deposition testimony about communication to the bus. Secondly, go back and look at the schematic that I identified and I showed that there was a number of interfaces to the J1850PWM, as well as J1850VPW, and

also to the CAN bus. So they have the interfaces, and it's up to the particular OBD interface to provide the selectivity to the type of bus and then the communication across that bus.

Q All right, sir. The next portion of our claim is that at least one set of command signals comprising at least one working command signal and one -- at least one non-working command signal for a given vehicle to thereby provide command capability with a plurality of different vehicles. So let me go back up. Did you find that the LMU-3000 is able to generate at least one working command signal?

A Yes.

Q All right, sir. And how do you determine that?

A Well, it is a controller that is able to communicate with a number of different buses. That's proven by the electrical schematic that shows it has connections that can go to any one of a number of different buses.

Number two, even since I think it's 2008 where it's been mandated that the vehicles use the CAN type bus architecture, there's two types of CAN bus architecture. And so the information in the schematics certainly relate to that. So it does have the capability structurally of communicating to multiple different bus architectures.

Now, a working command signal is a command signal that is sent out by the microcontroller, by the multi-vehicle compatible controller, to identify whether or not the signal, the command signal that is being generated, can be actually received and understood by some component on the bus. If it is a command signal that is understood by a component on the bus, then necessarily that is a working command signal.

Q What's an example of a non-working command signal?

A When you first start up the vehicle and, in particular, with this, you install the multi-vehicle compatible controller system. This control system, at that point, does not have operator knowledge of what the bus is in that particular vehicle. So it will send out a sequence of commands in order to discover what that bus is. It's called a bus discovery process.

And so if it sends out a command, for instance, assuming that it is a J1850-PWM and it gets back no response, then that's a non-working command. It sent out a command, but it got no response. So that sets up a sequence of commands that are generated by the control system to determine or discover what the bus is, some of which will not work, because it receives no response and at least one of which will work, which is a working command.

Q All right, sir. While we're talking about the command signals, let me put up for you a portion of Plaintiff's 60. This is a CalAmp presentation that we've already looked at a little bit during your testimony. Is this vehicle detection or vehicle discovery process basically the idea of the working and non-working command signals you were referring to?

A Yes. In my opinion, this corresponds to that. You can see, for instance, it says the process is called vehicle discovery. You insert the device. The vehicle is off. You run the ignition for a certain period of time to complete it. And it is during this process that these commands are sent out to attempt to get a match to understand what is actually happening and then discover what bus it is.

Q All right. Staying with Plaintiff's 60 on the next page of that presentation, we have the ignition on and this process here, is that basically the idea of sending out working and non-working command signals to determine the bus that it's on?

A In my opinion, yes. This step one, technically it's providing information out to the bus and looking for a response. And if it gets a response, such as read VIN, if it gets a response then it knows it's a working command signal. If it doesn't get a response, then it's

non-working.

Q And the start V-bus accumulators, do you remember what that indicates?

A Yes. That was talked about extensively during the deposition testimony that was played here today, especially. The accumulators are temporary storage areas and a memory or controller. They both have them. And the accumulator basically is accumulating information that's coming back from the bus. So if it sends out a command that works and it gets a response, such as a VIN number, then the VIN number comes back and it's accumulated. The information that comes back is stored.

Q All right, sir. So we have at least one working and non-working set of command signals?

A Yes.

Q Is there anything else needed to meet the element of this claim that we haven't covered?

A No. Because each one of the elements that are shown in the body of the claim have identified its location and what actual structure supports this requirement, and so the combination of all of these elements that are shown in the body then meet the requirements for a control system of the preamble and, therefore, the CalAmp -- LMU-3000 does, in fact, contain and I found

every one of these components.
Q And with those elements met, just for completeness, we can confirm that this is a control system for a vehicle with a data communication bus as described, right?
A Yes, 'cause the claim control system is defined by the elements of the claim, and that I have shown to be in existence in the CalAmp 3000, correspondingly in the 3030 and the VPOD and VPOD2.
Q All right. Now before we leave this claim, I do want to go back to the Court's claim construction. Earlier, you talked about how the Court had defined certain of these terms and that your opinions conformed to the Court's construction. Do you have the constructions up there with you?
A I believe I do.
Q If not, I can put them up on the screen for you.
A Yes, I do. I have it. I have it.
Q Okay. So I think for purposes of this claim, the Court construed transmitter and receiver as radio frequency transmitter and receiver. The transmitter and receiver that we discussed -- let me back up. Can you explain what a radio frequency transmitter and receiver means?
A Yes. We'll take each one separately. A radio

frequency transmitter says that it uses an antenna that you propagate electromagnetic waves across and then they propagate out from the antenna, they emit from the antenna. It's just like sending a radio signal from a radio station. Cell phones to cell towers is radio frequency. Paging is radio frequency. Basically, it's a transmitter that transmits information across a wireless network.
Q All right, sir. Also defined is a controller and a multi-vehicle compatible controller. And the multi-vehicle compatible controller is defined as electronic circuitry that performs one or more control functions and can operate more than one vehicle. So first of all, is the controller that you've identified electronic circuitry?
A Yes. The controller that I identified for the multi-vehicle compatible controller, I indicated the STM 32-bit device on the board, indicated the array device on the BOD (sic) board that conforms to the BOD criteria, as well as the interface chip. So that system is the multi-vehicle compatible controller and it does meet the criteria of electronic circuitry, which it is, and it performs one or more control functions, which it does, such as sending out information on the bus expecting and receiving responses.

Q How did -- one of ordinary skill in the art at the time that this was filed, can you explain how one of ordinary skill in the art would understand a control function?
A Yes. If you look at any implementation, the question is what is the device. Well, the device that's performing this is, by definition and by data sheet and by representation by the manufacturer, a microcontroller. It is a controller, unquestionable. Number two, a control function are the functions that the controller would perform.
If part of the control functions are, in some cases actually sending out a mandate, a command that is a mandate, you must perform something; or, for instance, if it's connected directly to a siren and it has an event, a trigger, and it looks at the conditions and then says there has to be a response, I've got to sound a siren, that is something that is a mandate. It has to do it. That is a type of command.
Another type of command or control function is sending out information to see if you do get a response. It's called broadcast. In the RF world, in the wireless world, these are part of the structural ways in which communication occurs from a controller.
Secondly, when you look at controller within the

construct of this particular type of a system, which is a bus -- a vehicular bus system, the vehicular bus system -- and I'll use, for example, the CAN bus system which, as I said, has been mandated throughout the U.S. since 2008, the CAN bus system, what does it mean? Controller. It's a control -- it's a controller. It's an area network, and it's a controller. So it understands that it's a control system.
How does it work? You cannot have multiple different messages on the same set of wires at the exact precise time. There has to be some bus arbitration as to who's controlling the bus and who is not. And so, there are mechanisms and ways in which the CAN bus system architecture has been designed such that there is one and only one unit that is a part of -- that's connected to that bus that's allowed to control the bus, to have access to the bus for the purposes of sending information or receiving it.
And so in some cases, we refer to that in the electronic world as master and slave. Who is the master? Who is the slave? The master is the controller. The slave is the recipient. And if information is being generated to a bus that, by definition, is the master, the one who is generating the bus is the master, and he is the controller.

So performing control functions in an electronic world is basically controlling the bus, sending information on the bus. And that could be done in terms of sending out information, expecting responses. Sometimes we refer to it as a query.

Q All right, sir. If we can move on to Claim 3 and remind the jury, again, this is a dependent claim, so what does Claim 3 require?

A Claim 3, being a dependent claim, requires all of what has been defined and required in Claim 1. And in addition, it adds an additional limitation. And that's after the "wherein" word. It says, a control system, according to Claim 1, wherein, said multi-vehicle compatible controller generates command signals sequentially.

Q And did you determine whether the LMU-3000 and the other accused devices send out command signals sequentially?

A Yes, I did.

Q And does it?

A Yes. As I showed in the electrical schematics and have just mentioned the fact that you can have multiple sets of information on the same wire at the same position at the same time, it has to, by definition, on a CAN bus system, or the architecture that's used in

these vehicle bus systems, send them out sequentially. It has to be done sequentially. It's necessary to be done so. And information that I obtained by listening to the deposition transcript -- reading the deposition transcript, reading or hearing the verbal testimony, even today, confirms the fact that the controller does generate the command signals sequentially.

Q All right, sir. Claim 4 requires that the multi-vehicle compatible controller generates command signals each representing digitally coded information. Did you find that to be met by the CalAmp accused products?

A Yes. Each of the bus types of architecture require digital protocol. Protocol is the communication standard that is used. And each one of these require digital implementation -- digitally coded information, as far as the way in which they're implemented.

Q All right, sir. Claim 5 requires that the multi-vehicle compatible controller comprises a memory for storing data related to at least one set of command signals. Did we talk about any memory found in the LMU products today?

A Yes, I did. In fact, I think I -- I know I pointed it out on the OBD board. There's also memory that's associated with the STM microcontroller on the flash

memory that's located also on the LMU board.

Q All right. So you found that -- this element to be met in each of the accused products?

A Yes, I did.

Q All right, sir. In Claim 12, we have a further limitation that a multi-vehicle compatible controller stores a set of device codes for a given vehicle device for a plurality of different vehicles. Did you find that aspect of this claim to be met by the accused products?

A Yes, I did.

Q And did you also find that the multi-vehicle compatible controller is for reading a device code from the data communication case bus and for determining a match between a read device code and the stored device codes to thereby provide reading compatibility with a plurality of different vehicles?

A Yes, I did. One of the unique aspects of this type of a system is the fact that you send out a sequence of codes, and only the code which is understood by some downstream vehicle device on the vehicle bus is going to respond. And so, it's called a working command. When you get that working signal provides a response, that's a match.

Q And in the case of the LMU products, when does that -- well, first of all, when is that device code read?

A Well, the device code for a particular bus architecture is sent out by the OBD device through its interface. And it's sent out in a particular code format that only a particular bus architecture can comprehend. And so, if there is a response that comes back it's ready additionally by that OBD controller and then passed on to the LMU. And the LMU chip, the STM device, makes the final determination.

Q And did we hear testimony from Mr. Chen acknowledging that the LMU devices are able to perform this process of reading the device codes from the bus and matching them with look-up tables?

A My opinion is, in hearing his testimony, the answer is yes. I think there's some -- I can recall some discussion with regard to whether or not, in fact, these devices are controllers and whether or not, in fact, it's a command signal. But I think I've already gone through this analysis, and I've provided information to the jury already that my opinion is that it is a controller for the reasons I stated, and it is multi-vehicle compatible, because it does send out a sequence of different codes and it does receive -- if it has a corresponding code that is returned, then we know that there is a match, by definition, because the bus responded.

Q And once that response is received by the LMU device, the LMU device is able to match what it reads off the bus to what is stored internally?
A Yes. Once it provides that -- once it receives that read information back from the bus, then it knows that it has a response that's compatible with what -- with the type of message it sent out and, therefore, it now has -- the LMU-3000 now has the information that needs to then configure the system so that it will now operate as if it is that particular type of bus system that it's talking to.
Q All right, sir. Claim 14 indicates that our transmitter is a central station transmitter and the receiver is at the vehicle. Do you see that?
A Yes. In fact, we had looked earlier at a diagram that showed the LMU communicating wirelessly to the CalAmp servers.
Q Is this the diagram you're referring to, sir?
A That's correct.
Q And so here's our LMU, and then are you referring to the servers on this side?
A Yes, that's correct.
Q Would you view this as being a central station, essentially?
A Yes, I would.

Q Now, Claim 14 is with the transmission of data from the central station or the servers to the vehicle; is that right?
A Again, it's Claim 14 you're reading?
Q Yes, sir.
A Yeah. Here, as I mentioned earlier, there's a transmitter receiver on the LMU-3000, 3030 or VPOD connectivity with the other LMUs. And there's also a transmitter receiver on the server side. And so, you transmit from one, you receive on the other, and vice versa.
Q And so, did you also find Claim 16 to be met?
A For the same reason, yes.
Q All right. And just before we move away from this to try to create a bit of a summary for us, as we go through all these claims and products, did you find that each of Claims 1, 3 through 5, 12, 14 and 16 of the '876 patent were found in the LMU-3000 or met by the LMU-3000?
A Yes. That's consistent with the testimony I just offered.
Q And what about for the 3030 and 3050?
A 3030 and 3050 is identical to the 3000 for the ways in which its operates and the components. The only distinction is on that the OBD board, they replaced one of the devices with another ST 32-bit microcontroller.

So yes, it would comply to 3030 and 3050 as well for each of those claims.
Q All right, sir. And does the VPOD also infringe based on your analysis?
A Yeah. Well, the VPOD itself has no substantial use other than connecting to the specific LMUs that have GPS and wireless capability. And so the combination of the VPOD with the other LMUs that have been defined, yes, they also will infringe each one of these claims of the '876.
Q And you understood from the testimony we heard that the VPOD only works with other CalAmp LMUs, correct?
A That's correct.
Q So CalAmp necessarily is providing the other components, the cellular and GPS that aren't found within the housing of the VPOD?
A That's correct. And as I said, as I recall, I believe the numbers are 2600 and 4200.
Q All right, sir. And did you also find the VPOD2 to infringe under the same explanation as with the VPOD?
A Yes, that's correct.
Q All right, sir.
MR. SANTURRI: Your Honor, would you like --
THE COURT: Let's take a break at this point. Looks like we're at a good breaking point. It's now

about five minutes before three. We'll come back at roughly ten after three and pick up where we left off at this time, with patent '885.
(Jury exits.)
We're in recess until roughly ten after three.
(Recess 2:56 p.m. to 3:12 p.m.)
The record should reflect the jury is absent. The parties are present. Let me just take up a scheduling issue. If we anticipate the case going to the jury on Monday, we should do a charge conference tomorrow night at, say, 4:00 something like that, let the jury go early and discuss the jury instructions tomorrow.
If we think the case is going Tuesday, we can do the charge conference Monday night or if we're essentially done with evidence at some point on Monday, we can let them go early and do it then. I just want to work out a time that's the most efficient for everyone's travel and witnesses coming back and forth, and so forth. So I want to tell the jury before they leave today what they're doing tomorrow, so if you could help me understand where you think we are. How much longer do you think you have in the plaintiff's case, Mr. Santurri?
MR. SANTURRI: We should be done -- well,

we'll be done sometime mid-day tomorrow is what I would expect.

THE COURT: Okay.

MR. SANTURRI: Maybe late tomorrow.

THE COURT: And then the defense, how long do you think you will need?

MR. KAUTH: A day and a half to two days. I think Tuesday is most likely.

THE COURT: Tuesday does seem more likely.

So why don't we do this. We'll push the charge conference over to Monday sometime, give us a chance to reflect on some of those issues. One of the issues in the charge conference we can talk about more later is the viability of anticipation as to patent '278. '989 is gone.

And I have reviewed the order on motion for summary judgment and please review that, because my denial of summary judgment on '278 was my conclusion that the anticipation defense was not raised pursuant to Mr. Andrews having testified that he was not considering anticipation and then his declaration came after close of discovery. If there's something different, point me to it in the record so I can look at it over the weekend. All right?

All right. Let's have the jury come back,

please. So for planning purposes, we'll go until five today.

(Jury present.)

The record should reflect the jury has returned and we are continuing with the direct examination of plaintiff's expert witness when you're ready.

MR. SANTURRI: Thank you, Your Honor.

DIRECT EXAMINATION (Continues.)

BY MR. SANTURRI:

Q All right. Mr. McAlexander, I'd like to turn your attention to the '885 patent. And if we can do the same process, I think it may move a little more quickly, because we're going to see some of the same elements again. So if we start out, did you determine that the CalAmp accused products are, in fact, control systems for a vehicle comprising a data communication bus and at least one vehicle device connected thereto?

A Yes, because each of the elements which follow that preamble are found in the accused product.

Q All right, sir. And the first element is transmitter and receiver for receiving signals from the transmitter. Did you find that in the CalAmp accused products?

A Yes. I identified this also in the '876 claim

chart, which we went through and this is word for word the same. So the identification of the transceiver on the CalAmp device, as well as the transmitter receiver part of the network server system.

Q And I don't think we discussed it with respect to the last claims, but not only did you walk us through where physically it's at in these devices, but you were here for the deposition testimony of Mr. Hergesheimer and Mr. Chen that confirmed that this element is present, correct?

A Yes, that is correct.

Q All right, sir. The next element we have here is a multi-vehicle compatible controller cooperating with the transmitter and receiver. And did we find that in the '876 patent?

A Yes. I already identified that the units that were used, it's the STM device on the LMU, it's a combination with the controller that's part of the on-board display -- the OBD device, on-board diagnostic device, as well as the interface.

Q All right. And before we move on, I realize we may have kind of skipped over a little bit and perhaps not provided enough explanation on the whole idea of multi-vehicle. Now, you've talked about a couple of the different bus types. Can you explain sort of the concept

of multi-vehicle to the jury?

A Yes. In the -- prior to this invention, the -- there were different bus architectures, and so one would design a particular type of control system that would be dedicated to that type of bus architecture. So, in essence, you had operator knowledge of what you're designing for and you design for it.

Here, this invention is developing and designing and having in place one control system that could have multiple uses. It could be used with any of a number of different types of bus systems. And it has the mechanism by which it sends out a series of signals, device codes, and receives responses back and can determine whether or not there is a particular match. In other words, it can go between different bus systems and communicate over them. All it has to do is first send out the types of query necessary to get a response. Based on that, determine the type of bus and then configure accordingly.

Q We've talked about some different bus types, the CAN bus, the ISO, the J1850. Is it common for different manufacturers to use different bus types?

A It has been and is still today, but with a few caveats. In the past, before, there was standardization since about 2008 around the CAN bus system for U.S.-made

vehicles. There were different techniques. And, for instance, I mentioned the J1850 PULS with modulator, PWM bus. That ran at a certain frequency. I think it was about 10.4 and -- 10.4 kilobits per second, and that particular one was adopted by Ford.

So they had a certain communication or protocol that a system, a component, a controller would have to work with it. But if you put that over into the J1850VPW, variable PULS width modulation, it would not cooperate. It would not work.

So there were different bus architectures that were appropriated by different manufacturers and sometimes different models within manufacturers. But what this invention contemplates is having a system that can go in without any prior knowledge of what that system bus architecture is, discover what that is and then configure accordingly.

Q Now, in different vehicles with the same bus, for example, multi-vehicles with the same CAN bus, is it possible that even amongst those vehicles the codes that are used on the bus are going to be different?

A Yes. In fact, even within the CAN there are two different specs that define the CAN. There's a CAN 11 and a CAN 29. And so there's a different architecture, a different communication that's appropriate in each one

of those.

Q And with even a single bus, even with a single type of CAN bus, do different manufacturers or even different models use different codes to perform the same operations?

A That is correct, they do. Sometimes a VIN number or the model number of the car is very important to be able to tailor the specific code to that particular type of model device so, yes. Even within the CAN structure, even if a manufacturer uses, for instance, the CAN 29-bit type, different models may use different features. And they may -- for instance, the luxury models would certainly use a different set of features or some additional features than would not even be recognized by the lower-end models.

Q All right, sir. Coming back to Claim 1 of the '885, we left off at storing a set of device codes for a given vehicle device for a plurality of different vehicles. Did you find that the LMU -- the CalAmp LMU products at issue in this case can store -- sorry -- store device codes?

A I didn't mean for it to be contagious. Yes, it does. In fact, this was confirmed by the deposition testimony as well.

Q All right. And I think we covered this with respect

to one of the dependant claims previously. But did you also find that the accused CalAmp devices read device codes and determine a match between read device codes and stored device codes?

A Yes. I mentioned it goes through a sequence of commands that sends signals out for a particular type of bus. And then when a response comes back then obviously it's reading that information from the bus. And if it does receive a response, then a match has occurred.

Q All right, sir. Having gone through the rest of that element, can you confirm that this final element of Claim 1 in the '885 is met by the CalAmp accused products?

A Yes. Because of the way in which it operates to send out a sequence of codes, it does provide a compatibility with a plurality of two or more different vehicles.

Q All right, sir. Claim 2 of the '885 adds a memory for stored device codes. Were you able to identify that?

A Yes. I did identify that. And I indicated earlier where memories were located on both the LMU board as well as the BOD [sic] board.

Q Did we also -- the OBD board?

A Yes.

Q And did we also hear deposition testimony confirming

that?

A Yes. And as I even look through the schematics of Hardee, it also identified where the memories are located.

Q All right, sir. Claim 3 of the '885, the multi-vehicle compatible controller comprises a processor cooperating with said memory for determining a match between the read device code and the stored device codes. Do you see that?

A Yes.

Q Did you determine whether that element's met by the CalAmp accused devices?

A Yes. The process -- the LMU processor itself cooperates with the memory and makes that assessment, makes that determination.

Q All right, sir. Claims 12 and 14 are like claims that we covered in the '876 where a central station acts as either the transmitter or receiver. Did you find that the CalAmp accused products meet Claims 12 and 14 of the '885?

A Yes. I also addressed this one when I was dealing with the claims on the '876, both the transmitter and receiver at the central station, as well as one on the LMU device, so Claims 12 and 14 are both practiced.

Q All right, sir. We summarized that chart. Let me

go back to my slide here and confirm that you found Claims 1 through 3, 12 and 14 of the '885 patent were infringed by the LMU-3000?
A That is correct.
Q And by the 3030 and 3050?
A For the same reasons I discussed before, yes.
Q And by the VPOD with -- in combination with other CalAmp products?
A In combination with the other LMU products, yes.
Q And the VPOD2 for the same reasons?
A That's correct.
Q All right, sir. We're going to move on to the '727 patent. And I'm going to have you work us through this claim 'cause we have some different language than what we looked at previously.
Claim 1 is for a speed-exceeded-notification device for a vehicle of a type comprising a vehicle data communications bus extending throughout the vehicle, and at least one vehicle device generating data related to vehicle speed on the vehicle data communications bus. Did you find that that -- Claim 1 to be infringed and that the accused products are, in fact, the speed exceeded notification device?
A I did find that the products are -- the products that are accused do infringe. And with respect to this

first block, which is the preamble, once again, I determined that technically it was not a limiting preamble. It's addressing a speed exceeded notification device. It sets the environment for which it can operate in. But the measure of what is required is defined by the body of the claim, which is the wireless communication device and the controller.
Q All right, sir. You did -- were you able to determine whether there was a wireless communication device in the accused products?
A Yes. It's the same cell RF transmitter receiver that I identified before.
Q All right. And the next element is a controller to be coupled to the vehicle data communications bus for reading the data related to vehicle speed from the vehicle data communications bus. Did you find that to be present in the CalAmp accused products?
A Yes. And I'm pointing here to the same controller that I had identified in the previous two patents, specifically the LMU controller, the STM 32-bit microcontroller, as well as the controller that's operative on the OBD board, in combination with the bus transceiver.
Q And did we hear from at least Mr. Eiberger and perhaps Mr. Hergesheimer confirming that the accused

products, in fact, collect or read data from the bus on vehicle speed?
A Yes, that is confirmed.
Q All right, sir. And then, do the CalAmp accused products also determine when a vehicle speed exceeds a speed threshold for a first time period, and based thereon cooperate with the wireless communications device to send a speed exceeded notification?
A Yes. That was also affirmed by the deposition testimony.
Q And was that the deposition testimony of Mr. Eiberger?
A That is correct. He affirmed that there were speed thresholds that were defined and scripts could be written in order to make that determination, but the structure and the function, the capability, is built into the controller.
Q So have we met every aspect of the last element of Claim 1?
A In my opinion, yes.
Q All right, sir. Claim 10 requires that the remote vehicle speed exceeded notification comprises a speed of a vehicle. We heard testimony that the vehicle speed is reported by the accused products as part of event reports?

A That is correct. It is one of the parameters that is accumulated.
Q All right, sir. And Claim 11 relates to the speed exceeded notification also comprising vehicle position. And did we hear from Mr. Eiberger that the event reports included the latitude and longitude position of the vehicle?
A That is correct. And I had defined earlier a document, PX-23, that recited and specified these particular parameters, including speed, as well as latitude/longitude.
Q So based on your analysis can we confirm that Claim 1, 10 and 11 of the '727 are infringed?
A In my opinion, yes, they are infringed.
Q And that was for the 3000. For the 3030, it's the same conclusion?
A That is correct for the same reasons I described before.
Q And the VPOD in combination with the LMUs from CalAmp?
A That is correct.
Q And the VPOD2 in combination with LMUs from CalAmp?
A That is also correct.
Q All right, sir. Here we have the last of the asserted patents that we're going to go through today.

So let's start with Claim 1 of the '278 patent. Did you confirm that Claim 1 was infringed by the CalAmp accused products?
A Yes. Going through the same analysis and taking the properly construed claims and applying them to the devices, I concluded Claim 1 is infringed by the CalAmp products.
Q All right, sir. The first element that we have here is the vehicle position determining device. Can you explain what that is?
A That is the GPS component.
Q And we had that confirmed in deposition testimony?
A Confirmed in deposition. And I also affirmed where it was located on the boards, as well as in the schematic.
Q All right, sir. And we have a wireless communication device again. Is that still met for the purposes of this claim?
A Yes. That's the receiver transmitter.
Q And we have a multi-vehicle compatible controller for cooperating with the vehicle position determining device and the wireless communication device to send them vehicle position information. Were you able to confirm that the LMU accused products meet that element?
A Yes. And when I went through the description of the

schematics, I showed where the electrical interconnectivity occurs between the controller, one part of the controller, as well as to the GPS module and also to the wireless module.
Q And those were the red lines that you circled and we labeled for the communication between the GPS and the LMU?
A Yes, sir, that's correct.
Q All right, sir. The next element is multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. Did you find this element to be met?
A Yes. The one vehicle device that I identified was the ECU or ECM. And the data bus connects between the controller, and that particular device is confirmed. And communication for generating data or commands signals to the bus and for receiving or reading back information from the bus, I've already discussed as well.
Q And it's that information reading from the bus, those device codes that we're talking about here?
A That is correct. There are certain -- the system is digital, and the digital information and instructions

are encoded. And they are encoded in a way in which there must be an encoding to go to the bus and a decoding to receive the information back from the bus. These are device codes.
Q And I think we've already talked about the fact that these devices are designed for different vehicles?
A Yes, that's correct.
Q Going back to the controller coupled to the data bus, that was through that port that we looked at, the picture of and the metal interface; is that right?
A That is -- the one you're referring to is the picture that I showed on the OBD board that had the fingers that stuck out to the right. And that basically is an interface chip that connects to those particular connection points, and they plug into the plug receptacle part of the vehicle data bus.
Q All right. We covered everything in this element?
A That is correct.
Q All right, sir. Finally, we have a downloading interface for permitting downloading of enabling data related to at least one corresponding vehicle device code for use by said multi-vehicle compatible controller. Were you able to locate that downloading interface?
A Yes, I identified two. One is the serial port that I identified when I went through the schematic, and I

also showed on the LMU board where that is located. And I also identified the wireless transceiver, which is also used for downloading. So it can be either wired or wireless in terms of downloading downloading.
Q Now, the Court has defined enabling data as data related to at least one corresponding vehicle device code for use by the controller. Did you determine that the enabling data, as defined by the Court, can be downloaded by the -- to the OBD units from CalAmp?
A Yes, both through the serial port and also wirelessly, and they can be updated as well.
Q And we heard that from Mr. Hergesheimer and Mr. Eiberger, right?
A As I recall from both, yes.
Q All right, sir. Claim 2 relates to the downloading interface comprising a wired signal downloading interface. Did you find that?
A Yes. This is the serial port.
Q Claim 3 depends on Claim 2, which also depends upon Claim 1 and requires that the wired signal downloading interface is a connector for temporary connection. Did you find that?
A Yes. The wired interface has a connector associated with it so that you can plug in some external device to it.

Q And I believe we heard about provisioning the devices and loading scripts on to them using that serial port; is that right?
A That is correct, yes.
Q All right, sir. Claim 4 recites or requires a downloading interface that is wireless. Did we already discuss that?
A That is the RF transceiver, and it also is affirmed by the deposition testimony.
Q And I think CalAmp refers to that as over the air or OTA?
A It's over-the-air provisioning.
Q Okay.
A And let me just say it's beyond just provisioning, because also they have the ability over the air to download the software, the firmware, that they operate based upon. They also have the ability to load additional scripts for provisioning.
Q All right, sir. And 5 makes that wireless downloading interface temporary. Is that consistent with how the CalAmp accused products are designed?
A Yes. It uses standard wireless communication protocols, so it is temporary. It's not a permanent connection.
Q All right. And Claim 6 requires that the -- at

least one vehicle code is for reading at least one vehicle device. Did you confirm that to be true?
A Yes. And I have identified that device as the ECM or the ECU. It's similar to what I described in the previous patent.
Q All right, sir. Claim 8 adds the limitation that the downloading interface permits downloading of at least one programming instruction for the multi-vehicle compatible controller, and the programming instruction has been defined by the Court as code which instructs the controller to perform an operation. Did you find Claim 8 to be met by the CalAmp products?
A Yes. This is performed when the -- using the PULS system to download information, as well as can be firmware, can be scripts, but there are programming instructions that are downloaded as a result of that connection.
Q All right, sir. Claim 11 requires that the device uses GPS. We found that, correct?
A That is correct. That's the GPS module.
Q Claim 12 recites that there's a housing containing the vehicle position determining device, the wireless communication device, and the multi-compatible controller, as well as the downloading interface. Did you find that?

A Yes, to housing.
Q Claim 13 comprises a vehicle data bus extending throughout the vehicle. Actually, I should back up. This is the preamble, so let me back up and just confirm that for Claim 13, did you find that to be infringed?
A Yes. Claim 13 is another independent claim.
Q All right. The first element is a wireless position determining device. I think we already talked about that?
A That's the GPS module that was found.
Q The wireless communication device?
A That's the RF transceiver that's found.
Q The multi-vehicle compatible controller for cooperating with the position determining device and the wireless communication device?
A And this is the same controller set that I have identified in the previous claims.
Q The controllers coupled to the bus for communication with at least one vehicle device using corresponding vehicle device codes for a plurality of vehicles, have we already found that?
A Yes. This is the controller that -- coupled through the transceiver interface.
Q All right. And then, we have a downloading interface for permitting the downloading of enabling

data. Did we talk about that in Claim 1?
A That is correct, the same as Claim 1.
Q All right. And then, the last element in this particular claim is that the downloading interface is a temporary connection to a downloading device. Did we find that?
A This would be the serial port, yes.
Q And Claim 14 requires that the -- at least one vehicle code is for reading from at least one vehicle device? I think we already confirmed that?
A That is correct. Again, looking at the ECU is that vehicle device.
Q Claim 16, downloading interface for permitting downloading of at least one programming instruction. I think we had a similar element to that in one of the other claims --
A That's correct, Claim 1.
Q All right, sir. Moving on to Claim 18, multi-vehicle compatible tracking unit for a vehicle comprising the vehicle data bus extending throughout the vehicle. Did you find Claim 18 to be infringed?
A Yes. Again, the preamble sets the environment. The elements that are required follow in the body of the claim.
Q All right. And we're already talked about a vehicle

positioning determining device?
A The same answer as in the previous claims, as well as the wireless communication RF device.
Q And the controller for cooperating with the GPS and the wireless communication device?
A The same set of units that I identified previously.
Q And the controllers coupled to the bus for communication with the vehicle device?
A That is correct. And it uses the corresponding vehicle device code from among the plurality of thereof for different vehicles, the same as what we found in the previous claim.
Q All right. And again, we have the downloading interface for permitting downloading of enabling data. I think we talked about that before?
A Yes, the same answer it's found.
Q The downloading interface is a wireless receiver for temporary connection. Did we find that?
A That's correct. That's used in the RF transceiver.
Q And the multi-vehicle compatible tracking unit that has at least one vehicle code, I think we talked about that earlier?
A That is correct.
Q And finally, we have Claim 21 where the interface is for permitting downloading of at least one programming

instruction. We talked about that already?
A Yes. I've already defined that previously.
Q All right, sir. We've gone through and completed this chart. Would you say that this chart that we've worked on together over the past hour or so accurately reflects your opinions as to infringement as to the asserted claims?
A Yes, it does.
MR. SANTURRI: Your Honor, I'd move for admission of our chart here as Plaintiff's Exhibit 162.
THE COURT: Any objection?
MR. KAUTH: No objection, Your Honor.
THE COURT: It will be admitted.
BY MR. SANTURRI:
Q All right, sir, just to summarize where we've gone through with the '278, can you confirm that all the claims of the '278 were met by the LMU-3000?
A Yes, that's correct.
Q And how about for the LMU-3030?
A Yes, that's correct.
MR. SANTURRI: One moment.
(Pause in proceedings.)
BY MR. SANTURRI:
Q Before we do the VPOD, if I can bring you back to Claim 12. We talked about the multi-vehicle compatible

tracking unit with the housing containing the vehicle position determining device, communication device, and the multi-vehicle compatible controller and downloading interface. Would that claim, Claim 12 of the '278, be infringed by the VPOD and VPOD2?
A Claim 12 requires a limitation that comprises a housing that contains the vehicle position determining device, the wireless communication device and the compatible controller, and said downloading interface. Part of the compatible controller is found on the OBD board, which is in a separate -- it would be in the VPOD. And so, it would not be in the same housing, per se, as the other positioning devices.
Q All right. So with our summary chart, can we -- can you confirm that all the claims of the '278, except Claim 12, are infringed by the VPOD?
A Yes, I confirm that.
Q And is the answer the same for the VPOD2?
A The same is true for the VPOD2.
Q All right, sir. We have our summary chart here. And does our summary chart that we worked on accurately reflect your opinions as to infringement in this case?
A Yes. It accurately summarizes my opinions as to infringement of each of the claims of the four patents in this case.

Q All right, sir.
MR. SANTURRI: Your Honor, I'd move for admission of this summary of infringed claims as Plaintiff's 163.
THE COURT: Any objection?
MR. KAUTH: No objection, Your Honor.
THE COURT: 163 is admitted.
BY MR. SANTURRI:
Q All right, sir. Before we wrap up here, I want to go back to one issue that we talked about before. And I'll put back up the Claim 1 of the '876 just for reference. And I just want to direct your attention to the controller and the idea of performing control functions. We've heard some testimony that some sort of physical change is required to qualify as a control function. Do you agree with that contention?
A No. That actually belies control system theory.
Q And can you explain that a little bit more?
A Well, in some cases you may have an actual event that occurs and has a physical change. For instance, you can have a sensor that has a physical change. That creates an event. You could change the RPM of the engine and that creates a physical change. You could have a system that detects that speed has exceeded a threshold and because it's gone over the amount for some

period of time, you could actually enact some code that would eventually force govern, if you will, that speed to come back down within the range of which it's allowed. There are physical changes that you can evoke, but the fact that there is a physical change is something that can be an output or an outcropping from a control function, but it is not necessary for a control function to be performed.

Q And looking back through the lens of one of ordinary skill in the art at the time of these patents, would one of ordinary skill in the art view a control function as necessarily requiring some sort of physical or observable change?

A Well, the question is physical how and observable to who? If you're asking is it observable by the naked eye, not always. Control systems and computers operate and do a lot of transactions and constructions and control the bus and control the writing to certain devices and the reading from devices. These are all control functions that are performed in a system.

Are they physically apparent to the naked eye? No. Does it require for it to be? No. Is there something that is caused to happen as a result of that particular function? Yes. There is something that's called a response. You send out a request, you get a response.

Send out a command, you get a response. And the response may or may not evoke a particular operating physical change to some component downstream. It may or may not.

Q All right, sir. And in your opinion, did the CalAmp accused products have any substantial non-infringing use as it relates to the bus?

A No. And the testimony that I've heard that was played for the jury, I think, affirmed that. These are the designs. The CalAmp products are designed for a particular purpose, and there's no substantial non-infringing use. There's no substantial other use.

MR. SANTURRI: Your Honor, I don't have any further questions.

THE COURT: All right. Thank you very much.

Cross examination.

MR. CHONG: Madam clerk, if we could have the defense table. Thank you.

CROSS EXAMINATION

BY MR. KAUTH:

Q Good afternoon, sir.

A Good afternoon.

Q Earlier you mentioned that you've been an expert witness for quite some time. Have you testified previously for Omega Patents, the plaintiff in this case?

A Yes, I have.

Q On how many occasions?

A I believe the actual testimony, in terms of court, was one previous case.

Q And did you consult for them on other cases?

A Yes, I have.

Q And how many total was that?

A I have consulted with them probably on perhaps four other cases.

Q And have you ever testified in the past on Omega's behalf relating to any of the patents in this lawsuit?

A I believe, yes, in the DEI case.

Q And do you recall which one of those -- or which of the patents in suit that would have included?

A As I recall, the '885.

Q And in your opinion, is there anything in your previous testimony that's inconsistent with the testimony you've given in this case relating to the '885 patent?

A I don't believe there's anything inconsistent.

Q Let's go back to your experience. I know you mentioned some automotive experience with Toyota?

A Yes, sir.

Q Was that actually working on products or was that reviewing schematics about the products?

A It was actually both. I was reviewing schematics

and also the products themself. [sic]

Q Okay. And you mentioned another engagement, I believe, that had related to vehicle bus and I think you said AV applications?

A That is correct. It's AV applications of both wired and wireless audio and video applications that are communicated either using the USB type port arrangement and/or a bluetooth type arrangement into part of the database structure that handles the -- that coordinates with the dashboard of a vehicle.

Q And was that for designing products or was that in your capacity as a testifying witness?

A It was in the capacity of doing an evaluation on systems to determine whether or not certain inventions were found. There was an investigation prior to any case, as well as cooperating as a testifying expert in those matters.

Q Okay. And I believe earlier you testified that one of the vehicle devices you pointed out was either the ECU or the ECM, the engine control unit or the engine control module; is that right?

A I did identify that. It's also in my report.

Q And in your capacity in this previous case dealing with the vehicle bus and the AV applications, do those applications communicate with the ECM or the ECU?

A Those particular ones communicated with the modules that are associated with the body control module, not the engine control module for that particular set of cases.
Q Okay.
MR. KAUTH: If you could put up Joint Exhibit 1.
BY MR. KAUTH:
Q I'd like you to take a look at what's been marked Joint Exhibit 1.
MR. KAUTH: May I approach, Your Honor?
THE COURT: Yes, you may.
(Counsel assists witness.)
A I think I have it here.
BY MR. KAUTH:
Q It will be on the screen as well.
A Okay.
Q And you talked briefly about the cover page. And I believe you discussed the data under Related U.S. Application Data. Do you recall that?
A Yes, I do.
Q And you mentioned a continuation-in-part.
A Correct.
Q Have you investigated all of the patents that are listed in the Related U.S. Application Data block on

this first patent, the '876 patent?
A In the past I did, yes.
Q How about for your engagement on this case?
A I investigated the file history that's associated with the '876. I don't believe in this case that I went back and re-reviewed the additional ones that are a part of the CIP structure.
Q Okay.
A I did it previously. I don't recall doing it again.
Q Did you, in your investigation, determine whether there were any changes in the application that led to the '876 patent from the application number 09/382,245, the most previous application in the line?
A I don't have recollection, as I sit here, having gone back to decide or look at what is different between those two. I did do a comparison between the '876 and '885 and confirm that they are one and the same in terms of diagrams and specification.
Q Are there any changes in the specification between the two?
A Between which two?
Q '876 and '885?
A There are some word changes, yes, nothing substantive.
Q And do you recall if between '885 and this

application 09/382,245, were all the figures changed?
A I don't -- as I sit here, I don't recall. Do you have it here with you?
Q I can probably find it for you later.
A I'd be more than happy to respond, if I had it in front of me.
Q Let's turn to Figure 2 of the '876 patent. And you mentioned there was significance of which direction the arrows were pointing from the vehicle bus. Do you recall that?
A Yes, I do.
Q And I believe you said that when the arrows were pointing downward, that was writing onto the bus; is that correct?
A Yes. In fact, it describes in the column 4, a brief description of the drawing, it says Figure 2 -- that's one we're referencing, correct?
Q Correct.
A All right. It says, "Figure 2 is a more detailed schematic block diagram of an embodiment of the multi-vehicle compatible controller illustrating the command signal generation in accordance with the invention," so that's generation of commands that's shown in Figure 2, in parenthesis, drive, so it's driving the bus.

Q All right. And those commands are going to things like the alarm indicator 44a, the door lock actuator 44b and the remote engine start device 44c, and the engine maintenance controller 45a, correct?
A By way of example, it's going to vehicle devices, some of which are shown here that you just recited, yes.
Q And if we could flip to Figure 4, I believe that was one where the arrows pointed upward?
A Yes, that's correct.
Q And can you remind me what you said that meant when the arrows were pointing upward, as far as -- was it writing or reading on --
A This one, this is reading. In fact, it says that in Figure 4 under the bus interface, it says, parenthesis, read. So it's reading from the bus.
Q And in this picture, are the vehicle devices shown writing onto the bus?
A Yes, they are. They're showing responses. One or more of them can respond based upon the information that is being requested.
Q Let me jump back out for a minute. Are you aware of an organization called the SAE or the Society of Automotive Engineers?
A Yes.
Q Have you ever been a member of that organization?

A No, I have not.
Q Are you familiar with their publications and standards?
A Yes.
Q In the system described in Figure 4, would the writing on to the bus by the vehicle devices, would that be under a standard specified by the SAE?
A Well, the SAE has a number of different standards, and different bus architectures have different standards. And that establishes the physical and the data link layer communication on that bus, not what happens in terms of how it gets to the bus or how it -- but it's what is on the bus.
Q And is the format of those messages specified in an SAE standard?
A Yeah. Each particular type of bus architecture would come under a different SAE standard, such as the J1850PWM or V-W or the CAN bus standard.
Q You mentioned CAN a couple of times, and I believe you said that in 2008 that became mandatory in the United States; is that correct?
A As I recall, that was the right day -- right year. I understand it was not everyone conformed on that day, but that was when it was mandated and I think there was some -- several years later that others, especially some

of the trucks were years later, 2011 as I recall, but 2008 was when it was mandated to begin the conversion.
Q Do you have an opinion on if I were to purchase a light-duty vehicle today, something under 8,500 pounds in the United States, would it then have a CAN bus inside of it?
A It's supposed to be under a CAN architecture, yes.
Q And do you know if they use either a CAN 11 or CAN 29-bit under that standard?
A Under the standard they can use either, as I recall, but there has to be a CAN protocol that is used. And there is slight differences and different features that are available, dependent upon which architecture you choose.
Q And the CAN 29-bit format or protocol is simply an extended version of the 11-bit; isn't that right?
A I'm not sure I would characterize it as simple, but it is an extended version, and there are other features that can be done.
Q So is a CAN 11-bit message compatible on both of those, on both a CAN 11 and a CAN 29-bit?
A As I recall, most of the commands that were used were backward compatible, so the answer is yes. Some, but not all.
Q You mentioned when you were talking briefly about

the different parts of the patent's embodiments and that there were various embodiments, but you had to have at least one; is that correct?
A Yes, that's correct.
Q Can you have an embodiment shown in a patent that's not claimed at the end?
A Yes. That's part of where you get with continuation patents. Sometimes you will go back with a continuation patent that's filed after the other one was filed and begin to claim other embodiments of the invention. Not all embodiments have to be described in the claim.
Q So you can save some for later and claim then in a later continuation?
A Or you can claim them in other claims, either within that particular patent or in later patents.
Q And you also talked about the difference between the independent claims and dependent claims. And you mentioned that the dependent claim had to have everything that was in the independent claim: is that correct?
A Yes, that's correct.
Q So in doing an infringement analysis, if you determine that a device does not infringe an independent claim, is it possible for that device to infringe a claim that depends from that independent claim?
A No. All of the elements have to be found in the

independent claim to be practiced or present, and then and only then can you kick in a dependent claim.
Q In your previous testimony, you mentioned a person of ordinary skill several times, and I think you were asked to determine just a few minutes ago what control function would mean to a person of ordinary skill in the art at the time of the filing. So for the '876 patent is that the 2000 date that was on the face page?
A I believe between the sets of patents there was, as of 1996 for the two '876, '885, and I believe it's 2000 -- 2000 for the '727 and '278. But the level of skill in the art, whether it's 1996 or 2000, would be the same.
Q So what's the filing date of the '876 patent?
A The '876 filing date is May 31st, 2000. That's found right here.
Q And the 1996 date you mentioned, where did that come from?
A The 1996 date is here. That's basically looking back at the patent, the parent patent, which is the '551.
Q And I believe you mentioned earlier that if a patent is a continuation-in-part, there's new matter added, and that's what differentiates it from a straight continuation; is that correct?

A Generally speaking that's correct, yes.
Q And in this chain that you see in the Related U.S. Application Data box, is each of these patents a continuation-in-part of the previous one?
A It is.
Q So new matter was added along the way?
A That's a fair characterization, yes.
Q And you've submitted an expert report in this case; is that right?
A Yes, I have.
Q And in your expert report, you didn't provide any opinion regarding the priority date to which the '876 patent is entitled, did you?
A That's correct. I was not requested to do so.
Q And is that true for the '885 patent as well?
A Yes.
Q And the '278 and '727 patents?
A That's correct.
Q Have you ever previously provided an opinion on the priority date to which any of the patents in suit are entitled?
A I recall us talking about this at my deposition. And I believe that we had discussed the '885.
Q And after your deposition, did you look and see if you had actually provided an opinion on priority for the

'885 patent previously?
A No. In fact, as you recall, the information you provided was redacted information. It was not complete. And I could not offer an opinion. I had no other information to look at.
Q You didn't still have a copy of your report?
A No.
Q Another thing you mentioned today was the different parts of the claim, the preamble?
A Yes.
Q And I believe in all four patents that you looked at with counsel, you found that the preamble was not limiting?
A Yes, that is a correct statement.
Q Did you set out the standards for whether a preamble is limiting in your expert report?
A I would have to go back and look at my expert report. I established the fact that the preamble is a -- it sets the environment. I did not set -- I don't believe I set forth anything about it limiting -- on its face, it's not limiting.
Q In your expert report did you say that if a preamble gets antecedent basis or provides antecedent basis to the body of the claim that it's, therefore, limiting?
A That's not correct. If it has antecedent basis the

question is does it breathe life into the claim, and I found that it does not.
Q And is that true for all four of the patents in suit?
A That is correct.
Q I'd like you to take a look -- we'll put up Plaintiff's 11, which was a diagram you testified on earlier. Is that still in your stack? We'll put it on the screen as well.
A The schematics? Yes.
Q And if you'd turn your attention to the page marked 731 in the lower right-hand corner.
A All right.
Q And could you remind me. I recall you mentioned that something was a diagnostics board. Can you point that out on the diagram again?
A Um --
Q If I'm on the right page.
A Well, you're on the right page. The name is on-board diagnostic. It's OBD. That's just the -- it's called an OBD board by CalAmp.
Q Okay. And I believe in your testimony earlier, you referred to it as a diagnostic board?
A It is, because it provides -- it's a diagnostic type interface, but in itself does not -- it's not limited to

diagnostics, per se, because it performs a function of interfacing to the OBD-II bus.
Q Can you expand a little bit on what you mean when you said -- I think you said a diagnostic type interface?
A Well, sometimes you can use interfaces to perform diagnostic type work. Basically, you can provide information across a bus and determine certain features or factors of the devices that are associated with the bus. This is done by -- this can be done using tools that, for instance, are done with inspection. You can take it to an inspection station, they'll plug something in that's external to the vehicle and run some diagnostics, some tests. Diagnostic basically can be equated to test.
Q And I believe in your testimony before there were a couple terms floating out there, and I'd like to try and narrow down what they are. You mentioned a command. Was that a signal that's written onto the bus? Is that correct?
A A command signal eventually finds its way to the bus. The language is really used -- normal usage is called, "it generates the bus."
Q And do you recall what the definition of a command signal is for the purpose of this case?
A Rather than remembering, I'll read it. Command

signal is defined by the Court as, "A signal generated on the data communication bus for operating a vehicle device."
Q Okay. So one type of signal I can generate onto the bus is a command signal. Are there other types of signals you can generate onto the bus other than command signals?
A You can generate a response signal.
Q And would that be the upward arrows we saw in Figure 4 coming from the vehicle devices?
A Well, the upward arrows coming from the vehicle devices, in the context of the way the description was written, those were responses. But you can also use the other devices on the bus as generators of commands as well. It just depends. But the way they were described and the way the embodiments were envisioned, it's generating the bus from the controller, multi-vehicle compatible controller, and elicited in the responses from the other vehicle devices.
Q I believe you also used the term "messages" earlier in your testimony. Is a message the same as a command?
A A message is a format of a command. You can --
Q Can you explain that one a little more for me?
A Sure. I don't want us to get tongue-tied on words. The command literally is a set of code that is provided

as a part of a signal. It's an encoded signal. And that is sent out and is received by components that it's directed to. The components then receive that information and they respond accordingly.
So that's -- it's a command signal to generate the bus. And then that generation on the bus, that downstream device will elicit a response. It may be a response back across the bus or it may be a response to control something downstream from that other device.
Q And the SAE actually defines those types of messages on the bus, doesn't it?
A The SAE that we're talking about for the bus architecture, that is confined to the bus. It's the protocol of communication on that bus. A simple example: It's like taking two cans with the string between them. And we know that if we talk, it will vibrate the string, and you can hear at the other end. The SAE standards defines the protocol on that string, the vibration on the string. It doesn't define how you talk or what language you use nor does it define how you receive and the language you interpret it. It only defines the architecture of the bus.
Q But it does classify what you can say into the can, doesn't it? You have either requests or responses?
A It does have a set of criteria that you can use that

you have to comply with or you can use subsets of it, but whatever you use has to be in compliance with the particular architecture and the protocol.
Q Are you familiar with an SAE 2178 that says you can either message or you can either request responses?
A Yes.
Q And the requests are further broken down into commands and queries?
A I don't recall that. Do you have the patent here or that SAE in front of you?
Q I could -- this might refresh your recollection.
MR. KAUTH: May I approach, Your Honor?
THE COURT: Yes, you may.
(Pause in proceedings.)
A Okay, I see that. It just says, request, that is, commands (load or modify) or queries for data. And then it says, responses, that is, reports or acknowledgments. Um --
BY MR. KAUTH:
Q So do you understand that to mean that commands are either loading or modifying something onto the bus and then there's something else called a query?
A I don't see that. The word is "or" not "and." It's not requests, but not commands and queries. It's commands or queries. And --

Q Correct. So a request can be one of two things, either a command or a query, right?
A Well, I'd have to read through the rest of the document to define it your way. Because when I see the "or", it can be two separate things or it can be two different ways of talking about the same thing.
Q And in your experience, have you ever come across this section before?
A I don't recall reading this particular one. But when I look at the definitions of terms and I look at it, it is -- it has to be consistent with the teaching of the specification, because we're construing the claim terms in light of the specification, not in light of an SAE document. So here --
Q Do you think one of ordinary skill in the art in the year 2000 would have been aware of that SAE document?
A I think one of skill in the art would be aware of SAE documents. Whether he had familiarity with this particular one or not, that remains to be seen. His particular discipline may not know all the documents, but he certainly has an awareness of SAE documents and certainly knows how he can get ahold of the documents, if it's necessary for his implementation.
Q For patent purposes, is a person of ordinary skill in the art deemed to be aware of all prior art

references?
A He's deemed to be aware of the fact that all references are available to him. It doesn't mean he has to have intimate knowledge of it.
Q And when interpreting the patent, do you interpret the claims in light of the specification as it would be viewed by one of ordinary skill in the art at the time?
A You interpret the claims. First of all, I think it turns on the claim. The claim defines its own scope. Then, my understanding is that the claim is read in light of or in view of the specification. So there has to be some consistency between the two. And so the term I use, it's internally consistent.
Q Let's turn back up to Joint Exhibit 1, back to the '876 patent and take a look at Claim 1.
A Okay. Are we finished with the speci--
Q We're finished.
A Okay.
Q Let's focus in on the quite long element that begins with a multi-vehicle compatible controller. And I believe you said the multi-vehicle compatible controller was a combination of the OBD board and the LMU board and something else that's escaping me?
A No. None of what you said is correct. What I said, it's a combination of the STM microcontroller on the LMU

board in combination with the -- with the particular controller that is on the OBD board in combination with the OBD interface chip.
Q And what about the multi-vehicle compatible part? You spoke briefly before about multi-vehicle, but I noticed when having that discussion you didn't mention the Court's claim construction of multi-vehicle compatible controller.
A As I recall, I mentioned early on in my testimony that I adopted the Court's claim construction, so yes I did.
Q Do you recall the difference between the Court's construction of controller and multi-vehicle compatible controller?
A The construction for controller, according to the Court's memo, is electronic circuitry that performs one or more control functions. Multi-vehicle compatible controller is electronic circuitry that performs one or more control functions -- in other words, a controller -- and can operate with more than one vehicle.
Q And what's your understanding of "...and can operate with more than one vehicle"?
A It's compatible with more than one vehicle. More than one vehicle, I think it's plural, which is two or more, so it's more than one vehicle. It's compatible

with that. It can operate with it. It can communicate with it.
Q So any two vehicles?
A If I looked at the definition that the Court provided the answer is it's with more than one vehicle, so it's two vehicles.
Q Okay.
A Just with that definition --
Q And that's the definition that controls in this case, right?
A And one must use that definition back within the context of the claim, not as stand-alone.
Q If we turn our attention back to the claim language, after as we get past multi-vehicle compatible controller and at the vehicle, it says it's cooperating with said transmitter and receiver. What does cooperating mean in that context?
A Well --
Q Or what did you interpret it to mean for your purposes of your infringement analysis?
A Well, what I interpreted for my infringement analysis is, is look at it from the opposite. If it doesn't cooperate, then that means there's no communication between the two. They're not cooperating together. They're not communicating together to achieve

something.
Q So they would need power to communicate with each other, wouldn't they?
A They would be what?
Q They would need power?
A No.
Q So --
A I can -- there's power that's going to the light in this courtroom. And there's power going to the light in another courtroom, I would hope. That doesn't mean that this light system and that light system in the courtrooms are cooperating together. They're different. They're independent.
Q If you could turn to the side there and pick up one of those LMU devices for me.
A Sure.
Q And can you tell me which exhibit that one is?
A This one is Exhibit 11, which is the 3000.
Q Okay. And I think you testified that in that LMU-3000, there is a multi-vehicle compatible controller, and it's cooperating with the transmitter and receiver; is that correct?
A Yeah, that's correct. That's correct.
Q Is it your opinion that right now the controller and the transmitter and the receiver are cooperating with

each other or would they need to be powered up to do that?
A I'm reading the claim. Just one second.
[Reads silently.]
Based on the claim language, it says, the structure of the control system has a transmitter and a receiver. It has a multi-vehicle compatible controller. That the vehicle, in cooperating with the transmitter and the receiver generate -- it says, multi-vehicle compatible controller generate at least one set of command signals.
Well, in an operation it's going to generate at least one set of command signals. That's its intended purpose. That's its only purpose. Right now it has no purpose other than sitting here. But it's intended purpose only has one purpose, and that's for cooperation in the system with a vehicle and in cooperating and connecting to a data bus, a vehicle data bus.
And so in that kind of a context, the controller is not only electrically tethered to or connecting to the transmitter and receiver, but it actually, based on the firmware and when it operates, it necessarily has to cooperate with a transmitter and receiver, because it's connected to them for performing that function.
Q But the claim doesn't say connected or coupled or tethered, right? It says cooperating?

A Well, it says the word cooperating. It means that the function that is performed, what it is doing is cooperating with. It's utilizing the transmitter and the receiver, and it does.
Q When in use?
A In use, definitely it does.
Q But sitting there, it doesn't?
A It has only one intended purpose, and that is for that use.
Q I understand your opinion on its intended purpose, but what's its current operation right now?
A Well, I think it's current operation, it's just sitting here and it's an infringing product, if it's on sale, if it's for use. I have heard testimony the last two days where CalAmp employees had indicated that they tested the device, so it is an infringing product.
Q So in the past you've heard testimony it was used, you think it'll be used in the future, but right now it's not actually cooperating?
A Well, in terms of is it cooperating while it is sitting here, I'd say all of the structure for its use is there. All of the structure is there. It's the only intended use for its sale. Is it sitting here cooperating right now? No.
Q So we can't ignore any language like that? If they

wanted it to have a purpose right now, they could have said configured for, electrically coupled to, something like that, but they chose cooperating, right?
A Well, the word in the claim is cooperating.
Q The next clause after that says, said multi-vehicle compatible controller generating at least one set of command signals on the data communications bus.
And I've got a similar question for you now. It can't actually generate a signal without power, correct?
A It has all the structure and the firmware to do exactly what that says. And when it is plugged in, when it is used, then in use it is definitely cooperating. It is definitely generating.
Q So in your opinion, when it did that bus discovery, I think you called it, then it was generating the command signals?
A That is correct, definitely does. And just to qualify, even sitting -- as here, it is sold. As sold, it is -- it is an infringing device when it's used. And when it is sold by CalAmp to a customer, they are inducing that customer to use it.
Q But that's not direct infringement, correct?
A That's called indirect infringement.
Q And did you include that in your report?
A Yes.

Q Did you identify any CalAmp customers you believe to infringe?
A I did not -- I was not asked to identify the customers, no. I think there was another expert that is going to talk about that.
Q So you speculated that there was a customer out there that would actually use it?
A No, I didn't speculate. There's deposition testimony that says it was used.
Q The bus discovery process that you spoke about earlier where it sent the different bus protocol messages, is that in compliance with J1978, the SAE standard?
A I'm not sure what you mean by "...in compliance with." The J1978 standard defines scan tools.
Q And in that standard, does it --
A The messages are done in accordance with what is shown as parameter IDs of J1979. I don't know if that's one you mentioned -- meant, but that's the one that it conforms to.
Q And J1979 defines the message format for each of those different messages?
A It defines the different formats for the PID instructions, for the PID information.
Q Do you have your expert report up there? If we

could turn to that, to your Exhibit A, please?
A Exhibit A? Okay.
Q I believe that's Plaintiff's 105. And if you could turn to Exhibit A, page -- I'm sorry. I misspoke. Exhibit 104.
A And for clarification, it's the '876 patent?
Q Correct. And can you tell me where in that exhibit you go through the bus discovery protocol. Is that what's on page A-5?
A I show a chart on mine. It's A-8.
Q Let's step back to A-5 before we get to A-8.
A All right.
Q And beneath a picture of what I believe is at the OBD board I'm looking at?
A Yes, that's correct.
Q And the text below that, is that describing the bus discovery procedure?
A Yes.
Q And as we get down there, it starts listing a series of messages, and the first one is CAN 11-bit 7DF. What's the 7DF mean?
A That would be in accordance with the PID's. And it's a specific instruction specifically to address the -- I'm trying to recall exactly which one that one is. I think it's speed for this particular one.

Q And is the 7DF, is that a hexadecimal value?
A It's -- in this case, 7DF, each digit represents four bits, so it's a 12-bit set of information. Yeah, 7DF is hexadecimal. In binary, it would be 7, 13, 15.
Q And is this my mode 1 PID zero message that I put onto the bus?
A That's correct. Mode 1 being the real time mode.
Q And that's -- is it addressed to the ECU or ECM, the engine control unit?
A That's correct.
Q And you mentioned that since 2008, CAN bus has been mandated, I believe, for passenger vehicles in the United States; is that correct?
A As I recall, correct, yes.
Q So in this case, if we had a CAN vehicle with an 11-bit bus, would it send all of these messages that are shown in your chart?
A Say that again. If we already knew what the bus was? Is that what you're asking?
Q If I went out and I bought a vehicle today, my understanding is it would have to have a CAN bus in it. And let's say I got lucky and it had an 11-bit CAN bus in it. If we plugged the LMU into it now, your chart says it has, I think, six different messages it sends out. I'd like to know in those circumstances which

messages would it send out?
A Well, it will start in a sequence, and it will send out a message one at a time. And if it gets a response, then it will stop sending further messag-- there's no need for the further messages. But in the information that I saw, it would indicate that it's going to send out all series of this information. The results are going to be either a non-accumulator event or an accumulator event. And then, at the end of that time, once it sends out the sequence of bits, it will then go back and do a determination or discovery as to which one matched.
Q Earlier, I thought you said if you got any response back you had a match?
A Well, if you do have a response back, you have a match. The question is when is the determination made. If you send out a series of information, then you evaluate the information, and whichever one responds back is the match.
Q And you had testified earlier, I believe, that these messages are sent out sequentially?
A That's correct.
Q So are you saying now if I send out the first message and I get a response, I'll send out the other five messages anyway?

A You send out the messages and you accumulate the response, then you look at the result of the messages trafficked and determine which one has a match.
Q So your opinion is regardless of bus type that you're on, all six messages will be sent?
A That's my understanding, that is correct. And I think in Bergesheimer's testimony, he even looked at the particular sequence that I had identified in my report and indicated that he was not familiar with whether it was that exact sequence, but he affirmed the fact that it was a saquence.
Q And are you familiar with the order that the CalAmp devices send the messages?
A I believe that was defined in my report, yes.
Q And is it the order shown in your chart, Exhibit A, in the page we're looking at, A-5?
A Let's look at A-8, page A-8. Unfortunately, I cannot read it in my report. Can we enlarge that?
Q And what are we looking at in Exhibit A-8?
A It's a statement as to the way in which the sequencing of operations occurs.
Q And did you create that chart?
A No, I did not. It was provided to me.
Q Do you know who created that chart?
A I do not know the name of the individual. I do know

that it was a company that is in the automotive activity and it was done, performed, and was provided to counsel. Counsel provided it to me. I cannot --

Q Do you have any details as to when or how it was created?

A No, sir, I do not. All I know is that it's been affirmed through the deposition testimony as -- couldn't affirm that it occurred exactly in that precise order, but there was a sequence and it did address each one of those. That's been confirmed by the deposition.

Q So you call Mr. Hergesheimer testify that there was a sequence, but he didn't know if this was correct?

A Didn't know that it was exactly the same, but he confirmed that it was a sequence. So there is a sequence. And the sequence is you send out a particular message, command, and you get a response or don't get a response. And then at the end, you look at it and see what was accumulated and what was not. And that way you determine, you discover which bus architecture's present.

Q So for purposes of your report, you deem this to be correct, even though you're not sure how it was created?

A I deem it to be correct and especially as affirmed by the deposition testimony.

Q That there was some sequence?

A That there is a sequence and if, as I recall -- yes, that is correct.

Q Just because Mr. Hergesheimer testified there was some sequence doesn't mean it was this sequence, does it?

A No. It does not mean that it was this sequence. It means that there is a sequence. There are messages that are sent out in the form of command signals and then there is a discovery process to determine which one matched and where there wasn't a match and that's part of the discovery process. There's other documents that I also looked at and reviewed as part of the presentation document. I don't remember the exact exhibit number that I presented earlier. There are pages in there that also show a sequence of going out and looking at the various bus architecture.

Q Can you step me through how this sequence works, and the jury, so they can understand the triangles, diamonds, and other shapes?

A A little bit larger.

Q Let's see if we can zoom in sort of on one column at a time to get that as big as possible. We'll try and scroll with you, so --

A All right.

Q Where do we start?

A Main thing is as long as the jury can see it.

During a power-up sequence, it goes to a learning phase. And first of all, it assesses do I already know what the bus is. If it says no, then I will go to the right, and I will go through a sequence of steps. The first one shown here is sending out the message format, the one we talked about, 7DF, looking for a response based upon a CAN 11. And if you'll go down just slightly. You wait for a response. If you get a positive response, you will notice -- a little bit lower -- you accumulate that response. It goes into a storage.

Q So now I know what type of bus I'm on?

A No. Now you know that you have a response, and the response goes into an accumulator for further discovery, for further analysis. All it does is if it receives information, it stores the information. And then, you will notice whether it got a positive response or not -- both lines, if you go back up, go to the next sequence.

So it sends out a message. If there's a response, it stores it. And then, it goes to the next and the next and the next. And so, it sequentially goes through the various messages that are generated to the bus. And then at the end, it does an analysis to determine which one or more of those storage registers actually has information, and then it knows.

Q And where is it storing the information? Where is that shown on this chart?

A If you can scroll down slightly, there. Save. Save means store.

Q Can you tell me where that means it's being stored?

A Being stored in memory.

Q And then, we go through all six?

A Yes.

Q And then, what happens after the last one?

A Scroll over to the right. You will notice after the last one, if you will notice the lines going from the right over to the left, just follow those two lines.

Q All right. Can we scroll back to that one following those lines?

A And so now you will say is there a learned net type. Well, yes, I have information it's stored. I've got information now that I can say I have accumulated that it's there and registered, so I don't need to go back and re-generate the sequence of messages again.

So since I do have a type that's been identified -- I don't know what it is yet, but it is a type -- then I'll go down to the -- it says go to learned net type, and that goes down to the bottom. And now, you go through and evaluate the information that is stored and you set bits dependent upon which type actually had a

response, and that's the way you learn.
Q And as we go down farther so it looks like there's a rectangle for each bus type and then the CAN bus is collapsed together there; is that correct?
A That is correct, because there's two CAN buses, 11 and 29 bit.
Q Do you recall having a discussion about this at your deposition? Let me ask you a better question.
A I was going to say I don't recall. I mean, that was up to you asking the questions, and I don't recall.
Q If you sent one message and didn't send anymore, is it your opinion that the device would still infringe if it only sent one message, just with respect to the '876 patent?
A Well, with respect to the '876 patent, the '876 patent has the limitation of sending a working and a non-working. It says, generating at least one set of command signals on the data communication bus.
So generating, delivering signals to the bus. At least one set of command signals comprising at least one working command signal and at least one non-working signal. So -- command signal.
So to measure up to the claim requirement, the whole purpose is a multi-vehicle compatible controller that can generate a series or a sequence of generated

commands and determine whether there is a response.
And so, you're generating some commands that will get a response and some that will not, so that goes into what I described earlier is the working and the non-working command.
Q So there's got to be at least two command signals to satisfy that claim?
A It's one set of command signals that require a working signal and a non-working signal.
Q And if I have one set of command signals comprising at least one working command signal and at least one non-working command signal, don't I have at least two signals?
A Those are two separate signals, yes.
Q Okay.
A They're sent sequentially as I talked about before.
Q So if a CalAmp device only sent a single signal, it couldn't infringe Claim 1?
A If it only sent a single signal, then it can only -- it would either have to have operator knowledge of exactly what the bus was so it sent that signal and/or it would only be compatible with one device or one type of bus architecture. So what is arranged here for this claimed invention is the fact that you can have a controller designed to work and be compatible with

multiple vehicle devices and that's why you send out different signals to see which one matches.
Q These days, if I only send out a CAN signal wouldn't I be compatible with an awful lot of vehicles?
A Sure, you would. But you don't know if it's CAN 11 or CAN 29.
Q Don't those actually become one in your chart? They collapse down together since the 11-bit's compatible with both? If I send a CAN 11-bit signal, it will work with either one?
A Well, if you notice in the chart, they only collapse down to one after a determination, a discovery, is made, and that's after the claimed invention.
Q Do you know what the split is among 11-bit and 29-bit?
A Yeah. One's 11-bit and one's 29-bit, difference in construction length.
Q So, I believe we've established that since 2008, all of the passenger vehicles in the U.S. had to have CAN bus for new vehicles, and that's either going to be 11-bit or 29-bit, correct?
A That is correct.
Q So if I picked either one, 11 or 29-bit, it's still going to be compatible with an awful lot of vehicles?
A Well, sure. I mean, you make a pre-determined

selection of one, there's going to be some vehicles that it will work with and some that it will not. Doesn't change the fact it's a multi-vehicle compatible controller that is structured to send out multiple sequences so that it can determine which bus architecture it really is.
Q And in your opinion, if I had the pre-determined controller, I only want it to send the CAN 11-bit signal, is that still a multi-vehicle compatible controller?
A In your hypothetical, I'm assuming that's what you're proposing?
Q That is a hypothetical.
A All right. In your hypothetical, if you have a controller that only has the ability to send out the 11-bit CAN, that's not a multi-vehicle compatible controller, if that's its only capability.
Q And why isn't it multi-vehicle compatible?
A If you're trying to draw a -- I see where you're going. You're trying to take the claim term that the Court has properly construed, put it back in this claim and say, hey, listen, the claim is not directed to vehicles having different buses. It can just be a single bus type and you have multiple vehicles and that is inconsistent with the claim in view of the specification.

Q So I shouldn't follow the Court's construction that simply says more than one vehicle?
A No. You follow the Court's claim construction, but you put the claim construction back into the claim and you read the claim in its entirety, which is a multi-vehicle compatible controller. You can't eliminate that portion of the limitation just because you put a particular claim term back in.
Q But you just told me that if I had a CAN 11-bit controller, it would be compatible with multiple vehicles, probably half the ones made since 2008?
A Well, if you have a device that only can issue one type of command structure, which is compatible with just the CAN 11, then I believe that that can control many, many devices that are compatible with CAN 11, but that is not -- that, to me, is not consistent with where the invention is directed and that is that you've got potentially different data bus structures. You're not aware of what that data bus structure may be.
Now, you can flip a coin. You might be hit or miss and say this is what I'm going to do and what I'm going to rely on. That's fine. Except if you happen to be in a vehicle in which it doesn't have that kind of a bus architecture, you're out of luck.
So I understand you're trying to limit it -- I

believe I understand you're trying to limit it to just two vehicles. It doesn't matter whether they have different structures or not. And I think it's inconsistent with what the claimed invention is directed to.
Q Can you point me to something in the patent that makes you believe that it needs to be multiple buses and not multiple vehicles? The claim language says multiple vehicles.
A Sure.
Q The claim construction says more than one vehicle, but you seem to be saying we have to have more than one bus: is that accurate?
A Well, I think it's consistent with the claim, but I'll direct your attention to a number of places, but let's just focus on column 3. Column 3 in the Summary of the Invention, which I talked about earlier. Column 3, beginning at line 5, you will see that it begins, the description and features and advantage in accordance with the invention, it says, "...are provided by a vehicle control system including a transmitter and a receiver for receiving signals from the transmitter and a multi-vehicle compatible controller cooperating with the transmitter and receiver."
Now, the key is the multi-vehicle compatible

controller preferably generates at least one set of command signals on the data communications bus for the at least one vehicle device.
So you have to take it in context. The vehicle device that's there is already set up within the control system of the -- within the vehicular bus architecture system. And that vehicle device is already compatible with that bus architecture, and it only responds with that kind of a bus architecture.
So when you look at this claim and you put it in the context of what the invention is describing, it said, look, you have two different scenarios prior to this. One scenario is everything is hard wired. And so you only have one unit that can cooperate with one type of architecture, hands down, you're dead.
Q When you say every -- let me interrupt for a second. When you say everything is hard wired, do you mean the vehicle devices?
A That means the vehicle devices are hard wired by each having a -- in fact, Mr. Flick had described that. You have different devices that have a unique wire back to the controller so the controller's set up to uniquely talk to each one over separate wires. There is not a common bus system.
Q But in 1996, wasn't the bus already mandated in the

U.S.?
A 1996 was a bus architecture, but I'm still saying that was one of the background of the invention. That's what the state of the art was. Then you get into the data bus system. And so, you then are left with data bus architecture that Chrysler used a different bus architecture than Ford and GM. Even though GM used the J1850, they used a different standard than the Ford that used the J1850, two totally different standards. So you can have a control system that cooperates with any one of those device bus systems by itself, but it could not operate on another bus.
So this invention is directed to having a multi-vehicle compatible controller within a control system that is able to have one unit design one way conforming to one set of electrical capability. And you can put that in any one of the vehicles, and it can figure out which bus it's on and configure accordingly. That's the invention.
Q So let's say I'm in a Chrysler. I believe back in 1996, that would have been a CAN bus. Wasn't this invention actually directed to --
A Chrysler was a 9141-2 bus ISO, at that time.
Q And isn't that a CAN flavor?
A There's some similarities, but they're different.

Q Okay. Let's go with ISO 9141-2.
A Okay.
Q Isn't the invention actually disclosed here saying if I'm on that bus, I can have multiple device codes for different varieties of Chrysler vehicles so I can send the door unlock code for a Cherokee, a Grand Cherokee, a minivan, whatever it is?
A Well, once you're configured for it, yes, you can.
Q But aren't those all separate device codes or -- I'm sorry -- command signals?
A Well, each one -- once you are configured and you know what the bus is and you discover the bus, then obviously you're going to be able to communicate to that bus and provide the functions and the controls that are necessary to cooperate with any of a number of devices on that bus, but that's once you already learned it.
Q So you're saying it's obvious to be able to communicate with vehicle devices on different vehicles as long as they share the same bus?
A I'm not sure -- because different vehicles can't share the same bus. I'm not sure if I'm -- I'm not hearing your question right.
Q I mean, share the bus same protocol. All the Chryslers back then had a 9141-2, right?
A That's correct. And so, you could design a system

that would specifically work with a Chrysler bus system, and it would work with a Chrysler bus system, but it would not work on Ford and GM.
Q Right, so let's just stick with Chrysler. If I have that system, it's designed to work on the 9141-2, not all Chryslers require the same command signals to, say, unlock the doors, do they?
A No. Different models may have different ways in which they cooperate using the commands that are available within that architecture.
Q And wasn't this patent actually directed to being able to have all those different command signals already being on the Chrysler bus and send the right command signal to unlock the doors for the particular vehicle you're in?
A Well, that is part of the system it's able to do that. Once you've discovered the bus then certainly you're configured or provisioned in such a way that you can then respond to the devices on the bus.
Q If you could turn to Figure 3 of the '876 patent, Joint Exhibit 1.
A Okay.
Q Doesn't that figure describe a set of command signals? It says, Command Signals Table. And you would choose -- keep sending them until the desired activity

happened?
A Yes.
Q And this is after you've already discovered what bus you're on?
A This is after, yes.
Q Can you point me anywhere in the patent where it talks about bus discovery?
A It doesn't use the word discovery, as I recall.
Q Well, just the procedure of sending out the different signals till you find the right bus, where is that in the patent?
A A number of places. For instance, if you look at column 7. I think you're referring to, what, Figure 3?
Q Yes.
A So if you look at column 7, beginning around line 8, it now refers now additionally to Figures 2 and 3, so this is the column that is directed to Figure 3. And if you go down a little further around line 43, it says, "In accordance with this aspect of the invention, the multi-vehicle compatible controller 25 prime preferably generates at least one set of command signals on a data communications bus 30 for the at least one vehicle device. The at least one set of command signals preferably comprises at least one working command signal and at least one non-working command signal."

Well, if you already know what the bus is then the only thing you're going to generate is working command signals. So this says that you're generating a set of command signals that work and don't work.
Q So you're saying every Chrysler door lock command signal would be the same?
A I'm not saying anything. I'm reading the claim. The claim requires a set of control signals, command signals which --
Q Right. But I could be on a bus and send both working and non-working, couldn't I? Let me step you through it. Let's say we're on that same Chrysler bus. I've already discovered the bus. I've got my table of command signals. And I'm going to keep sending my entire library of Chrysler door lock command signals until the door locks, because there's more than one command signal for unlocking the doors. I think we heard testimony from that earlier.
A I'm not sure why you would want to do that. These are smart systems. When they figure out what the bus is and they define it with a VIN number or whatever, you know what the model is and so, therefore, you are configured to operate with working signals thereafter. Why in the world would you send a non-working signal when you already know what the bus is?

This is a process that you don't know what the bus is and you're sending working and non-working signals to determine what that bus is. The subsequent result of that is I now know the bus. I now know the architecture. Now what I'll be sending is configured working signals.

Q But just because you know the bus doesn't mean you know the door lock signal, does it? They're different among different Chrysler models, aren't they?

A When you get a response back -- we're looking at real time, you'll get a response back such as the VIN, then you know exactly what the model is. You know exactly what the signals are.

Q We're not talking VIN here. We're talking we're on the bus and we want to send -- 'cause this doesn't mention the VIN. What this has is a table of command signals, and it says you send the right one until the vehicle device operates?

A Right. But what you're doing is giving a real-life hypothetical example of sending out because different Chrysler products have. You're giving a real-life example. What I'm saying is once you've discovered what that particular device or that model is, you're going to send out working signals. You're not going to waste time on the bus controlling the business and sending out

non-trafficable information. You're going to understand what that bus is. That's the whole purpose of this intent, of this invention.

Q Isn't that exactly what table 3 shows, though, is you send out all those command signals and it says only the one that is the correct one will have an operation, so then you have working and non-working?

A That's the whole purpose of sending out information like this when you don't know what the bus is so you can look at the response, and when you get a response you now know.

Q Let's take a look back at Figure 3. Don't I keep sending codes for different vehicle types? There's no mention of bus types in Figure 3 is there?

A Well, what it's defining in Figure 3 is that there is a command signal table, and you have different codes that are associated with different vehicle devices --

Q So let's say what --

A -- and different vehicle types.

Q Pick a device for a vehicle device in it.

A All right, pick one.

Q Door locks.

A All right.

Q And then I have on the left column there, it looks like vehicle one, two, all the way through N, so an

unknown number of vehicles.

A All right.

Q Don't I go through that table and just keep sending them until I get the door to lock?

A You can't.

Q Isn't that what's disclosed in this patent?

A That is an illustration of what can be done in the patent, yes, it's basically send out commands and looking for a response.

Q But I can't find anything in the patent that tells me about sending different bus codes, bus protocols, the different mode 1 PID zero messages that we talked about earlier.

A I'm not sure where you're going with that.
A command signal on a data bus, that's a digital data bus is going to be code.

Q Well, where I'm going with that is I can see the patent talking about command signal tables and kind of doing the brute force method. You keep sending codes until something happens, and then you know you're on the right set of devices. You know I'm on a Ford Taurus.

A Right, which is exactly what the LMU-3000 and 3030 do. They send out a sequence of codes, and then they determine which one is responsive.

Q But I don't see anything in here about picking a bus

type. In fact, if we look at -- if you could turn your attention to column 8, beginning at about line 30 of the patent, doesn't it say the command signals you send out have to be bus compatible?

A Which line again on column 8 so we can --

Q I'm sorry, line 30.

A Thank you. I just want to make sure the jury had it in front of them.

Q Thank you.

A In the statement that you are looking at is -- at line 30 is, "The actual coded signals would be compatible with the particular data communications bus 30..."

Q Correct.

A Right. But you can't take that in a vacuum. Look at the paragraph above it. The paragraph above it, "...the multi-vehicle compatible controller...," beginning about line 24 says, "Of course, only one of those codes would be a working code, and the other codes would cause no vehicle function to be performed."

So the context, if you're on the right bus then the code is going to be compatible. If you're not on the right bus, it will not be compatible. That's the whole process of having a multi-vehicle compatible controller that's sending out working and non-working codes to

determine what is the appropriate response from the device. If it gets an appropriate response from the device, then it knows it has the right bus architecture.
Q But just because you do know the bus type doesn't mean you know the proper vehicle device code, do you, without doing extra steps? We're talking about in the world of the '876 patent.
A Well, in the world of the '876 patent, and even in the world of vehicle data buses, the bus is nothing more than a set of wires that connect devices together. The bus does not respond. The bus is the path through which devices respond.
So when you send out commands, the commands are using the pathway of the bus to another device. And if that other device understands the command and responds back across that bus, then you have a linkage that says the protocol that I'm using consistent with that bus, got a response. Therefore, I now know what the bus is, and I can appropriately configure according to that. That's the claim. That's the invention.
Q So if we look at the top of column 8, it's talking about sending multiple control -- I'm sorry -- command signals.
A Yes.
Q But it's not talking about doing it for different

bus types. It's talking about doing it to find the right command signal.
A Well, sir, that's what working and non-working is. If you have a non-working command, then the protocol, the communication language you're using, the device that's sitting on that bus can't comprehend it, cannot understand it, so that's a non-working command signal.
Q So in this patent, they're sending out codes until one works -- unlock the door, unlock the door. And when the door finally unlocks, then they know they sent the right command signal; is that correct?
A They're sending out command signals to a device, to one or more devices and seeing when they can get a response. And the response is not that the door is unlocked. The response is that I have a device that understood the command to unlock the device and sends a response back to you, so the thrust is communication across the bus.
Q I've got to look at what's actually disclosed in the patent. It says, "The multi-vehicle compatible controller 25 may sequentially generate the different command signals (working and non-working) for an intended vehicle device.
A That's correct.
Q So this is not for different bus types, different

vehicles? This is for one specific vehicle device, I'm going to send working and non-working command signals, right?
A Yes. And please understand, you're trying to conflate these things 'cause one vehicle device -- you can take a device, such as the engine control unit, and you can put it on different bus architectures. The protocol for communicating to that is going to be different because it's under a different bus architecture. So even if I had the exact same ECM, exact same engine control module on two different buses, I can send out a code to query that particular device. And it will only operate and only respond if it is consistent with the protocol for the bus in which it is substantiated.
THE COURT: All right, gentlemen. That's a convenient breaking point for the evening. We will recess for the evening tonight. We'll pick up tomorrow morning at 9:00 a.m.
Ladies and gentlemen of the jury, please refrain from discussing the case with anyone else, even amongst yourselves, and do not engage in any independent research, and I will look forward to seeing you tomorrow morning at 9:00 a.m. Thank you very much.
(Jury exits.)

The jury has withdrawn. The parties are present.
All right. Everyone is doing wonderfully with their pace. Please don't talk over each other. You're not really doing that Mr. McAlexander, but you are a bit, counsel, that when the witness is almost done answering you start the next question. I know when I was practicing, I did that all the time, so I'm not -- certainly not offended, but please be careful, because our court reporter is going to start throwing objects at you, if you keep it up.
MR. KAUTH: I understand, Your Honor.
THE COURT: Very good. See you all in the morning. Have a good night.
THE WITNESS: Thank you, Your Honor.
(Adjourned at 5:10 p.m.)
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Reporter's Certification
I certify that the foregoing is a correct transcript from the record of proceedings in the above matter.
s/Koretta Stanford
Official Court Reporter
United States District Court
Middle District of Florida Date: April 12, 2016

UNITED STATES DISTRICT COURT

MIDDLE DISTRICT OF FLORIDA

ORLANDO DIVISION

OMEGA PATENTS, LLC,
Plaintiff,
v.
CALAMP CORP.,
Defendant.

Case Number 6:13-CV-1950

FRIDAY, FEBRUARY 19, 2016, 9:05 A.M.
CIVIL JURY TRIAL - VOLUME IV (DAY 4)
BEFORE THE HONORABLE PAUL G. BYRON, AND A JURY
UNITED STATES DISTRICT JUDGE
ORLANDO, FLORIDA

COUNSEL FOR PLAINTIFF:
Brian Gilchrist, Esq.
Ryan Santurri, Esq.

COUNSEL FOR DEFENDANT:
Joel Kauth, Esq.
Eugene Chong, Esq.
Carrie Wozniak, Esq.
Charles Halloran, Esq.

*Proceedings recorded by mechanical stenography
Transcript produced by computer transcription*

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P R O C E E D I N G S

(Jury not present.)

THE COURT: Good morning.

COUNSEL: Good morning.

DEPUTY CLERK: This is the matter of Omega Patents versus CalAmp corp, case number 6:13-CV-1950-Orlando-40DAB. For the plaintiff, please.

MR. GILCHRIST: Brian Gilchrist and Ryan Santurri.

DEPUTY CLERK: And for defense.

MR. KAUTH: Joel Kauth, Eugene Chong, Carrie Ann Wozniak, and Charles Halloran.

DEPUTY CLERK: Thank you.

THE COURT: All right, good morning.

Are we ready to get started?

MR. KAUTH: Yes, Your Honor.

THE COURT: All right. Let's have the jury.

(Jury present.)

The record should reflect the jury is present. The parties are present. We have the witness, Mr. McAlexander, in the witness stand.

Good morning ladies and gentlemen.

THE JURY: Good morning.

THE COURT: I hope you had a good evening last night. I need to inquire again whether anyone has

discussed the case with anyone else or amongst yourselves or conducted any independent research. If you have, please raise your hand. There are no affirmative responses. We are ready to go.

Counsel, Mr. Kauth, when you're ready.

MR. KAUTH: Thank you, Your Honor.

CROSS EXAMINATION (Continued.)

BY MR. KAUTH:

Q Good morning, Mr. McAlexander.

A Good morning, sir.

Q I'd like to pick up our discussion. And we're going to start with Plaintiff's Exhibit number 104. If you could turn to Exhibit A at the back of that. It's your report. I think you've got the notebook version.

A Exhibit A?

Q Yes.

A Yes, sir.

Q And if you could turn to the -- page A-5 that discusses the bus discovery queries there at the bottom.

A Yes, I have it.

Q You mentioned the flow charts that I believe is also included in this exhibit a few pages later. Did you have any other basis for determining what message or messages the CalAmp device sent upon start-up?

A As I recall, there was a presentation that was

presented that was produced as one of the documents, and it indicated a sequence of information that was used.
Q And did it indicate these specific six messages as well?
A I believe in some instances, yes. Maybe not in all.
Q If you could turn three pages back to the page marked A-8. Bear with me while we make sure we get a piece up so the jury can see this. Now we discussed the flow chart a little bit yesterday, and I believe you said you did not create that chart; is that correct?
A Yes, that's correct, I did not.
Q Do you know what type of device was used to create this chart, meaning which CalAmp device was it connected to?
A The 3000s, I recall.
Q And do you know any specifics about the device or how it was created, how this flow chart came about other than it was an LMU-3000?
A I'm not sure what you mean in your question. I understand that the testing was performed, a testing operation up in Michigan.
Q And how did they perform that testing operation?
A Um --
Q Is there any equipment involved is what I'm trying to ask you?

A Well, there was equipment involved, but I was not present, so I cannot attest to what that equipment was.
Q And was testing done on the LMU-3030 as well?
A I do not recall.
Q This flow chart, though, only applies to the LMU-3000?
A It applies to a 3000, but the testimony indicates that this is -- even though there was not a verification that it operates in this exact sequence, there was at least affirmation that a sequence like this is used in both products.
Q But you haven't independently verified the steps of this flow chart, correct?
A I have independently verified, based upon the produced documents by CalAmp that a sequence does take place for the discovery process. But independently testing, the answer is no.
Q And in your opinion, did the testimony from CalAmp confirm that the device sends all six messages and stores into memory and doesn't actually send the messages one at a time, waiting in between each message?
A It does send each message one at a time, so I'm not sure how --
Q In your testimony yesterday, I believe you said even if it got a positive response, it would continue sending

the messages so that in any instance all six messages were sent; is that correct?
A In my understanding, the decision as to whether it got a response or not is done after the sequence of messages are sent.
Q So that's a yes?
A It does the sequence of sending of command signals and receiving on the read aspect of the bus, receiving the information, then it performs the discovery or evaluation part.
Q But you didn't independently evaluate that if you sent the message type that corresponded to the bus the LMU was currently attached to that it would not send any further messages; is that correct?
A I have represented what is in this chart. And as affirmed by the deposition testimony from CalAmp's witnesses, as well as the presentation of the documents that indicate that such a process is performed.
Q But no one actually testified that it would send all six messages, even if a positive response was received; isn't that correct?
A As I recall the testimony, the testimony was they could not affirm that exactly this sequence was performed, but this was a sequence that was performed, so I believe that affirmed it.

Q When Mr. Hergesheimer said he wasn't really familiar with this, but he knew there was a sequence involved, that's what you're basing your reliance on?
A That's correct.
Q And since he used the word sequence, you're assuming that meant all six messages, no matter what?
A What I understood was that there is a sequence that is performed during the discovery process and that there is, based upon that sequence of information, messages that are sent that based upon the response from those messages the one in which does, in fact, correlate with the bus requires -- then resolves a discovery match.
Q Are you familiar with the SAE J1978 standard?
A That is the standard for scan tools.
Q And do you know if that standard for scan tools includes the steps of bus discovery?
A I believe that it includes several steps in the bus discovery process, as I recall, in combination with 1979.
Q And in the J1978 specification, it says that it sends a first message and waits for a response and if it gets a response it doesn't send the next message; isn't that correct?
A As I recall, in J1978, it establishes a sequence that's done for each type of bus, specifies the message

to be sent. Your statement as to it waits for that one before it gets to the next one, I'm not so sure that is correct. I believe it states the type of messages and steps that are sent dependent upon the bus that's attempted to be discovered.
Q All right. I'd like to turn your attention back to the '876 patent, which I believe is Joint Exhibit 1. And if you could turn your attention to Column 8, and we'll put that up on the screen as well. And at the top of Column 8, that first sentence, can you read the very first sentence at the top of Column 8?
A Beginning on line 1, it reads, "The multi-vehicle compatible controller 25' may sequentially generate the different command signals (working and non-working) for an intended vehicle device.
Q So would those signals all be compatible with the same bus, in your opinion?
A No. Not required that they be compatible.
Q And when you see, "...for an intended vehicle device," how do you interpret that?
A Well, when you take the multi-vehicle compatible controller system, you group -- you incorporate that into a vehicle for the purpose of determining what the vehicle bus architecture is so that it could properly communicate that that's the intended vehicle. So you

take this system and you put it into one vehicle, one intended vehicle, and discover what its bus is. You can take that exact same multi-vehicle compatible controller and put it into a different intended vehicle device and discover it.
Q All right. Well --
A A vehicle -- excuse me -- a different intended vehicle that has a different device, and you can discover it.
Q If you could scroll down a little bit in that column to the paragraph beginning at around line 30. And that first sentence, can you read the first sentence there beginning at line 30?
A Yes. "The actual coded signals would be compatible with the particular data communications bus 30 as will be appreciated by those skilled in the art."
Q And if you go down, I think it's two sentences, there's a sentence that begins with, "For example..." And would that sentence -- well, go ahead and read that sentence.
A Sure. "For example, for an unlock of all vehicle doors to be commanded in a 1995 Jeep Grand Cherokee, the code may be 03868004. For a 2000 Jeep Grand Cherokee, the code may be 0422A00400."
Q And would those codes be operating on the same type

of bus, since they're both Jeeps?
A This would be directed to a command to unlock the vehicle doors for different vehicles, and there would be a separate bus in each vehicle so, therefore, there'd be a separate device on those separate buses.
Q And I believe yesterday you told me for Chrysler, and I believe Jeep's a Chrysler product, it would be an ISO 9141-2 bus; is that correct?
A That is correct.
Q So just to clarify, for the 1995 Jeep, it would have an ISO 9141-2 bus inside of it as would the 2000 Jeep in this example?
A That's correct. And in both instances, you may have different devices that are connected to the bus.
Q And so even though they're both Jeeps, it takes two different door lock codes? I can't just use the same door unlock code for every Jeep or door unlock command signal?
A It's the way that code was designed.
Q So if I sent these two command signals listed in the patent on a 2000 Jeep, only one of them would unlock the door, correct?
A That is correct. So once you discover the particular architecture for a particular vehicle then you will send the appropriate codes. That's what it

says.
Q So the 1995 Jeep command signal would be a non-working command signal, and the 2000 Jeep signal would be a working command signal?
A Well, once you've done the bus discovery, then you'd know by sending the code, both working and non-working, and once you discover what that is then from that point forward then the actual coded signals would be compatible, because you know what the bus is at that point.
Q But this doesn't discuss actually finding the bus out, does it?
A Well, that's in the preceding paragraph, which says that you can have -- it says in quotes on page -- on line 24 -- "Of course, only one of the codes would be a working code. The other code would cause no vehicle function to be performed." So you have a discovery process that identifies what the bus architecture is, what codes work. And then from that point on you would certainly, at that point, set up and configure the system for the appropriate codes.
Q If that's the case, then what's illustrated in Table 3 where they send multiple device codes -- Table 3 -- I'm sorry, it's in Figure 3 where they send multiple device command signals while they're on -- connected to

a single vehicle?
A Well, this is -- any time you have a multi-vehicle compatible controller system, as invested by Mr. Flick, you put that particular type of a control system into a vehicle, you have an intended vehicle. You're trying to discover that vehicle. And so at that --
Q This intended vehicle device, I believe, when it's--
THE COURT: Mr. Kauth, please don't speak over the witness. Let him finish his answer.
MR. KAUTH: I apologize, sir.
A When you are discovering that single device, you will be putting out different types of codes. Because at that particular point in time, you don't know what the vehicle is and you don't know what the particular bus architecture is. You don't know what devices are attached to the bus. So, this provides a command signals table that you can go sequentially through and send out the different codes to make a discovery process. Once you have a discovery process, then you know which vehicle and you know which codes to send from that point forward. And that's described in column 8 exactly where we were, beginning back up at line 11 which you did not read.
BY MR. KAUTH:
Q And the part you read, beginning at line 1, though,

said you're sending all these signals for an intended vehicle device, correct?
A Yes. Because in the discovery process, you are going to install the system and you're going to power up the system and you're going to go through a sequence of sending out codes for an intended device, and it's only if you get a response that you know that that intended device with that code is operative as a working code. And if the code that you send out is not a working code, then that intended device is not going to respond.
Q So let's look at the part you mentioned. I believe it was beginning at line 11 there in column 8.
A Yes. That's where it begins the discussion specifically addressing Figure 3.
Q And could you read me that first sentence beginning at line 11, please?
A Sure. "Referring now more specifically to the diagram of Figure 3, the operation of the multi-vehicle compatible controller 25' is further described."
Q And if you could read the next one as well, please.
A "The controller 25' may operate by arranging in the command signals memory 40a a common table 50 as shown."
Q And is that the common table that is shown in Figure 3?
A Yes.

Q And then, if you could read the next sentence, we'll see what happens next.
A "The CPU 36 upon determining that an action needs to be performed, such as unlocking the driver's door, for example, would identify the appropriate column from the table 50 from among the columns labeled 'vehicle device A' to 'vehicle device Z'."
Q So you pick the vehicle device which in this case I believe it said was door locks, and then you send multiple codes until you get a response that the door lock's activated? Is that correct?
A Well, you do that during the discovery process. Once you do discover it, then if there's an action that needs to be performed, such as unlocking the door, then you will send the appropriate code, assuming that you already know what the vehicle is.
Q The parts you just read, I think, starting at line 11 though, didn't talk about a bus discovery process. They talked about sending codes for unlocking the doors, didn't they?
A Well, that is what is discussed there. But if you read in the context of the paragraph, line 24 says, "Of course, only one of the codes would be a working code, and the other codes would cause no vehicle function to be performed." So, I mean, you have a

two-step process. One is to discover what the bus is and the device and if you can send the appropriate codes. And that process, you don't have any operator understanding of what it is. Once you do know, then, certainly you can pick from that common table the appropriate codes to then act upon the particular instruction that's required.
Q So in your understanding you would determine the bus first, and then knowing the bus you're on you would always send the appropriate code for the vehicle device; is that fair?
A I hope so. I mean that's the intended purpose is to discover what the bus and devices are so you can then align the controller to communicate with the devices on that bus with the appropriate code.
Q And in your understanding of the patent, then, would you ever, on a bus, send codes compatible with that bus that were working and non-working? Let me simplify that. Would you ever have a command signal that was bus compatible, but not a working command signal?
A Well, if you -- compatible might be the right word, because you don't want to have collisions on the bus. And the discovery process is one in which you don't know so, therefore, there will be working and non-working codes essentially sent until you determine what that bus

architecture and the device on the bus is.

Once you have the appropriate response, then you can configure or provision the system in order to operate and at that point, one would hope, would send working codes only. If one did send a non-working code, it certainly would get no response.

Now, the patent doesn't go -- the claimed invention doesn't talk to that. If you want to add some other non-working codes after you've done the discovery, if nothing's preempting one to do that, it's just a waste of time.

Q But when we look at the paragraph there, beginning at line 11, the example they give is door locks, correct?

A That is the example they give, right.

Q And so looking at that example and using door locks, would you ever send a working and a non-working door lock command signal?

A Yes.

Q Even if you knew what bus you were on?

A If you knew what bus it's on then it would be more prudent to send only working codes at that point forward.

Q But the example here where it relates back to Table 3 and looking at Vehicle Device A, B, or C, and Code 1 through N, that's actually for sending working and

non-working command signals on the bus, correct, for the unlocking doors, for example?

A I believe you're getting the facts a little bit stretched. Figure 3 shows that you have different types of vehicles. And even within a vehicle, one, you have different devices, like Device A, B, up to Z. So each vehicle may have different devices. Each vehicle would have -- for instance, vehicle 1 would have a particular type of bus structure and would have different devices on that bus structure. So the chart is basically giving you a matrix of the possible codes that could be used for different vehicle instantiation, so you've got a common table from which you can draw signals.

Now, during the discovery process, you would send out, for instance, Code 1A, associated with Vehicle 1, assuming that -- making a presumption that that is the particular structure. And if you get a response during the sequence that confirms it, then you know what the vehicle is. You know what the bus is. Therefore, you have codes that are associated with that. But until you know that, you will be sending out some codes from the table that will be working, some of which are non-working.

Q And in the example in the patent that I think we started with this morning, the two different codes for

a '95 Jeep Cherokee and a 2000 Jeep Cherokee, those could be both on the same bus; one would be a working code and one would be a non-working code if you were in a 2000 Jeep Cherokee, correct?

A If I understood your question correctly, you indicated that you had two different vehicles, two different styles, two different models. They certainly are not going to have the same bus. It's a different bus. It may be the same bus type, but it's a different bus.

And if it's in a particular model vehicle, it's going to have one type of unlock door code. And if it's in a different vehicle that has a different unlock or lock code, then it's going to use that. So, you know, that's part of the discovery process is to determine what is there and what is on the bus.

Q Now, we've gone through a lot of examples. The patent seems to like the door lock example a lot. Other than what we've read here in column 8, is there anything in the patent that you found that talks about discovering different bus types?

A It's hard to parse any one portion when the entire direction of the patent is directed to the fact that you have different architectures and different device types on buses, and it's intended to, rather than having the

previous process where you had a controller that was dedicated to a particular type of operator understood bus concept, this is a multi-vehicle compatible controller that's able to make that discovery and, therefore, you have one type of unit, one design, one product that is sold that can be installed and utilized across a number of different platforms. That's what the entire patent is directed to.

Q And let's stick with the example the patent itself gives. If I had a device that would work in both a '95 Jeep Grand Cherokee and a 2000 Jeep Grand Cherokee, would that be a multi-vehicle compatible device?

A Well, the multi-vehicle compatible device is defined by the claims. You would look at each claim and identify what that invention is. And then, if that particular claimed invention, if the elements of that claim that's required for that multi-vehicle compatible device are present, then it is such a device regardless of which Jeep Cherokee it is located in.

Q So I'm not sure -- was that a yes or a no?

A I believe I qualified and answered your question.

Q A qualified yes?

A Well, the determination is not where it is located. Determination is what it is based upon the claimed invention. If it is a multi-vehicle compatible

controller, by claimed definition, then it is, no matter which vehicle it's put in.
Q So let's use the multi-vehicle compatible controller out of Claim 1.
A Okay.
Q And if that controller would operate in both the 1995 Jeep Cherokee listed in the patent and the 2000 Jeep Cherokee listed in the patent, would that be a multi-vehicle compatible controller?
A By definition, if it meets the elements of the claim, it therefore is a multi-vehicle compatible controller, then it is one, regardless of which vehicle it's in.
Q And so, to make that multi-vehicle compatible controller work in both the '95 Jeep Cherokee and the 2000 Jeep Cherokee, I would need to have the device codes for both those vehicles, correct? I'm sorry, the command signals for both those vehicles?
A If it was to work in both of those, the answer is yes. But if the multi-vehicle compatible controller is one in which it is able to discover and, according to the claim element, by sending working and non-working codes. And if it happens to not have the code for a particular vehicle that is put in working with that device, it doesn't change the fact that it's a

multi-vehicle compatible controller. It just happens to be deficient. It wasn't designed to have all the codes from all the vehicles.
Q We didn't get back to my question before on is there anything else in the patent that shows the selection from different buses. There's a lot of examples of different device codes. I think there's door lock. There's alarm settings. There's remote starting the engine. That table in Figure 3 shows Vehicle Device A, Vehicle Device B, Vehicle Device C. There's nothing that has bus A, bus B, bus C, is there?
A Well, each vehicle that the product is installed in is going to be a bus. And so by definition, you have different vehicles with different buses. The purpose of the invention is being able to take a particular structured apparatus and you can install the product and be able to discover what that bus architecture is, discover what's a working code with a device and what is not. So you've answered your own question. The whole spec does describe that and gives several examples for how that's performed.
Q If we could go back to Table 3. So those columns, device code A, device code B -- I'm sorry -- Vehicle Device A, Vehicle Device B, Vehicle Device Z across the top, those would all be in the same vehicle, correct?

A In the table -- I may not understand your question fully. In this Table 3, you have command signal tables for different devices. So a command for Device A, let's call it a door lock/unlock, that particular device may have different codes depending upon the vehicle. So there is a multi-dimensional matrix here of different codes for a similar kind of device located in different vehicles.
And so this is a map that is available as a common table from which codes can be drawn and sent out over the bus to determine whether or not there is or is not a match. And if there is an understanding of what the device is and what the code is, the vehicle is, then clearly you have the makeup of being able to know, once you have defined the vehicle, to be able to identify the exact codes that would work for the particular vehicle devices.
Q And as we go across the columns to the right, you mentioned, I think in your example, Vehicle Device A would be the door locks. Vehicle Device B would be another vehicle device in the same vehicle as those door locks of Vehicle Device A, correct?
A Well, Vehicle Device B is shown in this two-dimensional table as a type of device that's located potentially within a vehicle. It may be the type of

device that's in a different vehicle up to -- in vehicles. And so it is a type of device, but the code in which it operates could be different but between different vehicles.
Q My question is as we go across the table, let's pick that first line, Vehicle 1, Code 1A, Code 1B, Code 1Z, those are all command signals for the same vehicle, correct?
A That is correct.
Q Let's go back to --
A And let me qualify.
Q Go ahead.
A Those are all codes for the same vehicle. Now when they are sent, they can be command signals when they are propagated or generated to the bus.
Q And when you say codes, can you explain that a little more for me, how the codes get to be command signals?
A Yes. A code is representative of the type of binary information that when communicated to a device the device understands that to perform some kind of a function. It could be a response function. It could be an action function, different functions. The codes are, therefore, stored in a table.
The codes are then -- let's say the vehicle has

already been discovered. You already know the bus. You already know the devices on the bus. Then, if the need is to activate a certain device or to get a response from a certain device, then you know the exact code from the table that would work with that, so you access the memory that stores the information in the table. You locate the particular code that's associated with that. You retrieve the code from memory, which is called a read operation. The CPU that is within the controller then takes that information, identifies what the instruction was in terms of what to do with it. And then it generates that by providing it to the bus, generates the bus with that code.

And when you do that, you package it. You package the code within the construct of what the communication protocol is for that bus. In essence, you are encoding the data into or the code into that protocol. That is a signal. The command signal is kind of the envelope of what is propagated including the code that's a part of it.

Q Okay. So if I simplify it, they are codes while they're sitting in the table, but when you kind of wrap them up in the proper format and generate them on to the bus, that's when they become your command signals?

A I believe that's correct, yes.

Q And is your understanding of this table that it's sort of an iterative process, meaning that if I were in Vehicle N and I wanted to unlock the door, and we're going to call that Vehicle Device A, I would send Code 1A, Code 2A until I got to the operating code; is that correct?

A No. The command table is a database. It's a table. It has values in it. Now if you are in the discovery process, you don't know which vehicle you are in. You don't know what the bus is. You don't know what the devices are. Then, yes, you would send out a sequence of codes, some of which would work. At least one of which would work. The others would not. And that is your discovery process.

Now once you have identified what the discovery bus architecture is, you know the devices that are on that bus then. Then you basically can now, from that point forward, just select the codes that are associated with that vehicle.

Q And when we read that portion, the first three lines in column 8, it said, "The multi-vehicle compatible controller 25' may sequentially generate the different command signals (working and non-working) for an intended vehicle device." So in your opinion, what's that intended vehicle device? It's not the door locks the

patent keeps talking about?

A Well, that is a type of vehicle device. There are many types. And that could be one; could be another. So you send out a code -- you certainly, from a code table, know which code is associated with a type of device. So if you are sending out a code associated with a type of device, that is your intended device, then you will determine whether or not that code works or doesn't work, and that's going to be based upon whether it has correctly aligned with the right vehicle.

Q And turning back to column 8 here, line 30, that first highlighted line, "The actual coded signals would be compatible with the particular data communications bus as will be appreciated by those skilled in the art." Is that reference to actual coded signals? Is that referring to command signals?

A Well, when the code is included in a signal, the coded signal, when it is generated that would be a command signal.

Q So a command signal would be compatible with the bus it's sent on, correct?

A Well, a command signal would be compatible with the bus that it's sent on if it already knows the bus. Again, if it's in the discovery process, you don't know. The command signal may or may not. It's going to have

working codes and non-working codes. But if once you have identified it, you discovered it, then the command signals that are sent out should follow the prescription as outlined by the code table to utilize the appropriate codes. And I can't guarantee that all systems are a hundred percent efficient. They may still send out codes that don't work. But, you know, that's up to the designer of the system. It's certainly not an efficient way to do it.

Q So in our '95 and 2000 Jeep Cherokee, that might not be efficient, but it would send a working command signal and a non-working command signal, and they would both be bus compatible coded signals, correct?

A Well, again, are you talking about prior to discovery or after discovery?

Q I'm just using the example in the patent where they say you're sending out multiple codes for an intended vehicle device and they give you the example of two door lock codes, so the patent doesn't specify in here that there's any bus discovery?

A It starts at column 8, line 1, "The multi-vehicle compatible controller 25' may sequentially generate different command signals (working and non-working) for an intended device." So you can have a bus architecture that does that, it sends out command signals, some of

which work, some of which do not. That is a -- you know, during the discovery process that's exactly what the claimed invention is directed to.

Now, once you have discovery, then an efficient system is going to then align the codes to make sure that what it sends out are correct. But again, I can't get into the heads of all designers. They may still not have made their design as efficient as it should be, and they're just wasting their time and wasting bus time, but that's beyond the claim.

Q So the claim wouldn't cover sort of the brute force method of Table 3 where you send out multiple codes to unlock the doors until one works?

A Well, understand this is an apparatus claim. You keep going back to it wouldn't do it this way. It's a method -- it's not a method claim. It's an apparatus claim. It has a transmitter. It has a receiver. It has a multi-vehicle compatible controller at the vehicle. It cooperates with a transmitter and receiver, which we talked about yesterday, and it generates command signals. And they have to -- at least the one set of command signals has to include working and non-working. That's the claim.

Q And the system shown in Table 3, that wouldn't fall within that claim? You couldn't have hardware that

operated in that way?

A You say the system in Figure 3. Figure 3 is a table, it's not a system. Figure 3 is a table of codes.

Q And the system that's described in the patent that refers back to Table 3, I guess mainly starting in column 8 there that says, well, pick an intended vehicle device and send signals and there'll be non-working signals and one will actually work, would that be covered by -- could that be hardware that's covered by Claim 1?

A It could be.

Q In your analysis of the CalAmp devices, was there only one working command signal?

A "...was there only one working command signal?" In the CalAmp devices, the ones that I evaluated, like the 3000, there is a specific parameter identification that is sent during the discovery process. And at least one of those would work and others would not work. It depends on the particular bus architecture of the particular vehicle being discovered.

Q So most likely one working signal and multiple non-working command signals?

A It's likely, yes.

Q And the working command signal, I assume, would be bus compatible?

A Yes.

Q And the non-working command signals would not be bus compatible; is that correct?

A Well, it depends. In some models, it may be. It depends on the signals sent. But the one sent out to discover is one that would fit within what you just said. If it works, then it's a proper discovery. If it doesn't, it doesn't.

Q So let's -- we're going to jump back to Plaintiff's 104, back to page A-5 of your chart with the list of signals so we can be a little more specific here.

Just below the picture there it says, "On initial installation, the multi-vehicle compatible controller generates a sequence of working and non-working command signals to determine command compatibility of different vehicles...," and it goes on to list the series of messages, I believe they're called.

Can you step me through, in your opinion, which ones of those are working and non-working command signals that satisfy the claim limitation?

A Well, each one of them may be a working and each one of them may be a non-working. It depends on the architecture. For instance, if the discovery is that it is a CAN 11 bus, then the 7DF message that's sent out would be sent out as a -- and that would be included -- that would be defined as a working command signal.

And the others would then be non-working, because they do not align with the particular architecture. In a different system, for instance, if it was a J1850 PWM message that was sent out, then if the architecture was a J1850 PWM, then that would be the working code and the CAN 11 bit 7DF would not be.

Q And in your last example, then, the non-working command signals, would those be compatible with that particular vehicle data bus in which it's installed?

A You have codes that would be compatible with a bus and codes that are not compatible with a bus. That's their discovery process. You're sending out working and non-working codes. You're sending out codes at least one of which would work and others would not work. That's the discovery process.

Q And you identified, I believe, the J1850 code in your example would be the working command signal non-working example, correct?

A In the example where the device was associated with it, it was a J1850, yes.

Q And in that example the remainder of the codes that I believe you told me would be the non-working command signals, would those be compatible with the bus as that phrase is used in the patent?

A Would they be compatible with the bus? I would

anticipate not.
Q Do you have any concern that the patent says the actual coded signals would be compatible with the particular data communications bus as will be appreciated by those skilled in the art if the non-working command signals are not compatible?
A Well, again, you're -- excuse me -- didn't mean to overstep you.
Q Go ahead.
A You're conflating things. We're talking about a discovery process. And once discovered, you're talking about a system that now the controller knows what the bus is so that it's going to send out working only at that point which, if it's efficient, that's what it should do. So there is a point in time where all the codes that are sent out would be compatible. And in an efficiently designed system, once the bus is discovered and you understand what the devices are, then you're going to send out compatible codes. But in the discovery process, you don't know what the bus is. You don't know what the devices are and you're sending out codes, some of which work, called working codes, some of which don't, called non-working codes. And in those cases, they may not be compatible with the bus during the discovery process.

Q So this sentence in the patent about coded signals being compatible only applies at certain times?
A Well, clearly. It applies if you're sending out the codes that are associated with that bus and device, they're compatible. In the discovery process, they may or may not depending upon whether or not you're sending out codes that are consistent with the devices that are associated with that particular type of bus.
Q Now, I believe you mentioned that in an inefficient system, you might already know the bus type and send out working and non-working command signals and you said you couldn't get in the head of those designers to make it more efficient. Is that accurate?
A That's true. I mean if they want to practice the invention and yet go beyond that and do something that I consider not practical, that's their privilege to do so.
Q And the patent, in fact, gives a few examples of that inefficient type approach, doesn't it?
A There are inefficiencies. It's understood that there are, yes.
Q And in those type of systems where you know what bus you're on and you're sending these working and non-working command signals, both the working and the non-working command signal are compatible with the bus

in that instance, correct?
A You may have instances in which codes are compatible with a bus, but they do not have a particular device type that corresponds with that. So you may have code that's compatible to the bus, but there's no device in which it can talk to, so I can certainly see that as a possibility.
Q So they both -- our Jeep Cherokee example, they'd both be bus compatible, but only one of those codes would work if I own a 2000 Jeep Cherokee?
A I can see that as an option that could happen, yes.
Q Let's move forward in your report to your discussion of Claim 12. It's on page A-7 of Exhibit A to Plaintiff's 104. And if you could look at about the third line of the claim, there's a further description of the controller, "...multi-vehicle compatible controller is further for storing a set of device codes for a given vehicle device for a plurality of different vehicles." In your infringement analysis, what meaning did you give to that phrase?
A The multi-vehicle compatible controller is the one that is defined as required by Claim 1. And there's a further limitation now that was not required by Claim 1, and that is for storing a set of device codes for a given vehicle device for a plurality of different

vehicles.
So that, I mean, I think it's self-explanatory. You've got, for instance, a table or database. You've got a set of codes that are stored. And these device codes correspond to a particular type of device that's on a bus. And that particular bus -- that particular device on that bus in one vehicle may be a same type of device on a different vehicle with a different architecture. So you have device codes associated with a device dependent upon which vehicle it is residing.
Q When we go to the right column of your chart, it talks about the LMU storing messages for different buses, reads the message, and then it says it "...matches the read messages to the stored message to provide compatibility with different vehicles." When you've got the stored message in that line, what were you referring to?
A Well, this would be the code that's associated with a particular vehicle device. And when you get a response back through the accumulator, you get a response back and you can determine whether or not you did, in fact, get a response or not. And if you did, then you know that the code that you sent out that was assembled and sent out as a part of the command signal, that did in fact get a response, so then you have

compatibility.
Q So I believe in your example the vehicle device is the ECU or ECM, correct?
A Correct.
Q And specifically, what is my stored message? You've got a list of messages include the CAN 11 bit and it goes through all those, but it says that you're matching the read message to the stored message, so I just want to know specifically what is that? Can you identify the stored message that you determined to exist?
A Well, when you are sending out a -- when you're through the interface, through the BOD [sic] card, you're sending out the code. You're generating the command signal to the bus for a particular device type that's going to be consistent with the discovery process for the CAN 11 or the other buses, so there's a specific message that's sent out. And it's retained there, 'cause you know what you've sent out. Now what you're trying to do is look at the response that comes back to determine whether it corresponds to a particular message that's sent out, and that is basically defined by the discovery process.
Q So the stored message would be the six messages identified in the box on the right?

A Yes. They can be that.
Q Now, I noticed on the box on the right, you have matching read messages to stored messages. And is a message -- when you're using message in that box, is that the SAE understanding of message, that it can be a request or a response, a command or a query? Can you specify what you mean by message there?
A Well, the message includes the content of the code that has been transmitted as a part of the command signal that goes out over the bus to attempt to identify whether or not a device will respond to it or not.
Q So message is command signal there or the part of the command signal?
A It's part of it, yes.
Q When I looked on the left of the claim, though, they don't use the term message. They use the term device code, don't they?
A Yes. The device code is included in the message.
Q And the Court's given a definition of device code, correct?
A Yes.
Q Is that a signal from a vehicle device?
A Device codes is identified as signal from a vehicle device.
Q So you're saying the device code here is part of the

query message or the bus discovery process; is that accurate?
A The device code is -- the device code is defined by the Court as a signal from a vehicle device, and so yes.
Q And what vehicle device is that device code from? The parts of the messages that you identified in there?
A Well, these device codes that are stored are the ones that -- where it says in the claim, Claim 12, the "...multi-vehicle compatible controller is further for storing a set of device codes for a given vehicle." So this is the table of all of the different device codes that are associated with a particular type of vehicle device associated with different vehicles.
Q And --
A And then -- and then the part that you haven't highlighted, it says in Claim 12 is "...for reading a device code which is a signal from a device from the data communications bus," and so that device code that is being read is the device code that is a signal from the vehicle device.
Q So is the set of device codes for a given vehicle device for a -- having trouble with that -- a plurality of different vehicles not a signal from the vehicle device?
A Say that again.

Q Gladly.
A I just want to hear you say "plurality" again.
Q So I think you just testified that reading a device code from the data communications bus, that would be the signal that comes back in response from the query message, correct?
A Correct.
Q And so, I'm asking is the set of device codes for a given vehicle device for a plurality of different vehicles that's referenced earlier also a signal from a vehicle device?
A These device codes -- this is a set of device codes. So these would be the codes that would be corresponding to that which it would expect from that would be -- would generate a response from the particular vehicle device which then would send a code which is a signal from the vehicle device back, so there would be a correspondence to it.
Q Notwithstanding the correspondence, doesn't the definition we're using in this case require that the device code be a signal from the vehicle device?
A That is a correct statement. And if you really want to put this into the context of the application as entered into, this multi-vehicle compatible controller, such as the LMU-3000 that is connected to the bus

through the connector, that is also a vehicle device. It happens to fall within the context of a vehicle device because that is a device that communicates across the bus and creates master and slave context. So it is a device code from a given device.

But in the context of the claim, you have a table, you have a database, you have a construct of different codes associated with different devices, and you also have the ability to send those codes from that device to the bus, generating the bus, and then you get response codes from a particular device, in fact, if it does respond. And so, then, that would be a code also from a signal from a device, from a vehicle device.

Q Do you recall in your deposition you told me that the controller, the LMU controller, could be a device code, but for purposes of this claim it was not the device code you're relying on? I'm sorry, vehicle device.

A Yeah. Let's say that again, please.

Q Yes, please. I believe in your deposition you told me that while the LMU could be considered to be a vehicle device, for purposes of the claim it was not the vehicle device that you were identifying; is that correct?

A That is correct. It's consistent with what I just said.

Q So I'm still not sure, though, if we've established that this set of device codes for a given vehicle device for a plurality of different vehicles are actually signals from a vehicle device.

A Well, these particular device codes that are part of the table, part of the stored matrix, are not codes that have as yet been received from a vehicle device. These are codes that are associated with the vehicle device that would command a response, and then the response is reading a device code from the data communication bus, and that is from the given vehicle device.

Q So we'd sort of suspend the definition for the first clause there, because the second reading one is actually the signal from the device code -- I'm sorry -- the vehicle device?

A Well, in this particular claim, the device code that's coming from the vehicle device certainly is a signal from that device. The ones that are stored are device codes that correspond to those, may or may not correspond, depending upon whether it's a working or non-working, but it does correspond to that.

Q Maybe if we go to the specifics, I'll understand better. So I believe you told me the message as listed at the bottom of the box on the right side there, the CAN 11 bit 7DF message and the rest of those, that

portions of those are what comprise the set of device codes for a given vehicle device for a plurality of different vehicles; is that correct?

A That's correct. And the context is not device codes, but a set of device codes.

Q So it's the set of those six that you have listed there?

A In this instance, yes.

Q And specifically, what portion -- let's just pick the CAN 11 bit 7DF message. What portion of that message makes up part of the set of device codes?

A Well, these include the 7DF, that hexadecimal 7DF.

Q And was that an address value? Tell me what the 7DF is.

A Well, it's a data -- it's a data value.

Q Is it a hexadecimal number?

A Yes. As I mentioned yesterday, in decimal it would be 713 F -- 71315.

Q And what does that correspond to?

A I believe yesterday we discussed that. That happens to be, according to the protocol for the CAN 11 bit, that is the information that is to be sent out during the discovery process.

Q And then, when we step to the reading a device code from the data communications bus, let's assume we got a

response on CAN 11 bit, what would be the content of that read device code from the data communications bus?

A I don't have in front of me what that is, so I can't be specific. It would be a code that shows a response from that particular device which indicates that there is a match: that, in fact, that the code that was sent out is able to communicate with that particular device. Therefore, when you get the device code back as a response, then you know you have a match.

Q And in that last part of the clause -- I'm sorry -- the element, "...and for determining a match between a read device code and the stored device codes to thereby provide reading compatibility with a plurality of different vehicles."

A Yes.

Q Is that what you said, if you get a response back then you've determined there's a match?

A Yes. Because in the architecture of these systems, if you do not get a response back, then it means that the content of the message that you're sending out is not understood by any of the devices on the bus. And so, you will not get any response. If you do get a response back, then it means at least that one device has understood the message and is able to acknowledge the receipt of that message.

Q And does the controller actually determine the match?
A The multi-vehicle compatible controller?
Q Correct.
A Yes.
Q And how does it determine that?
A It gets a response back. If it has a value that has been stored on the read information, it detects whether or not there is a change of state, change of value that's in that stored location. If there has been no change, then it knows it got no response. If there is a change, in other words, it has content, then it knows it has a response.
Q So if a match is any response, doesn't that sort of eliminate that last clause?
A What do you mean, if a match is any response?
Q Well, if any response that you get back constitutes a match, in your opinion, haven't we eliminated the function of having to determine a match?
A No. The determination is done by the controller. It evaluates. It looks at the different storage locations to determine whether or not there has been a return value or not. And based upon whether there is or is not, you have a determination. The determination is that you did have a match. You got a response.

Q So in your opinion, if you get anything back, there's a match. If you get nothing back, there's no match?
A Well, you have to understand -- yes. The architecture of these systems, each device has a specific code that only it understands. And so none of the other devices on that bus are going to comprehend that code. If there is a device that comprehends it, then you have a match.
Q All right. Let's move down a little bit more. We're going to go to Claim 14. And on the right-hand side, you have got a diagram that has got a couple different CalAmp items. Can you tell me what that diagram is depicting once you get there? And this is -- I'm sorry -- page A-9 of Plaintiff's Exhibit 104.
A Claim 14 is also dependent from Claim 1, so this adds the additional limitation that the transmitter comprises at least a central station transmitter and wherein the receiver is at the vehicle.
What I'm showing in the diagram is a system that includes the CalAmp LMU on the bottom right corner of the diagram that has the capability through its wireless module to communicate wirelessly through a cell tower back to a particular terminal server, which is a CalAmp server. And so under this condition, the system

cooperates in a way that the CalAmp LMU can transmit information to the server, and the server can transmit information to the CalAmp device itself, the CalAmp LMU.
And in this particular instance, Claim 14 says the central station has a transmitter. Well, clearly it's wirelessly connectible to the LMU. So it does -- it is capable of transmitting and does transmit to the LMU. This is done specifically in the -- it can be done, for instance, in the provisioning part, and the receiver is at the vehicle.
Well, if the server and the LMU are together working as a system, then when a transmission is made from the server, then the CalAmp receiver is going to be the particular element that receives it, so -- and I have pointed to the fact that the LMU does, in fact, have a transceiver.
Q And in this diagram, which part is the central station transmitter?
A It would be the server.
Q Which one of those? Is that the LM direct server?
A LM direct server under some conditions and the PULS in others. If you're provisioning, it would come from the PULS.
Q Let's flip a little further back in this exhibit. Let's go to page C-1. And this is --

A C-1?
Q Correct. I believe it's Exhibit C to your report, a discussion of the '885 patent?
A Okay.
Q We spoke previously about the different device codes, the plurality that I couldn't pronounce. Is your analysis for Claim 1 of the '885 patent regarding those device codes the same as it was for those device codes in Claim 12 of the '876 patent?
A Yes.
Q All right. Let's turn to the '727 patent, and that's going to be Joint Exhibit 4, I believe.
All right. And in Joint Exhibit 4 -- I'm sorry -- in the '727 patent, it's your opinion that the speed exceeded notification device is the LMU-3000 or 3030, correct?
A Yes.
Q And when we look at -- if you want to turn to Claim 1 -- zoom that in a little bit -- there's an element, "...at least one vehicle device generating data related to vehicle speed on the vehicle data communications bus." Now in your analysis, what part of the LMU satisfied that requirement?
A Well, the engine control module will be a device on the bus that would generate that back to the bus.

It would then be received by the device.
Q And if we go down a couple lines, there is, "...a controller to be coupled to the vehicle data communications bus." And I believe you said that that was a combination of several elements within the LMU; is that correct?
A That's correct.
Q And does that controller perform one or more control functions?
A Yes.
Q And what are the one or more control functions that it's performing?
A The one or more control functions, there are a number. It performs control functions with regard to sending command signals to various other devices that are on the bus, on a particular bus. They could have anything relating to the engine control module with regard to transmission of an engine. It could be generating signals for diagnosing the information. It could be information in terms of engine speed, torque, other parameters that are listed and provided by the consumer.
Q And for your analysis for this claim, did you pick any particular function you thought satisfied that limitation?

A Speed.
Q So that's speed from the vehicle data bus?
A Yes.
Q And I believe you said that Mr. Eiberger and Mr. Hergesheimer had testified regarding obtaining speed from the vehicle bus; is that correct?
A Yes, they did.
Q And what was your understanding of how that speed was obtained from the vehicle bus in the CalAmp devices?
A It was read from the bus.
Q And was that using the speed above threshold function that's provided by CalAmp?
A I'm not sure what you mean.
Q When you say the speed was read from the bus -- well, let me back up. Are you familiar with the speed above threshold and speed below threshold functions in the CalAmp devices?
A Yes, I am.
Q And do you know what type of speed those functions utilize?
A They use the speed of the vehicle.
Q And do you know where they obtained that speed of the vehicle?
A It depends on the script.
Q So your understanding is that you can script the

speed above function -- I'm sorry -- speed above threshold function to obtain speed from different places?
A You're asking two questions in one. Let me try to parse it. There's a difference between obtaining speed and a speed threshold function. It can receive speed from several different places. It can receive a speed reading through the GPS system. It can also receive a speed reading via the bus. The claim requires receiving or reading the data related to vehicle speed from the vehicle data communication bus and the controller is able to do that and does do that.
Q And in your analysis of this claim, you told me that -- well, let's go back to the threshold here.
A Okay.
Q If we go to the last clause it says, determining when a vehicle speed exceeds a speed threshold for a first time period and based thereon cooperating with said wireless communication device to send a remote vehicle speed exceeded notification.
So let's start with that first part, determining when a vehicle speed exceeds a speed threshold for a first time period. In your analysis of this claim, were you relying on the speed above threshold provided in the CalAmp LMUs?
A Yes.

Q Do you recall that both Mr. Eiberger and -- well, let's start with Mr. Eiberger. Do you recall that Mr. Eiberger testified that the speed above threshold obtained speed data from the GPS?
A Yes, I do.
Q And so how is that speed data from the GPS data related to speed from the vehicle data communications bus?
A Well, there's two aspects. One is that there was testimony -- I think Eiberger had confirmed that a certain percentage of the scripts that they wrote actually did retrieve speed from a bus, so that's number one. So hands down, there are certain devices that actually do use the speed from the bus. Number two, let's take the example where the speed factor that is used in the determination is from the GPS module and not read from the bus. That is a probable fact of the way some of these systems are arranged.
So if we look at reading the claim, it says, "...reading the data related to vehicle speed from the bus..." Does the controller do that? The answer is yes, it does read speed related from the bus.
"...determining when a vehicle speed exceeds a...," not "the" speed threshold, but "a" speed threshold, and it's "a" vehicle speed. So there is no

antecedent to that that requires it to be the speed that is read from the bus. There are two separate operations that this controller -- it's not coupled to the data communication. It's a controller to be coupled 'cause that's what it can do.

And when the controller to be coupled, some of the operations that it can perform are for reading the data from the bus related to the speed, which it does, it can also be for determining when a vehicle speed exceeds a speed threshold, but it doesn't require, based upon the way the claim is constructed, that the vehicle speed is the one that has to be the one read from a bus.

Q So obtaining -- in your opinion, obtaining speed from the GPS would satisfy this claim limitation, assuming all the other --

A Well, all limitations of the claim have to be met. And if the product, which it does read data related to vehicle speed from the vehicle data communications bus, when a controller to be coupled for reading, does it do that? Can it do that? Yes it can.

Does it also have the function that's substantiated in the way in which it operates for determining when a vehicle speed exceeds a speed threshold for a first time period and based upon that cooperating with the wireless system? Yes, it does do that, too.

Q And is your understanding in the LMU devices that the GPS speed is not obtained from the bus?

A My understanding is the GPS speed is not obtained from the bus.

Q It comes from the OBD side -- I'm sorry -- the LMU side of the board?

A It comes from the GPS board to the LMU board.

Q And that's in the LMU layer and not in the OBD layer?

A It's not in the OBD layer. It is a part of the GPS layer that's then connected to the LMU board. If you want to call that part of the LMU layer itself as opposed to OBD, yes.

Q Because there's really just -- CalAmp just describes this as having two layers, doesn't it, the OBD layer and the LMU layer?

A They do. They do describe that in some of the information. And they basically take the two boards, the LMU and the GPS board, and put them together, in quotes, the LMU layer.

Q And so you understand that the function that CalAmp provides for obtaining speed and setting a threshold, the speed above threshold function, that that doesn't obtain speed from the bus, correct?

A If it uses the speed from the GPS for it, the answer

is it does not receive that speed that is used in the determination from the bus. If the script is written as Mr. Eiberger had stated some are where speed is obtained from the bus, then that's a different story. But in each case regardless, the controller to be coupled for reading the data related to vehicle speed from the data communication bus, it does perform that. And it also has a determining operation in which a vehicle speed is matched or determined whether it exceeds a speed threshold.

Q So I believe Mr. Eiberger testified about he gathered scripts, five percent of the users he thought it was, and that they used speed from the vehicle data bus for something, but he said he would have to eyeball the scripts to determine if they were actually using it for thresholds: is that correct?

A You've paraphrased that correctly.

Q And just to make -- let me make sure I understand your opinion. You're saying that even if the threshold function in an LMU is obtaining speed from the GPS, the fact that it might obtain speed from the vehicle bus not associated with that threshold, it would still infringe Claim 1?

A My opinion based on the reading of Claim 1, the answer is yes. The determining step does not relate to

where the vehicle speed factor is obtained from. If there are two operations that the controller is capable of performing, one of which is reading data related to speed from the bus and another operation is determining whether or not a speed exceeds a threshold.

Q Let's see if we can parse that out a little bit. When we go up to the clause, "...reading the data related to vehicle speed," what's your understanding of vehicle speed there? Is that just a sort of generic reference to speed or is it current speed or are there any limitations on that?

A Well, it's not reading speed. It's reading data related to speed. The system depends on a particular implementation. Some actually read the RPMs from a transmission and then they have to do the gear-up ratio factors and loss factors in order to get a set of information that's related to the vehicle speed, and that is the information that's then propagated across the bus, and so that would be data related to the speed. You read that data that's related to the speed.

Q And when we step down to the next one, "...determining when a vehicle speed," that's, in your opinion, speed from the bus GPS anywhere speed might be obtained?

A Based on the way this is constructed in the claim,

I don't think it -- it does not limit it to being, for instance, the speed that is read from the bus. It's just determining when a speed, a vehicle speed, exceeds a speed threshold.
Q Are you aware of the Omega device, the GPS 2000?
A I know of it, yes.
Q And were you here for the testimony about it earlier this week?
A Yes.
Q Do you recall testimony that the GPS 2000 could do speed thresholds?
A Yes.
Q And that that was obtaining speed from the GPS unit in that device, I believe; is that correct?
A In the 2000, if it is not associated with the VPOD, then it only can get it from the GPS.
Q I'm sorry. I think we might be talking about different things. I'm talking about the Omega product, the GPS 2000.
A Okay, excuse me.
Q Do you recall that product?
A Yes.
Q And could it obtain speed from the GPS unit in it?
A I believe it could, yes.
Q And could you set up a speed threshold in that unit?

A You could.
Q And could it determine when a vehicle speed exceeds a speed threshold for a first time period?
A As I recall, yes.
Q And you know that that unit was on sale, I believe, as early as 2001, correct?
A I believe that it was, yes.
Q And is that more than six years before the '727 patent?
A That portion of it, yes.
Q And do you think that would anticipate this patent, if there was a publicly available device that could read speed off the GPS?
A One would have to look at the entirety of the claim to determine that, and I don't believe the entirety of the claim was met at that early a date.
Q Because the GPS 2000 didn't have the bus connection?
A It did not, as I recall. But again, do you have some documents to put in front of me, because it's -- you're taxing my memory on all of those factors.
Q This is just based on the testimony this week. I don't have any documents.
A Yeah. I mean, I think what you represent so far is correct.
Q If we step down to Claim 2 in column 7 here on the

'727 patent it says, a speed exceeded notification, according to Claim 1, wherein said controller is also for determining when the vehicle speed exceeds the speed threshold. So you mentioned antecedent basis before, I believe. Can you explain a little bit about what antecedent basis is in a patent claim?
A Antecedent basis in a patent claim means that when a particular claim term or phrase is used that if it has been used before and you want to refer to that specific reference where it was first introduced, then as I understand in the claim language, rather than using the word the Article A, you will use the words "the" or "said". And if you use "the" or "said", then it refers back to the prior instantiation or representation of that particular term.
Q Thank you for that explanation. If we go to Claim 2, I believe it's the third line where it says, the vehicle speed. Do you know where the antecedent basis is for the vehicle speed in Claim 2?
MR. SANTURRI: Your Honor, I'm going to go ahead and object to this. We're talking about antecedent basis for claims that aren't asserted in the case. I'm not really sure how this has anything to do with --
THE COURT: All right. Can you help us with

the relevance of this? If it's not an asserted claim, what's the point?
MR. KAUTH: It's the point to determine whether the claim before those are actually two different speed references or, in fact, they're all referring to the same speed that must be obtained from the vehicle bus, Your Honor.
THE COURT: All right. I'll allow it.
A The antecedent basis for the vehicle speed, it says, the vehicle speed exceeds the speed threshold for a second time period, so it would refer to the determining step. And it would be the "a vehicle speed" that was previously looked at for exceeding a threshold for the first time, and you would be looking at that vehicle speed, whether it exceeds the vehicle speed for a second time.
BY MR. KAUTH:
Q It couldn't refer to the "a vehicle speed" in the last clause of Claim 1 where it says, determining when a vehicle speed exceeds a speed threshold?
A I believe in the context of the way the claims are written, the one that I've identified is the one that it refers to.
Q But it could refer to the other one?
A If the other one was actually -- if the other one

across the bus was used as the vehicle speed for the first time period determination, then the answer is yes, could be.

Q And if we look back in Claim 1, after you determine when a vehicle speed exceeds a speed threshold for a first time period -- well, let's stick with first time period. What's your understanding of what that means as you construed these claims?

A Well, the first time period indicates a particular segment or portion of time. It doesn't have to be any particular specific time that can be defined by the person that implements this invention to identify a first time period.

For instance, speed is generated based upon a sampling technique. You do not take the first value, because sometimes you may have an error. So what you do since it's an analog function, analog -- you will take a value and you will take a number of samples over a particular period of time, and then you will create a code based upon that to determine what the speed is during that period of time, and then that is the code that is used.

Now, in order to ensure that there is not some issues with relating to the way in which you have defined it, for instance, you may have a vehicle which

is passing another vehicle and it may be for some number of seconds has exceeded the limit, the threshold that's been set -- let's say it's 70 miles an hour -- there will be some given first time period to see does it exceed that or not so that you at least allow some flexibility for whether the person is passing or not. That could be one example.

Going downhill, especially if you're an 18-wheeler, there may be a period of time where you have exceeded a given threshold that's been defined by the software, because you have -- you haven't got it broke -- the braking is not working right.

So certainly, if it goes for a length of time that is beyond what was determined, then that would set a flag it exceeded threshold. But if the driver is able to recover and not exceed the threshold for a length of time that's defined, then it would not set a flag. So it's a first time period. That can be defined by the vehicle and by the fleet.

Q And did you use the debounce feature on the LMUs to satisfy this requirement?

A No.

Q What did you use to satisfy the first time period requirement in your analysis?

A Well, the debounce is trying to overcome an error

issue, make sure you don't have an interference. So this is a first time period is basically the threshold calculation is going to be made and a determination will be made for a period of time, a first time period. And the first time period can be anything from zero to whatever is defined by the script.

Q And did you identify any script that defined a first time period?

A All scripts are going to have a first time period. There's always going to be for a first time period.

Q And what's your basis for that assertion?

A The basis for that assertion is we live in the real world and controllers evaluate information and they evaluate it at a particular current time. It's based upon a sampling technique over a period of time, so there is necessarily a given first period of time.

Q But that's not based on any CalAmp documentation?

A That's based upon the control system theory and based upon the way the STM 32 F device works.

THE COURT: All right. Let's take a break here, gentlemen. It's now 10:35. We'll come back at 10:50. We'll be in recess until 10:50.

(Jury exits.)

The record should reflect the jury has withdrawn. We're in recess until 10:50.

(Recess from 10:35 a.m. to 10:57 a.m.)

THE COURT: All right.

Are we ready to continue?

MR. KAUTH: Yes, Your Honor.

THE COURT: Let's have the jury, please.

(Jury present.)

The record should reflect the jury has returned, the witness is in the box, and we're continuing with cross examination when you're ready.

MR. KAUTH: Thank you, Your Honor.

BY MR. KAUTH:

Q Let's pick up with the '727 patent. I believe when we left off we were talking about the last clause there, "determining when a vehicle speed exceeds a speed threshold for a first time period."

Let's move on to the next one, "...based thereon cooperating with said wireless communications device to send a remote vehicle speed exceeded notification." What did you interpret that clause to mean?

A Well, the controller to be coupled to the vehicle data communication bus and the coupler -- excuse me -- and the speed exceeded notification device says there's an operation of determining whether the speed exceeds the threshold and then it says, "...and based thereon cooperating with the wireless communication device to

send a remote vehicle speed exceeded notification."
So that would be -- in terms of an implementation would be processing a set of instructions that would transfer the information through communication with the wireless communication device so that it would send the notification.
Q In what do you assert satisfies that portion of the claim in the CalAmp devices?
A First of all, it's the LMU, the ST microcontroller portion that cooperates with, in conjunction with the wireless communication device, which is the receiver transmitter module, and it sends a remote speed-exceeded notification. And that would be attributed -- an example I think I used in my claim chart was the event reports. The event reports is what is sent. And event reports include the information, including the speed.
Q And are event reports sent periodically?
A They are sent periodically or they can be set up to be repetitive or a certain period basis. There are different ways in which they can be programmed in terms of the delivery schedule.
Q And did you interpret the language, based thereon, to require that the speed-exceeded notification be sent as a result of determining when a vehicle speed exceeds a speed threshold for a first time period?

A It says, based thereon. That would be based on the determining operation, determining whether a threshold has been exceeded, based thereon. That's what I base it on.
Q So the report has to be sent as a result of the vehicle exceeding the speed threshold; is that correct?
A It says that -- the predicate is a speed threshold has been exceeded for a first time period based on that fact. It says there's a further operation that the controller is capable of performing, and that's cooperating with a wireless communication device to send a remote vehicle speed-exceeded notification. There's not a time element in terms of exactly when it is sent, but what is sent is based upon that.
Q So I believe in your language you said it had to be based upon the fact of there was a determining when a vehicle speed exceeded a speed threshold for a first time period?
A That's correct. So one of the factors that would be included -- the event report may have other factors in it as well. In fact, some of the dependent claims add in other factors, but there at least has to be a basis so it goes back to that threshold being crossed.
Q So if the event report is just set up to be sent out every hour and doesn't check to see whether there

has been a determination that a vehicle speed exceeded a speed threshold, would that not qualify as the speed exceeded notification in this case?
A I believe that the claim language has several functions that the controller performs, operations the controller is able to perform, one of which is that it is able to read data from the bus. Another is that it can determine the vehicle speed whether or not it exceeds a threshold. And it also has the ability to operate in a way which it cooperates with a communication device to send a remote vehicle speed-exceeded notification. So I cannot say that an event report that is, let's say, scheduled to be sent every hour is not based upon that. It can be easily based upon that.
Q Explain to me how an event report that's scheduled to be sent out every hour, regardless of any speed threshold, is based upon determining when a vehicle speed exceeds a speed threshold?
A Well, if there are provisions where the report is not sent, if the threshold has not been exceeded, then it's certainly not based upon. And sometimes speed reports are generated more frequently dependent upon whether the threshold has been exceeded or whether it has been exceeded over multiple periods of time.

Q So the trigger for sending the report has to somehow be related back to exceeding the speed threshold, correct?
A You used the word trigger. That's not in the claim. There are functions that the controller performs, one of which is determining whether a threshold crossing has occurred and another is cooperating with a communications device to send a remote vehicle speed-exceeded notification.
So the mechanism here is that there would be a speed notification event that's an event that has occurred and that would cause the notification to be sent, but that doesn't mean that it necessarily has to be sent immediately. It can be sent later.
Q But it has to have some relation to the event you mentioned?
A Well, I would think there is a relationship, yes.
Q But if it's a -- go ahead.
A Well, if it is a report that is sent out and shows that there is no speed threshold that's been crossed, then that is not a speed-exceeded notification. If there is information in that report where the speed has been exceeded, then I would label that as a speed exceeded notification.
Q So the report would have to identify that there was

a speed exceeded to constitute a speed-exceeded notification?
A Well, the report would indicate that there is a speed exceeded as part of being notification.
Q So an event report that just was hourly sending out the speed but didn't note that there was a speed exceeded wouldn't be a speed-exceeded notification?
A I believe that there is -- there has to be at least a based upon. You cannot avoid that particular language. So the event report would have some parameter, some basis upon which there's an indication that speed has been exceeded.
Q And what did you identify in the CalAmp LMU-3000 that satisfied that portion of the claim?
A I identified the vehicle position information report as the event report and then that message. There are a number of different identifiable factors that are provided in that, including the location and the speed and also the direction.
Q That report doesn't actually include a speed-exceeded notification, does it?
A It has a speed.
Q But I think you just told me that it had to have a note that it had exceeded a speed?
A Well, it didn't say it had to have a note that

exceeded a speed. That's your words. I said it had to be an event report which is sent out and there is an understanding that a speed increase has been achieved -- a speed threshold has been exceeded. And the server that would receive this on the other side of the wireless communication network would then be able to see that and compare that to previous data to determine whether or not there's some action that needs to be taken, but that's up at the server level.
Q Would the report need to show me what the threshold was?
A No.
Q Would it need to let me know I exceeded a threshold?
A It would not need to show that, because it was provisioned by the server that is sending the information back to. There's already been a provision, so there's been an understanding from the CalAmp server as to what the provision for that particular vehicle is. So, it can review this information that comes back and compare that to the specific thresholds that have been set. What is set in the vehicle is understood and known by the server.
Q And the event report that you relied on, is that event report only sent upon a threshold speed being exceeded?

A I think it is sent for other reasons as well.
Q Is it sent on a periodic schedule or what causes it to be sent?
A That's as it's been provisioned based on the instructions. They are downloaded from the server.
Q Are you aware of any CalAmp device that has been scripted? I believe Mr. Eiberger testified that you had to set up accumulators and do a lot of things, but after all of that are you aware of any CalAmp device that's been scripted to then, after determining when a vehicle speed exceeds a speed threshold for a first time period based thereon cooperating with said wireless communications device to send a remote vehicle speed exceeded notification?
A I'm trying to understand your question. This is part of the way in which the controller is set up to operate. And as I recall -- I don't have it in front of me. As I recall, testimony was certainly affirmed -- affirmed that position that there were thresholds. We heard that in testimony yesterday, as I recall. And so when the threshold is exceeded, that is a defined parameter. There is a way of reporting that. It's usually an event report from the LMU back to the server through the wireless connection.
Q So based on the testimony you heard that you could

set up a speed threshold using GPS speed and the fact that the LMU might obtain bus speed for other purposes and the fact that someone could program it to send a report upon certain triggers or events, you've determined that the LMU infringes Claim 1?
A I've determined that the LMU infringes Claim 1, the 3000 and 3030 and the others based upon each one of these elements being present, each one of the limitations being present in the device.
Q But you don't have an example of this actually happening? You're relying on the capability of someone programming it to do this; is that correct?
A Well, if you go back and look at the claim, the claim is a controller to be coupled, and it's for reading, it's for determining and for cooperating. That's the way in which it was set up to operate. It doesn't mean it has to be doing it in order to accomplish the claim.
Q Doesn't it actually have to send the report, though? There's no "for" in front of the "based thereon cooperating" language.
A It's based upon for -- you're determining -- it's for determining for a first time and for a first time period, and based upon cooperating. So cooperating is intended before the determining language and it's to be

coupled for determining.
Q And have you ever identified any device that's been scripted to do what's in Claim 1?
A I believe the deposition testimony says that it does.
Q Didn't the deposition testimony say that it was possible, but Mr. Eiberger was not aware of anyone actually doing that?
A His testimony was with regard to getting the speed determination off of the bus and using that in the calculation.
Q And remind me again what you're relying on, that if it wasn't that testimony.
A Well, I'm relying on that testimony. That's the testimony that said that his understanding is there's a small percentage that use -- there is a percentage that uses the speed off the bus for that calculation. But he said he'd have to go back and look at the script even more. He mentioned that. But he said the majority of the units were programmed in such a way that that speed threshold calculation was determined based upon the GPS speed, so that is a factor. We've already talked about that. But that's confirmation that such a threshold calculation is made, and a notification is sent based upon that.

Q But he didn't testify about a notification being sent based thereon, did he?
A I believe the testimony was that this was done. But the only issue he had was the fact that the speed used in the determination was, in most instances, not from a bus.
MR. KAUTH: All right. Let's turn to Joint Exhibit 5, the '278 patent, and let's go down to Claim 1 of that patent. And we're going to skip to the second clause of Claim 1, I believe, if you could blow that up, please.
BY MR. KAUTH:
Q Let's go to the element with a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communication device to send vehicle position information. Now that's the same controller you identified previously, correct?
A Correct.
Q And when we get to the next limitation, said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles.

Let's step through that. What's the vehicle device that you've identified for that claim limitation?
A The engine control module or unit, the ECU.
Q Okay. And after the vehicle device, it says, using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. What did you identify for that portion of the claim?
A The one that you're working with is the element, said multi-vehicle compatible controller -- was that your question?
Q Yes.
A Okay.
Q And specifically, the corresponding -- at least one corresponding vehicle device code from among a plurality thereof for different vehicles.
A Well, I was referring there to the codes that are sent that I have already discussed with regard to the previous patents that are code specific to vehicle devices that are associated with different bus architectures.
Q And when you say the codes that are sent, sent by what?
A Sent by the -- well, they're sent by the multi-vehicle compatible controller.
Q Don't device codes have to be signals from a vehicle

device?
A Here we go again. It is a vehicle device, but these are codes that are stored in the -- associated with the multi-vehicle compatible controller that correspond to different kinds of vehicle devices that would be or could be associated with different device architecture.
So the controller is going to be coupled to the vehicle data bus for communication thereover with at least one vehicle device. So it's attempting to communicate to a vehicle device on that bus with at least one vehicle device using at least one corresponding vehicle device code. So it's a device code that corresponds to that vehicle from among a plurality of different vehicles.
Q And specifically in your analysis, what did you identify as one or more of -- at least one corresponding vehicle device code?
A These are the same codes that I had indicated when we looked at a similar chart on the '885 and the '876 patent and these, in particular, are the ones that are the codes that are included in the messages like the 7DF on the CAN 11 bus.
Q Is the 7DF a query that's sent by the controller on to the bus?
A The 7DF is a message. It is a code that's embedded

as part of a message and part of a command signal to a bus generated by the controller.
Q And so, what portion of that is the signal from a vehicle device? Because I believe you testified that for the purposes of the claims, the vehicle device was not the LMU?
A Well, the -- it's not that the -- it is not the claimed vehicle device. The claimed vehicle device is the one that the multi-vehicle compatible controller is attempting to make communication with. That doesn't change the fact that in the system the controller is also a vehicle device. But it is not the vehicle device of the claim.
Q Otherwise it would be communicating with itself, correct?
A It might do that, too, periodically. But no, that would not be in the context of what the claim is describing.
Q So for this device code from among a plurality thereof for different vehicles, is that coming from a vehicle device other than the LMU?
A We have already gone through this. The LMU has the storage of the device codes that are associated with multiple devices across multiple vehicles. That's the entirety -- that's all the codes -- some of which,

according to the other claims we talked about, are working and some are non-working. It depends upon whether there is, in fact, a match within a particular device it's attempting to communicate to. That is the control code store. And so, it will utilize those codes selectively and sequentially to attempt to communicate with a device. And once again, when that device it's attempting to communicate with is the device that is associated with that code then there will be a response, and you have a match.
Q So you mentioned we talked about these codes previously with respect to working and non-working command signals?
A Correct.
Q So are you telling me the command signals that we talked about in the '876 patent, those same items, these six messages you list also satisfy the device code limitation in this claim?
A Well, the device codes in this claim would be included in a signal that is generated from that device. The propagation, the driving of the bus, is a signal. The signal has code embedded in it. The entirety of the code with its start of frame, end of frame, identifier, and all the other parameters that go into that multi-byte message, that is a command signal.

Q So if we look at here, I think the first message you had, the CAN message, if that's the command signal that's sent, I believe that's the mode 1 PID zero, are you saying the device code is the response back to that in this claim?
A Well, let's clarify. The mode 1 PID zero, it's actually 0-D for the speed. Zero defines a category of numbers. But that would be a message that is sent out, that's correct.
Q And have you identified anything other than that message to satisfy this device code limitation?
A Well, once the discovery has occurred there will be a number of different messages that can be sent out, but it only requires sending at least one corresponding code.
Q But your analysis doesn't take into account anything after discovery, you only disclose the discovery process and said that that infringed?
A Well, the discovery process does practice the claimed invention. Once the discovery process is learned, then you will have codes that are sent out that will be matching codes, because now you know what the bus is and you know what the devices are.
Q Can you specifically just identify one of those codes that satisfies this limitation?

A That satisfies --
Q At least one corresponding vehicle device code from among a plurality thereof for different vehicles?
A I've just identified in page E-7 in my chart. The 7DF for the CAN 11 bit, the 18DB 33 F1 for the CAN 29, and a list of others for each one of the types of buses.
Q And those are the identical messages that you identify as satisfying the command signal limitation, aren't they?
A That's correct. They're intended as part of the command signal that's generated.
Q So they're both command signals and device codes?
A Again, command signal by the Court's construction is a signal generated on the data communication bus for operating a vehicle device. Now within that command signal is a structure, and that structure is going to have certain voltage conditions. For instance, it's a zero and 3.3 volt signal or a zero and a five volt signal, depending upon the CAN bus instantiation, so there's voltage criteria.
There's timing criteria. For instance, if it's a PULS with modulated bus architecture, then it's going to change the way in which it presents that and how long it holds the bits. There are going to be -- it's going to

be a packetized type system so you're going to have different bits in different positions within the packet conveying different pieces of information, some of which are called headers, the start of the frame, the end of the frame would also be one of them.

There is a segment in the CAN bus architecture for an 11-bit identifier or a 29-bit identifier. And when you look at those together, they can be either extended or not extended. There are multiple different ways that you can do that. All of that is part of the command signal. Within the command signal you actually have the data which is the code.

Q The device code, you mean?

A Yes.

Q So within the command signal, I have that identical device code that I'm going to receive back from the ECU?

A You're not going to receive back the code that you sent. I mean, why would you want to do that? You're going to receive a response that indicates that, yes, I acknowledge that I am here, I can understand you, I can communicate with you, I am the device you're looking for, and it'll send back a response.

Q But in your analysis, you told me the same six command signals are also the device codes. You didn't tell me it was the responses to those command signals,

and your report doesn't identify any responses to command signals.

A I am not sure what you're saying. The whole architecture set up -- and I did this in my report and we did this in deposition -- that the command signals are sent out looking for a response, and it's based upon the response. It's the table that I showed -- it's the diagram that I showed in my report that indicated that responses were received or not received, and then they were evaluated to determine which one matched so that you would understand which one of these devices actually matched according to the code that was sent out.

Q Let's start with one of the messages, the CAN 11 bit 7DF message.

A Okay.

Q You've told me earlier that that was the command signal for the '876 patent, correct?

A That is a message and a code content that's included in the command signal that is sent, that is correct.

Q And is that a query or a command under the SAE nomenclature?

A Well, if you're going by that particular SAE that says command or query -- I think we went through that yesterday -- it's my understanding it is a command. The reason it is a command is because in this type of

architecture there's a bus arbitration. The bus arbitration is determined by priority. And the priority is determined by the specifics in the message content of the command signal that is sent. And when the bus is delivered over to -- under the command of a particular element, in this case, the multi-vehicle compatible controller, it then operates as a controller, as a master, and it sends messages out and commands, and those are command signals.

Q Those aren't queries for data under the SAE --

A Regardless whether you call it a query, it is under the claimed invention as supported by the specification, a command signal.

Q And do you recall that the -- if we go back to the '876 patent, since we're talking about command signals again, that the '876 patent differentiates between signals that cause an operation or signals that cause a response?

A Signals that cause an operation versus signals that cause a response?

Q Correct.

A That is an operation. And then, you do have signals that are responsive to it. But when you send out a message to a particular unit and that unit responds to you, responds to that command, then you know that you

have an association, you have a communication, and that is an operation.

Sometimes operations are -- for instance, I can send out a command signal to a memory and say, I want this particular piece of information. The response is it sends the information back. It doesn't do anything other than -- it doesn't do anything physically other than physically sending back the response that I'm looking for, and that's an operation.

Q And do you know why the patent would list operation or response as a response to a signal?

A Well, do you want to identify what you're referring to?

Q Let me go back to my original question before we leave that, and we'll come back to this one.

A All right.

Q So you've identified the CAN 11 bit 7DF message, that's your command signal?

A That's one, yes.

Q And all I see in here for your device code in '278, Claim 1, if we're just looking at the first one is also the CAN 11 bit 7DF message; is that correct?

A It's not the only one. I listed others.

Q The other five messages as well?

A Yes.

Q I'm trying to keep it simple and focus just on the CAN message here.
A All right. Then with the CAN message, there is a message and that is the content that I identified.
Q And that's the signal from a vehicle device using the Court's definition of device code, correct?
A Again, don't conflate this. It is a signal that -- that signal that comes from the multi-vehicle compatible controller is a signal that comprises the code from its code store that corresponds to different devices, and it is definitely associated with that device, and it's sending one out that it knows or expects that if that device is located on the bus and is a part of that bus architecture, then there will be a response from that device. It's a code that is associated with that device.
Q But aren't we bound by the definition in the patent language that we need to have a device code and that's a code from a vehicle -- a signal from a vehicle device?
A The claim says -- this again is the '278, Claim 1, which is what we are talking about, is that -- can you scroll down a little bit -- up a little bit so we can see the rest of the claim? It says, a multi-vehicle compatible controller to be coupled --
MR. KAUTH: Let's stick on the right column.

BY MR. KAUTH:
Q Sorry about that.
A Are we there?
Q We're there.
A Okay. Said multi-vehicle compatible controller to be coupled to the vehicle data bus for communicating thereover with at least one vehicle device. Then the phrase, using at least one corresponding vehicle device code. So the code that it uses is a corresponding vehicle device code. It corresponds to that particular vehicle device.
Q And when it says -- so it's a vehicle device code that corresponds to the at least one vehicle device, correct?
A That's right. In other words, it's a code that the vehicle device can understand.
Q And here, our device is the ECU, I believe you said?
A That's correct.
Q So this is a device code -- a corresponding vehicle device code that corresponds to the ECU?
A That's right. And part of the codes -- part of the code system that a device operates under is based upon the codes received and the codes sent. So this is a device code that corresponds to one vehicle device.
Q But it still has to be a signal from the ECU under

the Court's definition?
A This is at least one corresponding vehicle device code.
Q So --
A And it's a corresponding vehicle device code. And it corresponds to a code that the one device, vehicle device, would comprehend and understand from among the plurality vehicles. I mean, the entire essence of the specification that supports this claim is that there is a code store from which you can selectively sequentially generate codes that will be packaged in a message and in a command signal format sent to a vehicle device, and the one that understands it is going to respond. That's the essence of the invention.
Q And a corresponding vehicle device code, though, is still a device code, isn't it?
A It is a device code that is from the code store that is associated with various vehicle devices that is located on the LMU.
Q Isn't that also a command signal?
A The command signal is what is sent. What is stored is the code. You don't store a command signal. You store a code. You package the code into a signal, and you generate by driving that signal to the bus.

Q So that stored coded signal is now coming from the ECU, and it's a signal from the ECU?
A I hope so.
Q How did it get to the ECU?
A It's provisioned there. It's stated there. It's part of the table. I'm sorry. How did it get to the ECU?
Q Yes.
A It is generated by the vehicle controller from its code store packaged and sent as a message to a command signal to the ECU.
Q And so now the command signal went from the controller to the ECU --
A I hope so.
Q -- and we're waiting for a corresponding device code back from the ECU? It's not that 7DF message, I assume, 'cause that was a command signal. So what's our device code that comes back from the ECU?
A You're doing a very good job of confusing the claim. The multi-vehicle compatible controller uses at least one corresponding device code from among a plurality of the different vehicles. That's the code that it uses.
So I mean, the code itself that's drawn from the LMU store, which is the multi-vehicle compatible controller, it is going to draw from that store of codes

that are associated with various vehicles and send that information to the vehicle device.

And if the vehicle device understands that communication, understands that code, then it will respond. And when it responds, that information will be returned to the bus in the read instruction format and the multi-vehicle compatible controller is going to receive that information and then make determinations based upon that.

Q So is that store of codes filled with signals from a vehicle device to follow the Court's definition of device code?

A Can you point to me where in the Court's definition that we're talking about the store as being the signal?

Q You told me there was a store of codes, and that's what we're talking about --

A Correct.

Q -- in Claim 1, but I'm just looking at the language of Claim 1 that requires it to be a device code which has been construed as a signal from a vehicle device. So I'm trying to figure out if it's really the store of codes, well, then those must be signals from a vehicle device to qualify as device codes, correct?

A To qualify as a device code, according to this claim, is that -- it says, using at least one

corresponding vehicle device code, its corresponding vehicle device code. So it corresponds to the vehicle device. It's a code that corresponds to that vehicle device. And when that is -- and that's what it's referring to.

Now if you're trying to point to the fact that somehow this is a code -- I mean, it communicates with the codes that it has to another vehicle device that has its own embedded codes. And so the communication occurs when there's an understanding.

Q I guess I'm not understanding whether you're applying the Court's device code definition to the corresponding vehicle device code in this claim.

A Well, with regard to the claim construction that the Court has provided that I've adopted, the definition that he has ascribed to device codes is signal from a vehicle device. Now the device codes that are part of the code store for the compatible controller, again, it is a vehicle device. It's not the vehicle device that's on the other end of the bus that the controller is communicating to, but it is still a vehicle device. So even the codes that are there are code signals from a vehicle device. But it is not from the vehicle device that it is communicating to. It is itself sending that code.

Q So we have two different vehicle devices that you're using in this claim?

A No. The fact that the -- the fact that the signal that is coming from the multi-vehicle compatible controller is also a signal from, in quotes, another vehicle device, it's just a fact. It's not required by the claim, but it is a signal from a vehicle device. But in this case, this vehicle device that we're talking about is the controller that's communicating with another vehicle device.

Q So would it be accurate for me to say that it's a corresponding, and instead of vehicle device code, I would say signal from the LMU?

A It's communicating with at least one vehicle device, using at least one corresponding vehicle device code, so there is communication. It's communicating to the device. The device is communicating to it.

Q But you told me when we use vehicle device in the section corresponding vehicle device code, that vehicle device for those purposes is the controller, not the ECU, correct?

A Again, it's a corresponding device code. And the fact that the device at the other end -- that is that the controller is communicating with -- communicates with it, understands it, you've got a match, then it is

a corresponding device code.

Q I understand that's your position. I think this is a simple question. In the clause, corresponding vehicle device code, when we apply the Court's definition that that device code has to be a signal from a vehicle device, in that clause, corresponding vehicle device code, what vehicle device are you relying on so that it satisfies the Court's definition?

A Well, it is a corresponding vehicle device code. It's a code that corresponds to a vehicle device. And that code that is stored by the controller that is communicated to the vehicle device does correspond to that vehicle device. If it doesn't, there's no response. If it does, there's communication.

Q Can you identify that vehicle device for me?

A The ECU.

Q But I thought a minute ago you told me that it didn't satisfy the device code definition because it really had to come from the controller instead of the ECU?

A I really have no idea where you're going with that. There's a device in the claim. The claim is applied for the vehicle device to the ECU. That's the one I've called out. I've called it out on every one of these patents. It's exactly the same one every time. And in

the ECU, there are different ECUs for different vehicles. There are different ECUs for different models, in some cases. And there are different bus architectures.

And so, there is a code store that's located within the multi-vehicle compatible controller -- in this case the LMU -- that has a plurality of codes, some of which would apply to one ECU, but not another.

And so, the controller will pull from its code store and sequentially send out the codes that I have identified to determine whether or not there is a corresponding vehicle device that will understand and communicate with it. That's the operation. That's the way I've represented it on every patent and every claim.

Q So if I understand correctly, the corresponding vehicle device code would be a signal from the code store you mentioned?

A Again, there is no signal in the code store. It's code to the store --

Q Let me try again.

A Please do.

Q It would be a code from the code store?

A The code that is then lifted from the code store packaged as a message and sent as a command signal, yes.

Q So that's not the actual CAN 11 bit 7DF message?

It's something different?

A That is the message.

Q Is the CAN 11 bit 7DF message the code that's in the code store?

A Yes.

Q And so, that code that's in the code store is an example of the at least one corresponding vehicle device code?

A Yes.

Q And that CAN 11 bit 7DF message, though, is not a signal from the ECU, is it?

A Well, no. The claim doesn't require it to be from the ECU. In fact, states otherwise.

Q So it's a signal from the controller?

A True. Correct.

Q Just like a command signal?

A Well, a signal coming from the controller across the bus to the ECU is a command signal, yes.

Q So haven't we now equated command signals and device codes and ignored the Court's construction?

A No. You're ignoring everything I've said for three times now, and I've said it three times this morning. There is a code store. The code is embedded. It's encoded into a message, according to the bus protocol. And that bus protocol for the -- for instance, in a CAN

11 bit, the 11 bit identifies the identifier, the identification is an 11 bit portion of that message.

There is a start-up frame message. There are other bits that indicate when -- the end of the frame. It's an 8-byte message of the data is comprised in certain portions of that message. And the 7DF is part of the code that's incorporated in that.

So you take the code from the store, you embed it into a message according to the specific bus format protocol, and you send that out as a command signal using the appropriate timing and using the appropriate synchronization with the device downstream and using the fact that you are setting a dominant or a recessive bit to determine -- help in priority. And there is a lot of things that go into that message that all together are constructed as a command signal, but the code is a part of the command signal. It's embedded in it.

Q Okay. I think we've established, then, what's stored in your code store is this CAN 11 bit 7DF message?

A Correct.

Q And that's what you're using to satisfy the corresponding vehicle device code portion of that claim?

A Correct.

Q Let's move on to the next clause, a downloading interface.

A Okay.

Q Well, let me back up. One thing I forgot, the plurality. This vehicle device code, the 7DF message or code has to be from among a plurality thereof of different vehicles. How did you interpret that?

A That, again, goes back to what we discussed several times, which is the codes that are stored on the LMU that are associated with different vehicles and different device types on those vehicles. It's the plurality of codes that's associated with a compilation of different vehicles and bus architectures.

Q All right. Now we can move on to downloading interface. For permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller. So let's start. What's the downloading interface?

A There are two downloading interfaces that are provided in the LMU. One is the serial port which I identified during my direct. And the other one is the over-the-air that's used with the PULS system.

Q How about on the VPOD and the VPOD2, is there a downloading interface?

A Through the wireless, yes.

Q Does the VPOD or VPOD2 have its own independent wireless?

A The VPOD/VPOD2 is -- again, is the OBD board that with cabling, for instance, here, and that is cabled -- connected to other LMUs that do not have an OBD connectivity. And so the VPOD is in conjunction with those other LMUs, such as the 26. I think it's the 26 or the 42.
Q Okay. So you rely on --
A It's a combination.
Q Base LMU for the --
A Correct.
Q And then the next part of that is for permitting downloading of enabling data related to at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.
A Correct.
Q Can you identify for me what the -- start with the LMU-3000, what's the enabling data related to the at least one corresponding vehicle device code?
A Well, that would be embedded in the programming instructions that would be downloaded, the provision device to communicate across different bus architectures with different devices.
So as a part of the instruction, you have codes that are stored. You would download the codes. So you have codes that are a part of the table. Some would refer to

it as a database, but it's in a table. And so, these codes provide the plurality of different ways in which you can use code to correspond and to communicate to different devices. But you have to have programming instructions to access that code. So part of the enabling is the program instructions that establishes the access, the identification, the retrieval, and the packaging of that information. That's all part of the enabling.
Q So it's firmware or script: is that correct?
A Yes. In fact, this would be operating firmware.
Q And how do those relate to the corresponding vehicle device code?
A Well, the claim requires downloading of enabling data related to the at least, so the enabling data, for instance, is part of the programming instructions that allows you to gain access, allows you to package it, allows you to compare. These are part of the programming instructions that enable the use of that data.
Q Doesn't the '278 have a claim that separately calls up programming instructions, like Claim 8?
A Let's see. Claim 8 is downloading interfaces also for permitting downloading of at least one program instruction -- programming instruction.

Q So would you read, then, a programming instruction is something different than the enabling data identified in Claim 1?
A The downloading of enabling data is based upon the programming instruction. When you carry out a program instruction to access the device code that's in the store, that is basically read, read from a certain location, that's the enabling portion of the instruction. Claim 8 just says, you know, you have that, but Claim 8 says it's also for permitting downloading of at least one programming instruction. And clearly, there are lots of programming instructions built into the firmware.
Q But when we read Claim 8 and incorporate independent Claim 1, doesn't the programming instruction have to be different than enabling data? Don't the claim terms have to mean different things?
A Well, like I said, there are lots of program instructions. There is certain program instructions that deal with the enabling for the access of the device code and the use of the device code and there are lots of other program instructions, such as program instructions for how to cooperate with the wireless interface for the RF communication, program instructions for cooperation in retrieving and exercising the GPS,

program instructions for communication and coordination with the BOD board [sic]. There are lots of program instructions. And so Claim 8 just says find one, and there are plenty. And that's not necessarily -- and in fact, I can show different ones for the cooperation of these wireless GPS and BOD that are distinctly different from the enabling data for access or use of the corresponding code.
Q But doesn't enabling data have to mean something other than programming instruction based on the claim?
A There are certain programming instructions that are directed to enabling data. There are other program instructions that are, therefore, establishing communication across different internal or external buses. There are a lot of different program instructions, one or more of which is related to the enabling of data. Claim 8 says there are others.
Q So, in your opinion, to satisfy Claim 1 it could be a programming instruction, even though that's separately called out in Claim 8, as something other than enabling data?
A Yeah. Because in a programming instruction, some of the instructions include data. The program instructions basically capture information of data out of registers.
Q And what does enabling data mean in Claim 1?

A For instance, configuration data that allows you, when you operate an instruction based upon a certain configuration, then it will retrieve certain data -- certain codes, excuse me.
Q And does the enabling data have to be related to anything to satisfy Claim 1?
A The claim requires the enabling data related to at least one corresponding vehicle device code.
Q So in the example you gave previously, if we stick of our CAN 11 bit 7DF message, the enabling data would relate to that corresponding device code?
A Yes.
Q And what did you identify that CalAmp downloads through the downloading interface that relates to the 7DF in code?
A Well, I indicated that either through the serial port and/or through the PULS, over the air, firmware is downloaded. And that firmware would include the enabling data portion of that. There would be other parts of the firmware that are other program instructions that are not related to the enabling data.
Q So when it says, enabling data related --
MR. KAUTH: Can you scroll back up to claim 1, please.
BY MR. KAUTH:

Q When it says, enabling data related to the at least one corresponding vehicle device code, are you saying that could be the actual CAN 11 bit 7DF code?
A No. Because this is enabling data related to the code, not the code.
Q That was my understanding as well, so --
A Good.
Q -- what does it download that's not the code, but that is related to the at least one corresponding vehicle device code?
A Well, let's set the record straight. One of the things it does download is the code.
Q Does that satisfy that limitation?
A No. The code is downloaded. The code is provisioned. That code is present. That is the code store. Then, there is in addition to the code there is firmware that's associated with, related to that device code for the purpose of enabling it. Enabling it can take on many different forms. One of the forms is being able to access it, to be able to address a specific code associated with specific vehicles, to be able to retrieve that information and to enable its use for providing it across the bus to send it across the OBD as an OBD-II interface, so -- but the enabling data is not the same as the code. The enabling data corresponds to

the code.
Q And in your opinion, would the enabling data that's downloaded need to go to the OBD layer of the LMU or to the LMU layer or does it matter?
A Yes, yes, and no to your three questions. It can be LMU --
Q Let split those out.
A -- it can be OBD, but it doesn't necessarily have to.
Q All right. We're going to jump back briefly to the '876 patent, Joint Exhibit 1, and if you could direct your attention to column 3. And at about line 12 there's a sentence that begins, "The at least one set of command signals...," and continues on through the end of the paragraph there. Would you read that one, please?
A You say beginning at line 20?
Q Beginning at line 12.
A Line 12.
Q And we've highlighted it on the monitor there.
A Okay. I'll read what's highlighted, then.
"The at least one set of command signals preferably comprises at least one working command signal and at least one non-working command signal for a given vehicle to thereby provide compatibility with a plurality of different vehicles. In other words, multiple signals or

codes can be generated on the data communications bus, and only that code for the given vehicle and device will cause an operation or response from the vehicle device. Such an arrangement provides for a relatively simple and straightforward approach to interface with a vehicle having a data communications bus."
Q And I'd like to direct your attention to next to the last sentence concluded with that a device would "...cause an operation or response from the vehicle device." And that's the distinction I was asking you about earlier, that the patent notes that you will have working and non-working command signals and that, in other words, multiple signals or codes can be generated on the data communications bus and only that code for the given vehicle and device will cause an operation or response from the vehicle device.
A Okay.
Q Do you see any significance to the fact that they broke out operations from responses?
A Yes, I do.
Q Please tell me what you see.
A Well, every response depends upon an operation. You cannot have a response without an operation. But you can have operations without responses. So the mere fact that, for instance, if I send out a code that a

device understands, a vehicle device, the vehicle device is going to first bring that code in. It's going to evaluate that code. It's going to activate -- in this case, it's the STM device. It's going to activate arithmetic logic unit in the armed core that's embedded in the 32F device. It's going to operate on that.

And based upon the operation and the instructions that have been downloaded, it's going to determine whether a response is required or not. There's always going to be an operation. In some cases, there may be in addition a response. So, it's proper to break them out. It will cause an operation or a response. And in some cases, the operation doesn't have response. In some cases, they do.

Q Can a command cause an operation?

A Yes.

Q Can a command cause a response?

A It can cause both. It can cause an operation that includes a response.

Q Can a query cause an operation?

A In some message formats a query, it can be comprised as a command signal that also has a response, yes. It requires an operation. Every query is not hard wired into these controllers. It is a query. It's a statement. This is a signal that is sent as a command.

And if it requires a response, then one is granted.

Q And are some of these queries defined in a standard and others are manufacturer-specific?

A There are queries that are included in standards. There are also such that a manufacturer can define, certainly.

Q So if I wanted to query for engine temperature, that's going to probably be one of my standard ones?

A If I send out a query signal -- if I send out a query which, again, is a command signal that is sent out to a device, then that signal that's going to be received by the device requesting temperature, it's going to require an operation. An operation is that it's going to have to read and understand what that temperature is and then, as a part of it, is to return a value, which is a response.

Q And does the SAE define a series of queries, like the mode 1 PID zero message?

A The J19-- I think it's the -- yeah. 19, making sure I have the right numbers. The J1979 defines the PID, the P-I-D messages, the parameter IDs. And then, others, such as the 1978 shows how you use those in a particular segment.

Q And then manufacturers can add on their own specific, like if I want the true odometer reading,

correct?

A There are provisions for that. And that's part of some of the extensions that are available.

Q And the SAE actually classifies those into commands or queries, doesn't it?

A Remember, we went through that a couple days ago. And I said the order does not necessarily indicate that just because someone outside defines it as a query that it's not a command signal.

Q Are you aware that the header bytes actually indicate whether something's a command or a query?

A There are header bytes that define a command that does not require a response and commands that do require a response, and some of the commands that do require a response, sometimes they're referred to as a query.

Q And so, when the SAE says that a request is either a command or a query, you don't buy that designation?

A Well, you didn't say -- I don't believe the standard said accept. I think it said -- I think it's what we read yesterday was command signals are queries. And I'm saying "or." The disjunction of the "or" does not necessarily mean that they're different. It could be different names that are the same thing.

MR. KAUTH: All right. I have nothing further, Your Honor.

THE COURT: All right. Thank you very much.

We're a few minutes before noon, but let's take our lunch break now and come back and have any redirect examination that you may have. It's five minutes before 12. We'll be back at 1:00. Enjoy your lunch.

(Jury exits.)

All right. Thank you very much. The jury has withdrawn, and we are in recess. Enjoy your lunch.

(Lunch recess.)

All right. Is there anything to take up before we call the jury?

MR. KAUTH: No, Your Honor.

THE COURT: Very good.

Could we have the jury, please.

(Jury present.)

The record should reflect the jury has returned, and the parties are present. We have Mr. McAlexander in the witness box. We're on redirect examination. When you're ready.

MR. SANTURRI: Thank you, Your Honor.

REDIRECT EXAMINATION

BY MR. SANTURRI:

Q Mr. McAlexander, can you refresh the jury's recollection of what an embodiment is in the context of

the patents?
A Yes. An embodiment is an illustration. And as I mentioned yesterday, a person that provides a patent application for an invention, the patent description has to at least include one illustration, one embodiment, one way in which the patented invention can be implemented, so it's an illustration. It's an example.
Q And is it common for applications to have multiple embodiments?
A Yes, quite common.
Q And when you go about the process of analyzing claims, do you have to grab each of those embodiments and fit them into a particular claim?
A No, just the contrary. You can take the claim -- each claim, certainly you go back and look into the patent to see how that claim is practiced or illustrated in the patent, but you're not required, in fact, you're preempted from -- I'm preempted from taking what is an embodiment and reading that into the claim. The reverse is not true.
Q All right, sir. So we heard hours of testimony about door locks over the past two days. Is there anything in the asserted claims or the Court's construction of the claims that requires door locks to be part of the claim?

A No, nothing at all.
Q And is there anything in the claims that will require the jury to consider whether door locks are operated or not, as part of infringement analysis?
A No, not a consideration.
Q If I can invite your attention to Figure 3 of Joint 1. This is from the '876 patent. And we saw this a good bit today and yesterday. And you talked about this Vehicle Device A. And one of the examples that many of the questions related to is if you considered that to be a door lock, right?
A That was one of the questions, yes.
Q Are there other devices that are contemplated by the patent rather than a door lock that could also take the place of Vehicle Device A?
A Yes. There are a number of different ones that are contemplated, including the ECU, the engine control unit.
Q And if you can refer to the spec -- and I can pull it up if you need me -- is there a portion of the spec that explains that vehicle devices include, specifically, an engine controller as one of the options?
A There are. I'm looking for it now.
Q I may be able to help us here, the bottom of column 6.

A That's where I'm at. I'm just looking for the words. Oh, for instance, it identifies at line 63: For simplicity of explanation, these devices are schematically illustrated by the two blocks 44, 45, respectively labeled "vehicle devices" (sensors, actuators, etc.) and "vehicle controllers (engine controller, transmission controller, etc.)"
Q The next sentence goes on to the next page, column 7. "In other words...," up at the top here, vehicle devices include both simple devices and more complicated devices. Do you see that?
A Yes, I do at the top of column 7.
Q Does that suggest to you that vehicle devices include a number of things? Yes, door locks are one of many, but engine controllers are also included?
A Well, engine controllers are also included. It's shown at the bottom of column 6. But the vehicle devices are devices that communicate across the bus. And they can be controllers that control any of a number of other things or they can be the actual sensors or the actual device itself that operates something.
Q And if rather than talking about door locks, which the jury doesn't have to consider for their infringement analysis, if we talk about the engine control unit, like what the CalAmp device communicates with, and if we have

Vehicle Device A as the engine control unit, does the CalAmp device operate under exactly the circumstances as are illustrated in Figure 3 here?
A It does. But for the same reason, I would not import a restriction. For instance, door lock has to be what's in the claim. I would say engine control unit also doesn't have to be in the claim. That is an example of a way in which it can be instantiated.
But when I go look at an infringing product, alleged infringing product, and I find that it has an engine control module or unit that is associated with a bus structure, then the corollary is quite clear. I can read it on that ECU in much the same way I could read it on an ECU in the patent.
Q In this case with respect to these accused products, the ECU is, in fact, the device referenced in many of the claims?
A It is the device that I have identified in many of the claims, yes.
Q As communicating with the CalAmp devices?
A That is correct.
Q All right, sir. Now, we also heard a lot about SAE standards and standardized buses and the J1850 and 1978, a number of different standards. Is there anything in the claims or the Court's construction of the claims that

somehow requires that in order to infringe any of these claims a device must follow SAE standards?
A No.
Q So whether or not the CalAmp device follows SAE standards is irrelevant for purposes of infringement; is that right?
A That's correct. For purposes of infringement, it's taking the claim and the words of the claim and determining whether or not an accused product practices or embodies all of the elements that are required by that claim.
Q And we also had a good bit of discussion of flow charts and the specific messages and the order of those messages. Do you recall that?
A Yes, I do.
Q Is there anything in the claims that requires a specific order or a specific organization for the -- which signals are sent out in order to determine whether any of the claims are infringed in this case?
A No. In fact, if you take an alleged accused product and evaluate that and it has an order, then as long as the elements of the claim are met then you can read that claim on that particular product. If the product that one reads that claim on changes the order, it makes no difference in terms of the claim. The claim doesn't

define a precise order other than sending out working and non-working signals and getting a response and comparing that response.
Q All right, sir. During your cross, you also talked some about specific customers and whether specific customers had performed the speed exceedances or speed thresholds. Do you recall that testimony?
A I do.
Q And I believe you were asked whether you knew of any customers who had actually done that and you referenced Mr. Eiberger's testimony?
A I did.
Q I don't know if you had the benefit of this exhibit at the time, but Plaintiff's Exhibit 16, do you recall the interrogatory responses provided by CalAmp?
MR. KAUTH: Objection, Your Honor.
THE COURT: The objection?
MR. KAUTH: Outside of the scope of the expert's report.
THE COURT: The interrogatory's in evidence without objection at Plaintiff's Exhibit 16. It would seem to me this is fair rebuttal based on the matter brought up in cross, so I'll overrule the objection.
BY MR. SANTURRI:
Q Do you recall reviewing the exhibits to Mr. Hall's

deposition which included this list of customers?
A Yes, I do.
Q And as you understood the testimony that the jury's heard thus far, did this list of customers include customers for whom CalAmp had loaded speed scripts for bus speed and speed thresholds on the units?
A That's my understanding. That's what I recall, yes.
Q That's found at Plaintiff's Exhibit 16?
A Correct.
Q All right, sir. Now I recall, I think yesterday at the end of your testimony or your cross, counsel asked you whether the CalAmp products infringed when you're holding them in your hand. Do you recall that?
A Yes, I do.
Q And I don't know if you were here for the preliminary instructions, but the preliminary instructions explained that to infringe you have to make, use, sell, or offer for sale product. Do you understand that to be the case?
A Yes, I do.
Q And does CalAmp sell these accused products?
A Yes, they do.
Q And was it necessary for your analysis to try to determine whether the accused products infringe when they're sitting in your hand in the witness box?

A No, it was not.
MR. SANTURRI: Your Honor, I don't have any further questions.
THE COURT: All right. Thank you very much.
Mr. McAlexander, you're excused, sir.
Thank you very much.
THE WITNESS: Thank you very much, sir.
THE COURT: You're welcome.
Your next witness, please.
MR. SANTURRI: Your Honor, we'll be playing the deposition of Steven Hall. And if the Court will give me just a moment, I'll get that cued up.
THE COURT: Let's give Mr. McAlexander a chance to collect his papers as well.
MR. SANTURRI: Madam Clerk, if you can switch to my laptop. May I proceed, Your Honor?
THE COURT: Yes, you may.
(Video deposition of Steven Hall played from 1:19 p.m. to 2:33 p.m.)
Thank you. That concludes the deposition.
Your next witness.
MR. SANTURRI: I will be calling Christian Tregillis. I'm going to need to move my laptop back and set that up.
THE COURT: All right. That's fine.

Ladies and gentlemen, if you want to stand and stretch your legs, now is a good time. While everyone is getting situated, it's always good to stand up a bit. We sit too much doing this. Counsel, you as well, if you want to stand up, feel free.

(Pause in proceedings.)

For planning purposes, we'll go until about 3:00, and then we'll take our break then. So if you can find a convenience place to break at that time.

(Pause in proceedings.)

All set?

MR. SANTURRI: Yes, Your Honor.

THE COURT: If you'd swear the witness.

DEPUTY CLERK: Please raise your right hand.

Do you solemnly swear, under penalty of perjury, to tell the truth, the whole truth, and nothing but the truth, so help you God?

THE WITNESS: I do.

DEPUTY CLERK: Please take a seat.

Please state your name for the record, sir, spelling your last name.

THE WITNESS: Sure. Christian, like the religion. Last name Tregillis, T-r-e-g-i-l-l-i-s.

DEPUTY CLERK: Thank you.

THE COURT: All right. You may proceed.

MR. SANTURRI: Thank you, Your Honor.

CHRISTIAN TREGILLIS, PLAINTIFF'S WITNESS, SWORN

DIRECT EXAMINATION

BY MR. SANTURRI:

Q All right, sir. Can you tell the jury what your occupation is?

A Yes. I'm a forensic accountant and financial analyst. Forensic means an investigation that might be performed in the context of a legal dispute. An accountant is somebody who is doing accounting and financial analysis of financial records and accounting statements.

Q All right, sir. And can you tell us by whom you are currently employed?

A Yes. I work for a company called LitiNomics, which is sort of the combination word of litigation and economics put into one word.

Q And can you tell the jury what the business of LitiNomics is?

A Yes. LitiNomics is made up of a firm of people like me who do accounting and financial investigations, like I said, often in the context of legal disputes, sometimes not. Sometimes we're investigating things where someone just wants something better understood, something financial, economic, or accounting in nature.

Q And can you give the jury the benefit of your educational background?

A Sure. Well, I'll start with college. I graduated in 1989 from Occidental College with an undergrad degree in economics. I worked for two years and then -- I worked at a bank called First Interstate Bank of California. And then, I went back to school from '91 to '93 at the University of Chicago and got an MBA in finance and accounting, a Master's in business administration.

Also, as part of some of my professional credentials, I have a responsibility to take classes and remain current on education in fields like accounting, finance and licensing, licensing of intellectual property, because that's one of the credentials that I hold.

Q All right, sir. I think you mentioned working at First Interstate Bank, so if you can take the jury through your education past, I guess, past your MBA?

A You mean my work history?

Q I'm sorry, yes, your work history after getting your MBA.

A Sure. So starting in 1993 and through today, I've worked in the field of forensic accounting. And it started out in 1993. I worked for a firm called Coopers

& Lybrand. It used to be one of what we called the Big Six and then the Big Four or Final Four or it's a smaller number of accounting firms now. And I worked, like I said, at Coopers & Lybrand. That was from '93 to '95. I worked at Ernst & Young from '95 to '98. And I then worked at Deloitte & Touche, and I was a partner there. I worked there until 2004, which is when Congress -- in 2002 actually is when Congress enacted the legislation called Sarbanes-Oxley. It really changed what big accounting firms could do.

And as a result, I, and people like me at the big accounting firms, ended up breaking off and going and working at different firms. And that's what I did also in 2004. And I worked at smaller firms. And then I ultimately joined LitiNomics in 2011, and I have been there since that time. I, like I said, really performed the same kind of work all the way through that time period from '93 up to today.

Q Do you hold any professional certifications relevant for today's purposes?

A Yes. I think I mentioned I'm a CPA. Maybe I didn't, but I am a CPA. I'm also accredited in business valuation, which is a credential relating to valuation of businesses and intellectual property like patents. I'm also certified in financial forensics, which is

another credential relating to accounting and financial investigations. And then I think I mentioned earlier, I'm a certified licensing professional, which is a credential that pertains to people who analyze license agreements, like a license agreement pertaining to the use of intellectual property, like patents, a patent license agreement like in this case. And so -- so I think that's it. Those are the four credentials that I have.

Q I think you mentioned earlier that you have to do continuing education for your CPA. Do you have to do continuing education for the other certifications?

A I do. Each of those has requirements. You have to take an exam to get the credential. You have to have experience. So like in the case of my licensing credential, I had to give them a list of licensing investigations and negotiations in which I'd been involved prior to getting that credential. And then you have to remain active doing licensing investigations and negotiations, and I've continued to do that since I got my CLP credential. But the same thing applies in accounting and financial investigations, for example, to get a CPA and maintain a CPA.

Q And do you work for other entities other than LitiNomics?

A Yes. I also work for the American Institute of CPAs, and I've been the chair of the Economic Damages Task Force, which is a group of people who figure out ways to analyze damages in litigations like this. And I've taught courses and written practice aids.

The goal of the AICPA is to help people in my field do this kind of analysis with the benefit of the knowledge sharing and sort of understanding best practices and how to do this kind of work. So I've written practice aids and taught courses and met with people and taught seminars, those kinds of things, written articles in that field. So I have taught, for example, for the Florida Society of CPAs, taught them on financial statement investigations.

And the same kind of thing in the other fields, too. But really, we have to maintain education requirements, and then we also have to help people, so I've done that. I am also currently re-writing the exam for the certified licensing professionals to help keep the exam current, write new questions so people don't always get to use last year's questions to study for the exam, things like that.

Q And as part of your work, have you been involved in license negotiations?

A Yes, both in a litigation context like this where

I'm looking at what the value of a license would be between Omega and CalAmp. But also, sometimes I do it just to help others in other situations where they might be negotiating a license agreement with no litigation pending or perhaps somebody has patents or a patent portfolio, and they want to know what it's worth. I'm doing that right now for somebody. It's an estate valuation where a gentleman, an inventor, died and they're trying to figure out what to do with the patents. And they've had an offer, but they don't know whether to sell them off or to license them off. They don't know what the right price is, so I'm helping them with that.

Q Can you estimate how many times you've been involved in those types of license negotiations?

A License negotiations and analysis of licenses, 50 to 100, maybe, something like that.

Q And have you ever analyzed license agreements for technology similar to what we're going to be talking about today?

A Yes. Other than in this case, I have also analyzed a reasonable royalty license agreement for steering wheel controls where there is an inventor that created the device that connects through the OBD-II port and allows one to control steering wheels on your steering

wheel, speed, your radio, things like that. So, I helped in negotiating a license for that.

I've also helped a company that builds a device. It's called Belkin. They have a device that you can connect your iPod into and it will attach into your dashboard and it will charge your iPod and it will allow you to listen to the iPod through the radio and hold the iPod. And then, I just worked on a variety of wireless communications-related technologies and valuing and licensing those a lot over the years. There's a lot of activity in that area.

Q And have you been retained in this case as an expert witness?

A Yes.

Q And how are you paid for your work in this case?

A Well, I personally am not -- I don't get paid by anybody involved in this case, but my company gets paid $540 an hour for my work. I then get paid my salary from my company. But -- and so that's the way it works is I get -- my firm charges based on the work that I and my team perform.

Q And is the compensation you receive at all related to the opinions you actually provide?

A No. My firm just bills for the time that I work, and it doesn't depend on what my opinions are.

Q All right.
MR. SANTURRI: Your Honor, at this time we'll tender Mr. Tregillis as an expert on licensing and damages.
THE COURT: Any objection?
MR. KAUTH: No objection, Your Honor.
THE COURT: He is so qualified.
BY MR. SANTURRI:
Q All right, sir. When were you first contacted to pick up work in this case?
A A year ago in February of 2015.
Q And can you explain generally what you were asked to do?
A Well, the assignment was to calculate the damages pertaining to what CalAmp is accused of doing. In this case, there is alleged patent infringement. And so my assignment was to calculate the damages if the jury is to come to a conclusion that CalAmp has, in fact, infringed valid patents. If CalAmp is responsible, what's the amount? What's the damages? What's the -- what should the award be? That was the question to me.
Q So for the purposes of your analysis, do you have to assume that the patents are valid and infringed?
A I do. In fact, if the jury should decide the patents are not valid or there is no infringement, then

my whole analysis would really be useless, because then there's no amount that's due. If the jury, however, concludes that there has been infringement and there are valid patents here, then my analysis would be relevant. So in the case that that turns out to be what the jury decides, then I've prepared an analysis that I believe would be helpful to them, but really ultimately they'll have to make the decision on that, too.
Q And I may be jumping ahead some, but does your analysis depend on which patents or which particular claims are infringed?
A Not really. There are four patents in suit. And the four patents in suit, the way that I have estimated the damages is to look at what is called a reasonable royalty, which is like the patent license negotiations that I've been talking about earlier. And so, I'm estimating what the parties would negotiate, if they were to sit down and conclude on what a reasonable royalty would be.
Looking at the license agreements that Omega has with others, I think there's good reason to believe that the negotiation with CalAmp would look a lot like those, especially considering the Most Favored Nations clause, which means that if they were to offer better terms to CalAmp, then all the rest of their licensees would get

those better terms. So there's a strong incentive to stick to terms that are a lot like the other agreements that are out there, and I think that's very reasonable.
So really, that's the question is what's that reasonable royalty to compensate for the use of the patents. And that reasonable royalty is the same, whether you use one or two or all of the patents in suit or all of the whole bunch of patents, it's the same rate. So as a result, it's sort of the tricky sort of answer to your question, but it's the same answer regardless of whether one or all of the patents in suit is found to be invalid and infringed.
Q All right, sir. Now, I think you may have mentioned reasonable royalty. Can you explain -- well, let's start with an overview of your opinions as to what a reasonable royalty would be in this case.
A Sure. Well, like I was saying, in patent damages, I understand that the law tells me I am to calculate and the plaintiff, if they win the case, they are entitled to something that is, at a minimum, a reasonable royalty. That's the floor. There are ways that one might potentially get more than that, but that's the floor, that's a reasonable royalty.
So a reasonable royalty for my purpose is the result of a hypothetical negotiation that takes place on the

date of first infringement. So hypothetical negotiation means the CalAmp people are in the room, Omega's in the room, they are sitting down, they're given some instructions about that negotiation, it happens in April of 2011, which is right when the LMU-3000 was launched 'cause that's the first product that is alleged to infringe the patents in suit. And so that's the time. They sit down.
And basically, it looks a lot like the actual negotiations that both parties have entered into for intellectual property for patents. And there are a couple differences, but that's the construct, basically, forcing them into a room to come to a conclusion on what a fair level of compensation is for the use of these patents.
In this case, it's for the past use. And then I will take a look at that royalties construct that I talked about, the royalty rates, apply those to the actual numbers of actual sales that have happened from April of 2011 until today and multiply those out and calculate the amount of the damages. That's really my assignment.
Q All right, sir. You prepared a summary of your reasonable royalty -- the reasonable royalties.
MR. SANTURRI: Madam Clerk, if I could have

the Elmo.
BY MR. SANTURRI:
Q And we are going to go back and work through this in more detail once we get down the road, but can you give us a basic summary of the structure that you've laid out?
A Sure. So looking at this schedule, what I can see at the top, Schedule 1, Reasonable Royalty Summary, you can see there's a section at the top for the LMU-3000 and 3030, and then there's a section below that for VPOD's and VPOD2's and then below that is the total for both of those subsections.

But just basically what you see here is for each year after that April of 2011 negotiation there is a number of units sold. Those are multiplied times royalties. I've broken them into what's called a Tier 1 and Tier 2 section. And the royalty for the Tier 1 section is $20 a unit. The royalty for the Tier 2 unit, you can see over there on the right, is $5.00 a unit. And then, that is multiplied out and added up on the far right-hand column for the total royalty due year by year for the LMU section and then below that year by year for the VPOD's.

And at the end on the bottom right-hand corner, you can see the total for all the time periods for all of the 466,000 units is $2.975 million. And if you do the

math to divide that, you will see the average royalty per unit here is $6.38. That's the bottom right-hand corner number. Kind of hard to read, but I can see it, $6.38.
Q All right, sir. Now, taking a step back before we work through the summary that we have here, can you tell us how you started on this process of analyzing the hypothetical negotiation?
A Well, like I was saying earlier, the law tells me how I'm supposed to perform this analysis. And it should be this hypothetical negotiation as of April 2011. In fact, there was no negotiation at all. What happened is CalAmp has gone and made its products. There wasn't a negotiation. And so we are here today to say, how would that negotiation have gone if before CalAmp made and sold this product there had been this negotiation.

And then, in the process of doing that, I'm looking at if we're going to come to a conclusion on what the value is, what are the advantages of the patent? What do the patents do for you? Do customers want that? And do we see evidence that customers are demanding these kinds of functionalities and features? What have other people paid for this?

That's the kind of information that I want to see,

'cause I want to see the evidence. I want to see information that tells me I'm basing my conclusion on something reasonable and not making something up. So I want to see indications of value. I want to see testimony, like I just saw from Mr. Hall, saying when they saw evidence that customers wanted to access the data bus then they said the 2600's not going to work. We're going to need to develop the 3000.

So, I see CalAmp has a policy of developing products in response to customer needs. I see that it makes sense that customers are able to stock fewer items if they have something that is compatible with lots of different kinds of vehicles.

You don't have to have a whole series of different LMUs to talk to all different kinds of vehicles through different data bus access points or means of communicating through the data bus to the data bus.

So I see indications of value there, but I wanted to look at deposition testimony. I wanted to look at the patents. I wanted to look at industry information. I wanted to see the license agreements, you know, that evidence, that information that I could use in coming to my conclusions.
Q And as part of your hypothetical negotiation construct, do you generally consider the arguments that

you would expect both sides to make based on the experience you have in negotiating licenses?
A Yes. Like I said, I really want to put myself into that negotiating room and see what each side would be talking about in a license agreement negotiation.

Like I was saying earlier, there are a couple differences here in this hypothetical negotiation with Omega and CalAmp compared to, for example, Omega's licenses that it has with other companies like Audiovox, ADS, Fortin, Numerex, DEI.

There are differences between those so I want to understand how would those negotiations go and how do those compare to this hypothetical negotiation that I'm trying to analyze. So I definitely would consider those arguments that both sides would be making in that negotiation process.
Q Now, you said that there are a couple of differences. Can you explain to the jury what some of those differences are between a real-world negotiation and what you would expect from the hypothetical negotiation?
A Sure. Well, the biggest one by far is what people in my field call known validity and infringement. Like I was saying earlier, my whole analysis only applies when you know that there is validity and

infringement. If there's no validity or no infringement, my analysis is out the window, because then there's no -- CalAmp doesn't owe any money.

But if there is, now we're in a special world. We're in a world in which at that negotiating table it's like both sides are sitting down and CalAmp comes in and says, we don't think your patents are valid and infringed. So just so you know, we're not going to pay full value right off the top. We want a discount. And that's actually what has happened, in fact, in the negotiating history that Omega has had.

In one of the first licensing agreements that Omega had with Trilogix, Trilogix said, we're not going to pay $10. We don't know if your patents are valid and infringed. We want a discount for that. I'm not going to pay you full value for something that might be valid and infringed, and I think I have good arguments for why it's not. And Omega said, well, that's a good point. I think they're valid and infringed, but you have a counter-argument, so I'll cut the rate down to five bucks.

And, in fact, that's the same kind of experience that happens frequently, as I understand it, with Omega. They talk to licensees. Licensees say we have doubts about the validity and infringement. And, in fact, I

even understand in this litigation CalAmp is making those arguments. We don't think they're valid or infringed.

But for my analysis, it's a special world in which both sides are sitting down. And then at the beginning someone comes in and says, I want you to both understand these patents are valid and infringed. You're not talking about a negotiation for maybe, probably, hopefully valid and infringed. These ones you know. And if you're talking about the value of a known valid and infringed patent, that is higher than the value of a maybe, probably, hopefully infringed patent.

Q I notice on your summary, it goes through February 11, 2016. Why is that?

A Well, that's the last information I got on sales. So we have sales through February 11 of 2016. It looks like I can see, you know, there are some additional sales that probably have happened, maybe a couple thousand units, something like that, in the last week or so. I would update it if I had new information, but this is through that date. So CalAmp ran a recent run on its financial systems and found out the number of sales, so that's where these unit sales are coming from is from CalAmp's financial records.

Q And are the LMU-3050s included amongst the count of

3030s?

A Yes. I think as Mr. Hall was saying, that's a re-brand, I think, for foreign markets, but they fall into the 3030, so this is the whole universe.

Q All right. Now, can you explain the main pieces of information that you used as you set up and worked through your hypothetical negotiation?

A Well, like I was saying earlier, I looked at the patents. I certainly wanted to understand what those were about. I looked at market information telling me about what the market cares about, the importance of things like accessing the data bus, the additional information that's available if you access the data bus that you can't get through other sources or it would be very difficult to get through other sources, ease of installation, lower costs, more reliable information.

I looked at the license agreements showing what people have paid and what Omega has been willing to receive, for example, what CalAmp has paid and been willing to receive as part of its license negotiations. I looked at deposition testimony like Mr. Hall's testimony we heard today. I looked at information about the law and what the law requires, those kinds of pieces of information.

Q All right, sir.

MR. SANTURRI: Your Honor, I'm about to start moving through some of the exhibits. I don't know if this is a good stopping point.

THE COURT: This is a very good stopping point. It's about 3:00. We'll be in recess until 3:15. Thank you.

(Jury exits.)

Thank you. We're in recess until 3:15.

(Recess from 3:00 p.m. to 3:20 p.m.)

All right. If we can have our jury, please.

(Jury present.)

The record should reflect the jury has returned, and we'll continue with direct examination.

MR. SANTURRI: Thank you, Your Honor.

BY MR. SANTURRI:

Q All right, sir. I think we had worked our way through the construct, and we're just talking about licenses. Were there any licenses that you want to discuss with the jury that were sort of representative or a focal point for your analysis?

A Sure. But also on the break, I was thinking there was a question asked of me about my compensation or my firm's compensation at the beginning and I described how I am paid a salary, and that's true. I am also paid a bonus. And just in the interest of completeness and

trying to be -- you know, give a full and complete answer, as my oath required, I think that if I work more and my company's more successful then I probably would have a higher bonus, but in any event, I just want to be as precise and as complete and accurate as I can.

So now to answer your question, I did look at the Numerex agreement, and I thought that the Numerex agreement was a good base for analyzing the reasonable royalty in this situation.

Q All right. Let me pull that up for you, Plaintiff's 99, which is in evidence. And what was the royalty under the Numerex agreement?

A Well, it's in Schedule B, which is towards the back. And what it says, if you look a little higher on the page there -- well, actually, I guess right there, it says -- royalty in Section 3-A, it says the royalty for any licensed tracking unit without any data bus functionality as defined in the first category of licensed products is $2.00. And in B, is says the royalty for any licensed tracking unit with the limited data bus functionality as defined in the second category of licensed products is $5.00.

What I see here is if you're using the data bus, $5.00. If you're looking at technology that is tracker, but not data bus it's $2.00. And so that was to me,

like I said, a good starting point given that the Numerex agreement is pretty typical, I found the license agreements that Omega entered into for the intellectual property for the patents in this case.

Q Do you know whether the Numerex agreement covers the patents at issue in this case?

A It does. It's in Schedule A. And the first page of Schedule -- well, this is actually the second page of Schedule A that you're looking at right here. If you could go up just a little bit, you can see the title of this. This Schedule A continues. This is page 2. This is the licensed data bus patents are as follows, and then it goes down this list.

And you will see that all four of the patents in this case -- the '876 patent, the '885 patent, the '275 patent, and the '270 patents -- are all -- I'm sorry -- I think I misspoke. '727, you can see at the bottom of the page, sort of there.

Q Actually, sir, you can mark on that screen if you want to be able to mark --

A With my finger?

Q Yeah.

A Okay. So right here, I see the '727 patent. Right below that is the application publication of what ultimately became the '270 patent. The '885 patent and

the '876 patent are next to my not so impressive scribble marks. So here, I can see all four of the patents in suit in this case are listed here in the data bus patent list. The previous page has the patents that are the tracker patents that would call for the $2.00 royalty. But these are the ones that call for the $5.00 royalty per what's on the next page -- or two pages later, which is Schedule B that lays out those $2.00 and $5.00 royalty rates.

Q Now, earlier you said that you had a two-tiered structure where you had a higher unit -- or a higher royalty for the first tier and then a lower one for the second. Why is that different from Numerex?

A Well, if you were to apply the Numerex agreement at $2.00 and $5.00, I think the Numerex agreement actually has a minimum royalty amount due. And there are some royalty agreements that Omega has where it gets a premium. It gets some amount over the base $2.00, $5.00 rates. That could be, like I said, in the form of a minimum.

And, for example, in the Mid City agreement, there's an agreement for the first 5,000 units the royalty is $20 a unit, and then it drops to $5.00 after that.

In the Cimble agreement, the royalty is $10 at first, and then it falls and then eventually ends up at

$5.00 a unit.

The DEI agreement has a premium in it as well. So I can see in certain situations, there's a premium on top of the 5 and 2 base rates. And so, as I'm looking at that trying to understand what's going on with that premium, I'm looking at situations that I think would justify a premium.

And in particular, what I found was in the DEI agreement, that was a special one because, like I said, the normal agreements, you have this question about validity and infringement. DEI was not like that. DEI was a lot more like the hypothetical agreement with Omega and CalAmp. Because the DEI agreement happened after there had already been a jury finding of validity and infringement by DEI. And, in fact, there had been a finding of willful infringement.

And the court has said, okay, we have past damages in that case of $615,000. The court had said we're going to treble those so -- triple them. So that goes from 615,000 up to 1.845 million, and then there was an award of attorneys fees on top of that. So now you're up in the $3 million range. But there had been a payment on top of that as a premium up from about 3 million to about 5 million.

And so what I saw there was when you have this

situation where you have known validity and infringement, the question mark is now gone. There's a premium in this case of about $2 million. And I saw that, like I said, in Mid City and Cimble. These other agreements have other premiums as well. So I said I think that in this situation there should be a premium, too.

So first it's just a theoretical idea of when you have a license for a known valid and infringed patent, that's worth more than a license for probably maybe valid and infringed, but we don't know for sure.

So, to me, I was looking for what I thought was a reasonable amount of a premium. Now if you -- well, probably I can show it to you in my calculations, but the amount of the premium, although DEI has premium of about $2 million, the premium I calculated is about $642,000. That's the premium I applied. Compared to just a base $5.00 agreement, there's an extra 642,000 to account for this known valid and infringed, and other differences as well, because that's not even the only difference.

Q And in the DEI case, was the same '885 patent also at issue as here?

A That's correct. The '885 patent was part of the DEI agreement. I think that was reached in 2007.

Q Now, are there some similarities that you see amongst Omega's licenses that are informative of your analysis?

A Yes. I looked and I saw that, for example, in the Cimble agreement and the Mid City agreement, the ones I was talking about earlier, talking about the same patents that are in those agreements, there are some situations where there are these premiums, like I was talking about, so I saw consistency in the licensing practices. And really, that's kind of a necessity for Omega.

Because Omega has these agreements with big companies like Audiovox. And if Audio finds out that they're giving out better deals to somebody else, Audiovox is going to be concerned about that. Audiovox is out there in the marketplace saying we see CalAmp beating us in the marketplace. We have a concern about that, Omega.

And so having a variety of different ingredients is something that I understand Omega originally had some more complexity to its agreements. And the agreements would say it's a $5.00 base rate, but you pay a little bit more if you do some other things.

Ultimately, Omega said that's too challenging to manage all that. We've got to stick to something

simple. It's got to be something where everybody knows it's all above board, we're just playing with everybody knowing what's going on here. We're not trying to hide anything. Let's stick to a simple agreement, $5.00.

So there are some situations, like I said, with premiums. But these more complex manners of adding on, things like that, it's very challenging to manage that in a license and royalty management program.

Q I think you alluded to what's referred to as a Most Favored Nations clause. Can you explain to the jury what that is?

A Yes. The Most Favored Nations clause takes that idea I was talking about with Audiovox, and makes it a contractual obligation in reality. And what that says is Most Favored Nations means you get the same terms as whoever is the most favored. It's like a price match program. And so, there are some very big licensees of Omega that have this. That includes ADS, Audiovox, Fortin, DEI and Numerex.

Together, out of the approximately $5 million a year that Omega gets, that's 99 percent of the dollars that Omega gets is from those five entities. And all of those have a term that says if anybody gets a better agreement than our $5.00 rate or whatever our rate is, we get a price match down to that.

So if Omega's making $5 million a year and it agrees to cut its royalty rate from $5.00 down to $4.00, it just gave up a million dollars a year. As a result, it's a very expensive idea. The amount that they're giving up, a million dollars a year, if you just drop it down from five bucks to four bucks, it's a very strong -- well, first of all, it's helpful in negotiating, because you can say, look, we're all just being honest here. You can understand what I've got going on with all these other license agreements. Licensees say, okay, well, I see you're charging that. A competitor's getting it -- or paying it. That seems pretty compelling. But just being above board and open and honest about that is a real advantage, because it just makes negotiating a lot easier. But there definitely is a strong impact.

I was talking to Mr. Flick about how Audiovox and others are very interested in the outcome of this litigation, because if there is a decision that CalAmp gets less, that means they all have to pay less in the future. So for that reason, I don't think that Omega would ever agree to anything under $5.00, if they could avoid it.

Q Is there a reason licensees like a Most Favored Nations clause?

A Well, yes. Like I said earlier, you have these licensees who say, okay, I'll sign up for whatever the minimum is. Whatever the minimum is you charge of anybody else, that's the price I want and that's the price everybody gets is the minimum, anybody whose on this Most Favored Nations clause, which is 99 percent of the dollars.

So, yeah, there's a big advantage. And it just makes the whole negotiating process a lot easier rather than to haggle. It's kind of like -- it's a little bit like Carmax, the car buying program. We just have one price. We're not going to haggle, we're not going to go through all this, it's a simple thing. And it just makes the whole negotiating process a lot easier.

Q Are you familiar with licensing provisions in some of Omega's licenses about assignment of improvements?

A Yes. I think I was talking about some of the other big licensees. There is a clause in those agreements. And the Numerex agreement has this as well. So Numerex, ADS, DEI, Fortin, they all have this provision that says that if they develop improvements, those improvements are assigned to Omega.

So then, Omega gets to use those improvements that have been assigned to them by these others who are developing the technology. And Omega now is constantly

getting new technology, new developments that it can use in its licensing programs to negotiate with others down the line. So now it can say, here are more reasons that others would want to license this package still potentially at $5.00, but, nevertheless, more reasons for others to want to get a license.

So that's a really valuable thing for Omega. Because Omega now, like I said, is getting more and more life to its patent portfolio, going out into the future, more technology, it's adding it. And so, now these licensees don't have to worry about someone else coming at them. It's just all in one package that they get, too.

That's part of the normal license agreement, like I said, that Omega has with ADS and these others, DEI, Fortin, and Numerex, but that's not part of the hypothetical negotiation. The hypothetical negotiation is just a bare patent license. I'm not allowed to bring in -- well, and then also I want CalAmp to agree that anything it does, it's going to assign those patents. That's not part of the hypothetical negotiation. It's a special thing for litigation purposes to help us come to the damages for the use of these patents, but you don't add in these other terms.

So as a result, that's value that Omega would not

get in the hypothetical negotiation. So it's entitled to a premium, then, because that's what it normally gets. It normally gets five bucks and it gets patents and other improvements in the future. Here, it doesn't get those. So it would say, I want more money, then, if that's going to be something I have to give up as my normal assignment back provision that I normally have.

Q And I've pulled up Section 5-C in the Numerex agreement, which is Plaintiff's 99. Is this a section you were talking about on improvements?

A Yes. And particularly, I can see there in that third line, "All the data bus related improvements --" well, I guess my yellow crossed it out, but "-- shall thereinafter become the property of licensor."

So, like I said, they're now property in the normal license agreements of Omega. And that's a really good thing to be working with companies who are out there developing, and now Omega's going to get that. But like I said, that's not part of the hypothetical negotiation.

Q All right. Now, having gone through the evidence that you looked at and the information you considered, when they sit down at the table in the hypothetical negotiation, what are the first arguments you hear from Omega in terms of why it's entitled to the royalty that you have identified?

A Well, like I was saying, I think if you imagine that room with both sides sitting there and they're both told at the beginning, all right, hash it out, get to a good fair number and, oh, by the way, this is valid and infringed, so it's not like your normal negotiation, I think the way those things normally start off, from what I've seen, is there is some demonstration from both sides about whether this technology is valuable.

So people will be looking at industry information and saying, do we think that people want to have access to the data bus? And like Mr. Hall and others have testified, yes, people want access to the data bus. People want multi-vehicle installation ease, less cost.

I think Mr. Hall testified that the cost of installation can sometimes exceed the cost of the unit. So the idea of saying I can pay five bucks to save all of that, that's a very helpful thing to be able to do is to bring that technology in.

Now, there are other arguments as well, like I said, when you're talking about the value. But there would be a good amount of that at the beginning where both sides would be talking about whether the technology was valuable or not. And Omega, in particular, would say let's see what we can show for evidence out there that's talking about the value.

Then, I think it would really go to one of the big parts that supports that is the license agreements. Omega would probably start laying out the license agreements saying, let me tell you about Audiovox, ADS, Fortin, DEI. I get a lot of money from these companies who are paying real money. They're selling products, competing with you in the marketplace, and they pay me five bucks a unit. So, it's entirely reasonable that you should be paying me five bucks a unit or more if you're not giving me all the benefits that I normally get.

So you talked to me about license agreements. You talked about some of these differences. Because, like I said, the license agreements, when you've got those Most Favored Nations clauses, in particular, they're a strong piece of information that's part of a negotiation, especially when you say if Omega was to go something lower they'd be giving up millions of dollars, that's just -- it's just not very reasonable to expect that you'd go below that. So those are some of the terms.

I think, like I said, you'd have this discussion about the uniqueness of the known validity and infringement, the fact that you don't get the assignment back provision. You'd get these kinds of arguments. CalAmp would have its arguments, too. They would say

there are reasons we think we shouldn't have to pay as much.

Q Well, explain what's CalAmp's best argument. Why doesn't it have to pay as much?

A Well, CalAmp would say we don't think we're going to make enough money on these things to be able to pay you $5.00 or, in my case, $6.38 average license. We don't think we make enough money. Our gross profit is only 15 or $17. We just don't think we can afford that.

And so, I think Omega would say, well, I see, yeah, you've got a gross profit there and you've probably got some overhead and administrative expenses. There probably isn't that much profit that you've got left over, I would acknowledge that. I do notice that you're paying B&B $7.17 and that's part of the reason that your gross profit is at 20 -- or I think it's $15 to $17 for the LMU-3000.

And they'd say, well, maybe what you need to do, if you need to pay us a royalty of $6.38 on average is take your 80-something dollar product price and raise it up $6.00. And if you raise it $6.00 then you would be able to compete with the others that are out there in the marketplace that are paying us, and then everything's fair, you're paying us.

So, I know you're about to launch this product and,

you know, I'd be interested in seeing your financials and show me why it is you don't think you can afford it, but let's talk about it. And one clear solution is raise your price from 80-something dollars to 90 bucks, and then you'll be able to afford it, and pay us that difference.

Q We just heard testimony from Mr. Hall indicating that CalAmp had expectations that the profit margin would increase. Does that impact your analysis?

A Well, yes. Obviously, if CalAmp is coming into it thinking they may not make money up front but over time they would make more money, then they would be more comfortable paying a royalty in the neighborhood of $6.38, like my average royalty that I've estimated here. So that's what would happen, though. If you're sitting down in April of 2011, you've got CalAmp thinking about how much money it's going to make in the short term and in the longer term. You've got Omega saying, here's what we're thinking. That's what would be happening in that room.

Q Now, you said that under the hypothetical negotiation, CalAmp would be negotiating for the four patents in suit. Does that have any impact on your calculation?

A Well, yes. I think that's another argument CalAmp

would probably bring up. They'd say, I see these other license agreements, and they cover more than just our four patents here. They have other patents included in there. I think that Omega would say, that's true. But if you look at these license agreements, what they say is if you infringe any one or more of these patents, you owe us five bucks.

And so as a result, that's what those license agreements say is the rate for any one, two, three, four, or even more patents is the same rate. So here, they'd say that's consistent with our license terms. The amount for these four patents would still be the same number.

Q Yesterday, we heard testimony that CalAmp hadn't found non-infringing alternatives. Does that impact your analysis at all?

A Yes. That's another thing that would be considered. Because, like I said, the key thing when valuing intellectual property is what does that intellectual property do for you. And if there's another way to build a product and it's still going to get you all the benefits -- you could still access the data bus, you'd still have easy installation, multi-vehicle compatibility, and you wouldn't go through the patents to do that, then that would say, okay, then whatever the

cost is to do that other thing, if it's small, then the patents aren't worth that much. And, in fact, I understand that CalAmp, like a lot of users of intellectual property, has looked and said is there a way for us to do this without going through these patents? Because if so, let's just switch over there. We don't need to do this or we're not going to be exposed in this lawsuit. We're just going to have a situation or we'll offer to pay them not very much, because it's easy to get around these patents.

But CalAmp tried. CalAmp couldn't find a way around the patents. And as a result, they're still left here in this situation using the intellectual property, didn't have a license, so now here we are with the question of what the license should be for all that past usage over the last four and a half years or so of these patents.

MR. SANTURRI: Madam Clerk, if I could have the Elmo.

BY MR. SANTURRI:

Q All right, sir. I come back to the summary of your royalties. If you can walk us through just briefly what we have here so that we make sure we understand all the information that's presented by this chart.

A Okay. So starting on the left side, like I was

saying, the top section, the LMU-3000 and 3030, below that, the VPOD and VPOD2. So just looking at the LMU-3000 and 3030 section, you can see you have a year ended March 31st. That's because the agreement was signed in April of 2011. And so you've got units, then, for each year.

For year one, the LMU-3000 and 3030 units were 2,805. In this case, those are all 3000s, because the 3030 wasn't launched until 2013. And because that's less than 10,000 units in the first year, all of those get the $20 per unit royalty. So if you multiply 2,805 times 20, that gives you $56,100. And then there are no -- if you further follow it over to the right, there are no units at the $5.00 rate. So the total royalties for the year ended March 31, 2012 would be $56,000.

Moving now to the next year, you have 32,000 total units. So the first 10,000 would be at the $20 rate, and the other 22,000 would be at the $5.00, and then that multiplies out to be worth almost $311,000.

In 2014 and 2015, you can see the number of units is increasing up to 115,000 or 180,000. So looking at 2015, for example, 180,000 units you get the first 10,000 of those at $20 and then the next ones, that remaining 170,000 units are at $5.00 a unit, which adds up to a little over a million dollars of royalties for

the year 2015.

And so that slot's in about the same level in terms of size as some of the bigger licensees that Omega has. It's a little smaller than some, but it's in the range of DSI and ADS, Audiovox, and Fortin.

Q And then, I notice that for the VPOD and VPOD2, those are all at the $5.00?

A Well, that's right, because we've already used up all the 10,000 units per year with the LMU-3000 and 3030, so all of those are just at the $5.00 rate in that lower section below. So like I said, if you do the math all the way through, all the ones above, you get 10,000 a year at the $20 rate. All the rest are at $5.00. And then you multiply that through times the volumes.

For the LMU-3000 and 3030, that's 437,000 units which adds up to $2.8 million. And then for the VPOD's, that's 28,000 units and change. So total units is 466,000 -- and I'm looking at the bottom left-hand corner. Actually, I can put a little circle around that. Well, not really a circle and not around it, but it's -- there you go, I'll try it again. 466,000 units. And if you multiply those all the way through, the total amount is 2.975 million. And the math on that works out to $6.38.

If you took the 466,000 units and you multiplied

that just by the $5.00 level, that would give you -- times 5 would give you 2.33 million. So that's what I was saying earlier. I said if you calculated the difference between 275 and 2.33, the difference is a $642,000 premium.

Q All right, sir. And do you have an opinion as to whether pre-judgment interest applies in this case?

A I understand that to be a question for the Court. But I understand that in situations in which there are monies that have been -- that were owed pertaining to the past, there should be some interest that's applied to that to take it up to the amount that will be payable today.

Q All right. And the chart that we have here on the Elmo, does this accurately reflect your opinions as to the reasonable royalty in this case?

A Yes.

MR. SANTURRI: Your Honor, I'd move for admission of Mr. Tregillis's summary as Plaintiff's 164.

MR. KAUTH: No objection, Your Honor.

THE COURT: It is admitted.

MR. SANTURRI: And I don't have any further questions, Your Honor.

THE COURT: All right. Thank you very much. Cross examination.

CROSS EXAMINATION

BY MR. KAUTH:

Q Good afternoon, Mr. Tregillis.

A Hi, Mr. -- is it Kauth? Is that how you pronounce it?

Q It is Kauth, good memory.

MR. CHONG: Madam Clerk, may I have --

(Deputy clerk assists.)

BY MR. KAUTH:

Q When you started your testimony, you mentioned that you had experience in a similar area, and I believe you mentioned wireless. Can you expand a little bit on that?

A Sure. I have worked on matters involving wireless technology, licensing of that, looking at reasonable royalties also of wireless technology.

Q Was that wireless communication devices or what type of wireless technology?

A Yes. It is wireless communications devices like Smartphones. I have also looked at what's called a controller, which is a -- or a gateway, which is a device that controls when you go to, for example, a Starbucks and they have a router, there are devices that manage that traffic and implement protocols and controls around that.

Q You also mentioned that -- I think of all the

licensees that Omega had, you had a top five list. And I think I caught Audiovox, ADS, Fortin in there, are those correct?

A Those are all in there, and DEI and Numerex.

Q And I believe you said those were 95 percent of the volume of the license sales?

A Ninety-nine percent, I think it is, for 2014.

Q And so all the other licensees combined make up the remaining one percent?

A Yes.

Q So is it fair to say those are all pretty low volume licensees?

A Yes.

Q And if we look at the not top five, do you know how many of those licenses were entered as a result of litigation?

A I haven't done that analysis. I don't know. I might be able to go back and look at them, but I don't know off the top of my head.

Q Do you think it's the majority of them?

A I think that there was some discussion about litigation in the lion's share of those.

Q And in your experience do some companies decide to enter a license when it's cheaper to license than to pay for the cost of litigation?

A Yes. That's something I see go both ways. I've seen that licensees say, if I can pay a fee rather than having to pay lawyers, that's good, especially if I think it's going to be less than paying the lawyers. I also see it go the other way where I see plaintiffs who say, if I can get a check today instead of having to pay lawyers for years, I'll take the check today.

Q You mentioned a couple of the specific agreements, I think, that gave you guidance. Mid City Engineering, I think you mentioned, had a higher initial royalty rate, and then it went down to the $5.00 per unit; is that correct?

A That's right. It starts at 20 and it drops to five after 5,000 units per year, although I don't think they've ever gotten into the five zone. They've only stayed in the 20 zone.

Q So they're a very low volume seller?

A Well, they'd be part of that one percent we were talking about and -- which would be less than 5,000 units a year.

Q And then, I believe you mentioned Cimble Corporation was another licensee that had a higher initial rate and then a lower rate?

A That's exactly right. Now they started out at 10, but they never kicked over the volume level to get into

the lower level of royalties.

Q And was there a license set up so it was $10 per unit for initial volume, then zero dollars per unit for a certain volume, and then five dollars a unit for the remaining volume?

A That's right. So it starts at 10 for the first 10,000, and then no royalty for the next 10,000, and then five bucks a unit for all the ones after that. They never got out of the 10 into the free units.

Q So if they ever managed to sell 20,000 units the average royalty would have been $5.00 per unit?

A Exactly.

Q On your list here, Accele Electronics is the first one listed. Do you know what licensed products they sell?

A I don't recall off the top of my head.

Q Do you know what the average wholesale price is of their products?

A No, I don't, not as I sit here.

Q If you took the five dollar per unit royalty and tried to calculate a percentage of what the percent royalty would be based on their price, would you be able to do that?

A Given that I don't know their price, no, I wouldn't be able to do that math.

Q For the remaining licensees, do you know the cost of any of their products?
A I understand that Audiovox is comparable to CalAmp from my discussions with Mr. Flick of Omega.
Q And do you know what type of products Audiovox sells that's licensed under the Omega patents?
A My general understanding is competitive products, such as trackers, things like that.
Q And is that the only one you have some information on the pricing for?
A I think that I had some information on Enfora having products that were priced at approximately the same level as well. Those are the only ones I can recall as I sit here.
Q Do you know if a large majority of these licensees sell alarm products?
A I understand that some sell products that have alarm technology included in them.
Q And how about remote start technology?
A That's also my understanding.
Q And is your understanding that those two categories of products are more expensive than the accused devices in this case?
A I haven't done a full analysis to be able to say that.

Q In your report -- let's me step back a step. You did prepare a report with your opinion in this case, correct?
A That's right. I prepared two. I prepared my initial report and then a supplemental report when I got some more information.
Q And I believe you mentioned in your report that, according to a 2012 report, that there were certain reasons people like to use telematics devices; do you recall that?
A Yes.
Q And were those improved driver behavior, route productivity, and I think monitoring fuel efficiency?
A Yes. I remember those being some of the reasons. Though, if you're a fleet manager, which would be a typical buyer, and you have the ability -- like if you have Fed Ex or UPS and you can manage and monitor your drivers and see if there are ways to keep them to keep their fuel efficiency high and fuel cost down, fewer accidents, things like that, and just letting your driver squad know that they're being monitored, that creates better behavior.
Q Do you know if you need a connection to the vehicle data bus to be able to provide those features?
A Not necessarily. There are some pieces of

information that are, as I understand it, only available by accessing the data bus. But things like the route, you could access that with GPS. Things like fast acceleration, maybe with GPS depending on the accuracy. Fast deceleration, maybe yes, maybe no. Seat belts, I don't know if you could do that. But some things you might be able to do are hard wiring to sensors instead of accessing the data bus, but that's where you get into the question of whether it gets to be expensive rather than just having something you can plug into the OBD-II port.
Q Are you familiar with the CalAmp products, the LMU-2000 or the LMU-2600?
A I haven't seen them, but I'm aware through my work in this case of their existence and some features about them.
Q And both of those products have a GPS unit so they could provide tracking services, correct?
A Right.
Q And they both have accelerometers so they could monitor fast acceleration or fast deceleration to monitor driver behavior?
A That's my general understanding. I think there was testimony earlier about the multiple layers. And really what you've got with the 3000 was the OBD-II layer on

top of the 2000 or 2600 layer, which brings some of that functionality without having the OBD-II functionality.
Q And you mentioned, I believe, ease of installation was another consideration for the patented features; is that correct?
A Yes.
Q And are you familiar that the CalAmp LMU-2000 has the same form factor and, in fact, plugs into the OBD-II port on the vehicle?
A That is my understanding. I understand that it doesn't access the data bus. But in terms of a plug-in and form factor, I do understand it to be similar to the 3000 and 3030.
Q And then in your report, I believe you also mentioned the top four companies in telematics. Do you recall who those were?
A Not off the top of my head, although I could go back to my report, if you would like me to.
Q Do you remember if Trimble was one of them?
A That is one that I listed, yes.
Q And do you know if they're an Omega licensee?
A I don't believe so.
Q Do you know if any of the remaining three of the top four are Omega licensees?
A My recollection is of the ones that I listed, they

are not licensees.
Q As part of your investigation into licenses in this area, did you look outside Omega's license and to other licenses in the GPS or vehicle data bus space?
A I looked at CalAmp's licenses, but I did not look at other licenses that didn't involve either CalAmp or Omega in some way.
Q Are you aware of a company called Hughes Telematics?
A I'm aware of Hughes. And actually, one of the matters I described earlier that I had experience on related to Hughes and its work with transceivers -- transmitters and receivers, but I don't know Hughes Telematics.
Q So you didn't consider their licensing for their telematics portfolio?
A That's correct.
Q Did you look at or are you familiar with any competitors with CalAmp for the particular devices at issue in this case, the LMU-3000 and 3030?
A I saw testimony from CalAmp that they believe they were the market leader and that some of the competitors -- I think Mr. Hall testified to this -- included Danlaw, Enfora, Xirgo, those are some of the runs I can recall as I sit here.
Q Do you know if Xirgo is an Omega licensee?

A I think that Xirgo is part of the Numerex agreement for some products, but I don't think Xirgo is a direct licensee, if that's what you're asking. That is to say, Numerex sells products that are Xirgo. But like I said, Xirgo is not a direct licensee.
Q How about Danlaw, do you know if they're a licensee?
A Not to my knowledge. I haven't seen them as a licensee.
Q And you mentioned Enfora. I believe they're know Enfora Novatel. Does that ring a bell?
A I understand Enfora has been renamed under Novatel.
Q And do you know if they have licenses to Omega's data bus portfolio?
A I believe there was an agreement between Enfora. I don't know -- well, let me see here. I think that's only for a tracker patent is my recollection, so not data bus.
Q You mentioned in your --
A And even that -- I'm not sure that it qualifies as a license agreement, but there is an agreement between what used to be Enfora and Omega. Sorry for cutting you off there.
Q No worries.
In your initial report, I believe there was a fifth patent you evaluated that's no longer at issue in this

case. Does that affect your analysis at all now that it's down to four patents instead of five?
A A little bit. That is, I previously did an analysis in which this other patent, the '989 patent, would potentially be found to be valid and infringed, and that's a tracker patent. And as a result, given that, for example, in the Numerex agreement that shows up in the tracker group, not in the data bus group, I did a calculation that pertained to whether one would apply a $2.00 royalty. And if that would be the case, then the royalty wouldn't be 2.9 million, it would be two-fifths of that, which is 1.19 million. Given that the remaining patents are all listed in the Numerex agreement and other agreements as being part of the data bus group, I didn't talk about the tracker calculation that I performed earlier, given the '989 patent is no longer in this case.
Q But it didn't effect your end result number, did it?
A No. At the same time that that -- that I did the calculations reflecting the removal of the '989 patent, I also got updated sales information. So when I got updated sales information, it increased the number at the same time that I took the '989 out. So one might look at it and say they were related, but, no, they're not related. The exclusion of '989 didn't change the

number.
Q You mentioned in your report something about the GPS technology, and I think you were saying that vehicle bus speed might be a preferable way to get speed than getting speed from GPS. Do you recall addressing that in your report?
A I think I said that in my report, and I -- I have my own experience in that. I ride bikes a lot, and I know that my Garmin device reads GPS. And whenever I take certain turns near my house it says that I go 150 miles an hour and that's not true, at least I don't think it's true. And so I know from my own experience sometimes GPS may not give you perfect speed readings. But like I said, I don't claim to be an expert in speed readings and GPS functionality, so --
Q Where did you obtain the technical information about how the GPS speed reading would work?
A I spoke with Mr. McAlexander some about the technology and how it would function. I don't recall specifically discussing the details about how reading GPS technology exactly works. I think there was some testimony this morning about how he understood that one could with the 3000, for example, get a reading from a GPS sensor, as well as from the data bus, so I understand those to be pieces of collected information.

But like I said, I didn't get into the details of exactly how one GPS sensor, for example, works.
Q I think in your report you mentioned that it took multiple measurements along the way to calculate speed. Do you recall that?
A That's my general understanding.
Q Would it change your analysis at all if you learned that the CalAmp devices actually use a different method on the GPS to calculate speed?
A It would depend on what that new information is. If you were to tell me that I'm wrong and GPS technology is just as accurate or better than data bus technology, then I would tell you that the piece that pertains to data bus being a better way of reading speed, I'd tell you that that doesn't sound like that's the case anymore, but I don't know. You'd have to provide me the hypothetical information you're talking about and maybe I'd take a look at it then.
Q So if I told you that the CalAmp devices use a technology called doppler shift and it checks the differences in satellites instead of taking multiple readings and can actually provide speed readings more quickly and more accurately than the vehicle bus speed, that would be something you would consider?
A Potentially. I'm open to it, if you want to give

it to me.
Q I would need to bring in one of my engineers to do that. So you mentioned in your report -- I think you went through something called the Georgia-Pacific factors. Is that pretty standard in your analysis?
A Yes, it is. I think I was describing earlier how in calculating damages in patent litigations there's law that tells us the parameters and some of the things we're supposed to do, and the Georgia-Pacific factors are -- I won't say every time, but close to every time you see a patent damages analysis it goes through the Georgia-Pacific Factors.
Q One of the factors you addressed was Factor 3. Is it fair to say that goes to a comparison of similar licenses?
A I think that's licensing policies, Factors 1 and 2. Factor 1 is looking at what Omega would license. Factor 2 would be CalAmp's licenses. And Factor 3 would be licensing policies.
Q So if CalAmp had licenses on this or similar technology, that would be something you would consider?
A That would be factor two, right.
Q And I know you mentioned earlier, I think, $7.17 for the B&B license that CalAmp entered into; is that correct?

A Yes. I made reference to that.
Q And do you have understanding that the 17-cent portion was what B&B pays to the Bosch company for their CAN license on the CAN bus?
A Yes, that's my understanding.
Q And do you have an understanding that that license has gone down to $5.00?
A That's -- I think Mr. Chen testified to that, that some time in the last year or two the 7.17 has gone to 5.00, and it's a flat fee now.
Q And so, CalAmp licenses from B&B on the LMU-3030. Are you aware they license from a company called Innova on the LMU -- I'm sorry, I have that backwards -- on the LMU-3030 and the 3000 is with B&B?
A Right, that's my understanding. I think there was testimony from Mr. Hall as well today that there's been a modification of the Innova agreement. I think they paid them, "they" -- I don't like too many pronouns -- CalAmp paid to B&B a million and a half dollars and then is in the process of bringing that in-house to CalAmp, as understand it.
Q And do you recall that the per-unit royalty was now, I think, down to $1.50 for a certain term, and then I think it goes away, correct?
A Something like that. I think it drops from $1.50

to $1.00. And then like I said, I saw that testimony that they're in the process of changing that now, and that's all for the 3030.
Q When you're looking at the numbers and seeing $5.00 or $1.50 with the million dollar payment, do you consider --
A Well, it's a million and a half, not a million, but where I come from a half a million's real money.
Q Thank you. A million and a half and the $1.50 and whatever the rest of the scale is on the per unit, do you consider those numbers when looking at what you determine a reasonable royalty would be?
A Sure.
Q And do you consider that even if Omega -- if CalAmp licensed the patents from Omega, they would still need to obtain the technology from someone like B&B or Innova?
A Well, I think there are different ways that technology can get developed, and patents can cover a part of the whole program. So it's frequently the case that you may need a patent and more stuff. Some might do that through internal development or some might get it provided to them by somebody else. But I certainly understand that it's often more than just one patent or a package of patents that you need to commercialize a product.

Q If CalAmp's willing to pay B&B $5.00 per unit for the technology, does that effect your analysis and whether they should pay more or less than $5.00 to Omega for the license of the patent without the technology?
A Not directly. Really, you'd have to take a look at what that $5.00 deal or $7.17 deal when it was originally signed -- which the $7.17 was signed right before the April of 2011 launch, which is right around the same time that the hypothetical negotiation happens. So the fact that later in time there's been a negotiation a couple years later of five bucks, mildly instructive, but you'd really want to know what was going on in that discussion. What did CalAmp get for that 7.17? And how would I compare that with what they're getting in the hypothetical negotiation?
So it's instructive, but you wouldn't just on its face say, well, you paid 7.17 for this so, therefore, that means this is what the Omega patents are worth. Like, you'd have to make a comparison of the values. I think that B&B didn't bring any patents as part of that license. It was really more for other development kind of expenses. I think there were patents that were part of the Bosch agreement, but B&B wasn't a patent license.
Q The 17 cents was for the patents?

A For the Bosch patents related to that CAN bus licensing program.
Q Did you, in your analysis, review a patent license agreement that Omega -- I'm sorry -- that CalAmp had with WiLAN?
A Yes.
Q And do you recall that the royalty rate there, I think, was between .35 and .7 percent?
A I think that's right. I don't remember the details of it. I have it in the schedule here.
Q And I know you said in your background you considered similar technology to include your work on wireless. Would this WiLAN agreement -- I believe that was on wireless communication technology -- did you consider that to be similar technology to the technology at issue in this case?
A I don't have enough information to be able to make that comparison. I don't have access to WiLAN's license agreements or to understand how the market feels about that technology and, really, to make that kind of comparison that's what you need. You need to understand how that negotiation happened and what are WiLAN's licensing policies and what was that relationship, so there's more that's required to really build that out.
Q Were you provided a copy of the WiLAN license

between WiLAN and CalAmp?
A I think I was, yes.
Q That wasn't enough to make that determination?
A No, no. You'd need to know a lot more.
Q Are you aware of any previous -- actual negotiations between Omega and CalAmp regarding licensing of the data bus patents?
A I'm aware that there have been those negotiations. I wasn't in the room. I wasn't involved in the discussions, but I'm aware there have been negotiations about that.
Q Were you aware that Omega offered a license of $3.00 a unit on certain vehicle data bus technology?
MR. SANTURRI: Your Honor, I'm going to object to this. It seems like it violates Rule 408. He's attempting to offer past negotiations as evidence in this case.
THE COURT: All right. Come on up and approach just very quickly, gentlemen.
[Sidebar.]
MR. KAUTH: I can probably make this simpler.
THE COURT: Yeah. Just give me some context.
MR. KAUTH: Plaintiff's Exhibit 49, it's already admitted, so I can just have him look at this.
THE COURT: What portion of 49 will he be

looking at?
MR. KAUTH: There's a license agreement right behind the e-mail, and it's the very last page that I'm interested in.
THE COURT: This? The rates under the $3.00 and whatever, the $5.00?
MR. KAUTH: Correct.
THE COURT: All right. It appears it's in evidence.
MR. SANTURRI: Well, I agree it's in evidence, Your Honor, but it is in evidence for the purposes of describing the back and forth between them, not in an effort to establish liability or damages, which I think is what 408 relates to. So 408 doesn't say you can't use it for any purposes, but to use it for either evidence on damages or liability, that's where it's precluded.
THE COURT: Help me to understand, why wasn't this page just taken out when it was being offered, the e-mail --
MR. SANTURRI: Inadvertently, it was just the complete e-mail and included the entire attachment.
MR. KAUTH: But the witness testified on hypothetical negotiations. I think the actual negotiation is very relevant here.

THE COURT: Well, here's where we get into a bit of a dilemma, I think, and correct me if I'm wrong. The hypothetical negotiation that the witness has been describing is one where validity is established and infringement is established. This negotiation could be that prior context that he described where there could be disputes over whether or not there's validity or whether or not the patent is, in fact, infringed, whether there's prior art, all the other aspects.

MR. KAUTH: This directly rebuts the testimony, though, that Omega never offers licenses for under $5.00, and Mr. Flick testified quite extensively on his licenses and his dealings with CalAmp.

THE COURT: Right.

MR. SANTURRI: And if he wanted to use it for that, he could have tried to do that to cross Mr. Flick, but I don't think it's appropriate to use on our damages expert.

THE COURT: Well, the problem is that the witness testified not that Omega never offers a license for $5.00. He testified to the pros and cons of doing so, and if he went below, his competitors would be aware of this and may insist upon lowering it. This doesn't mean this wouldn't come to fruition for that very reason. So my concern -- I understand your point. The

door has been open a bit and it's here. But under 408, it's correct, it's being used for the purpose of establishing prior negotiations, and that's clearly the dilemma. So it's a dilemma, because it's in this exhibit. I don't have any problem having page 11 of this exhibit removed so it doesn't go back to the jury, because I don't think it should be there to begin with.

MR. KAUTH: Well, I have Mr. Chen who is on this e-mail who can testify about it to talk about his lengthy negotiations with Omega over the years.

THE COURT: You're still getting into a 408 issue, though. You can pose a hypothetical, I think, saying if hypothetically -- well, I'm always reluctant to interject myself too much into this, but --

MR. KAUTH: If I could have asked Mr. Flick about it, I should be able to ask Mr. Chen about it, the other end of the recipient, to show the ongoing negotiations for years between Omega and CalAmp.

THE COURT: Under what theory would you be able to ask Mr. Flick, though, under Rule 408?

MR. KAUTH: Counsel told me I could right now, I mean, just to show the ongoing lengthy negotiations that have been going on since 2009.

MR. SANTURRI: And again, I think that Mr. Chen has already testified that there were ongoing

negotiations between them, and Mr. Flick testified to that, but the numbers that they testified to were not discussed in the testimony of either of those individuals. We specifically excluded it because we didn't believe we could offer it under 408, and we wouldn't expect them to be able to either.

MR. KAUTH: Your Honor, if we go back to the previous draft agreements that were put in by Omega during Mr. Flick's testimony, you will see the same last page among many of those, not the $3.00. I believe those were all $5.00. So it seems prejudicial for the jury to only see the $5.00 ones and not the $3.00 ones.

MR. SANTURRI: I'm fine with taking all of them out. I mean the number -- you know, essentially the number --

THE COURT: Well, here's the issue. No witness -- no live witness has testified to what the dollar amounts were in the ongoing negotiations, just that there was back and forth. So the parties were careful not to have that conversation.

Including the last page was, I think, a tactical mistake. And it may have been for completeness, but, you know, this could have gone back to the jury and they could look at and see it. But Rule 408 is Rule 408. And I don't believe that the -- I

don't believe the door has been opened sufficiently by having that page in there because it could be cured.

If counsel had asked specific numbers, we've always negotiated five dollars, in this case you negotiated five dollars, I think the door is open under 408 'cause they've waived any protection they have under that rule, but the rule is there for a reason.

And if you have a case that tells me that that doesn't apply under these facts, I'm more than happy to read it. But the rule is the rule. The remedy is to remove this last page and to deal with the hypothetical, because we are talking about a hypothetical negotiation.

MR. KAUTH: So since it's not going to the jury yet, we can check the transcript over the weekend and --

THE COURT: Yes.

MR. KAUTH: -- if I plan to try to introduce it with Mr. Chen, I can talk to you beforehand.

THE COURT: Yes. If the number was discussed, if counsel addressed with Mr. Flick or with someone else that your negotiations as to this matter were $5.00, then this, I think, is in fairness open, because the door has been opened as to negotiations.

If they just discussed there were negotiations that was unfruitful, which is what I recall the

testimony to be, and I don't profess to have a perfect memory, then 408 says what it says. And the remedy is to pull these pages out so they don't go back for the jury to see a $5.00 number over and over and over, which would be prejudicial to you. Because right now we're dealing with a hypothetical, and that's where it should remain.

MR. KAUTH: Okay.

THE COURT: All right. So I'll sustain the objection. And rather than highlighting it by doing so in front of the jury, you will just move to your next question.

MR. KAUTH: Okay.

THE COURT: All right.

And if you don't find that information in the transcript about specific dollar amount then, counsel, you will be pulling those pages out.

MR. SANTURRI: Yes, Your Honor.

THE COURT: All right.

MR. KAUTH: Thank you, Your Honor.

MR. SANTURRI: Thank you, Your Honor.

[End sidebar.]

THE COURT: All right. Your next question.

Thank you for your patience.

/////

BY MR. KAUTH:

Q In your testimony earlier today, you mentioned that Omega had what's called a Most Favored Nation clause, I believe?

A Right.

Q And that they would be reluctant to offer a license lower than I believe what's mostly $5.00 for those people, because it would have a chain reaction of lowering all the other licenses. Is that accurate?

A That's the gist of what I was saying, yes.

Q Do you know of any licenses that Omega entered into that didn't have at least a $5.00 per unit royalty?

A There are some examples of agreements for the tracker patents that are at $2.00 or above. There are some lump sum amounts where there's not a per-unit royalty that's identified. It's just a lump sum.

Q For the lump sum agreements, do you believe those were the GM, the Lear, and the Enfora agreements?

A Those are the ones I had in mind.

Q Did you have enough information to calculate what the average per-unit royalty would have been in the GM agreement?

A No, I did not.

Q And how about in the Lear agreement?

A The same answer, I did not have the information to

do that math. I think Lear was $5.9 million and GM was $50,000, if I remember correctly.

Q So let's start with the GM agreement. I believe that was in 2011 or 2012, you may remember better than me, if you can --

A Well, actually I can remember better if I look at my schedule. That was 2013, January of 2013.

Q And so, do you have any professional opinion on how many units you think GM sold since 2013 under that license?

A I don't. I don't have the number to be able to do that calculation. I also understand that that negotiation was influenced by GM's bankruptcy and Lear's potential bankruptcy as well, so it can be a challenge to get money out of companies that will just potentially be able to just discharge the obligation, so I understand that was part of the considerations. But to answer your question succinctly, don't have the ability to do that math.

Q So the $50,000 license for an unlimited number of devices didn't trigger the Most Favored Nation clause, as far as you're aware?

A That's my understanding.

Q And I believe in the Lear license, it was 5.9 million for nine different Lear products across maybe

five companies, I think -- GM, Honda, Chrysler, Ford, and a non-automobile manufacturer. So for that one, any way to tell what the average royalty would have been for an -- I believe that was a 2011 agreement -- unlimited unit since 2011 for four very large automakers?

A I think I generally agree with you. I am reminded that, as I understand it, when Omega did an investigation of GM, it found that the units in question would have been covered by the Lear agreement so it wouldn't have been entitled to additional royalties on those. But I generally agree with your characterization.

Q And in the Lear agreement, that would have been for at least four companies selling from 2011 and on until the patents expire, correct?

A Well, I think the agreement was with Lear, not with those other companies, but it would be manufacturing products that could show up in those other companies' products.

Q So if that company sourced it from Lear and sold it?

A Right.

Q Okay.

A That's my understanding.

Q In your analysis of the different license agreements we've talked about, did you consider whether the other

companies were making products covered by any of the four patents involved in this lawsuit?
A I did.
Q And did you determine that any of those companies were actually making products covered by these four patents?
A When you say, "... any of those companies," if you're talking about Lear and GM and the four under Lear -- is that what you're talking about?
Q Let's start with those.
A My understanding is no, none of the patents in suit were part of those agreements.
Q And how about the other companies on your list?
A I did -- I had a Schedule 7 and a Schedule 8 in my report, and it broke the licensees out by those that had patents that were part of the patents in suit, that's Schedule 7. And Schedule 8 is the group that licensed some other patents that did not include the patents in suit.
Q So your schedule broke out whether the license agreement included any of these four patent numbers, correct?
A That's right. I think at the time it was based on five, including the '989, but yes.
Q Did you do any analysis as to whether the products

those companies actually sell are covered by any of the four patents in this lawsuit?
A Not on a technical level beyond what those agreements said on their face.
Q Did you find any products, as part of your investigation, that are marked with any of the patent numbers from the four patents in this lawsuit?
A No. I didn't do an analysis of marking, if that's what you're asking. I did see in the Numerex agreement there were particular model numbers that were identified, but that's not marking.
Q When you were comparing, I think it's -- or analyzing Georgia-Pacific Factors 12 and 13, did you look at different CalAmp products and compare the cost of an LMU-3000 with an LMU-2000 or 2600?
A I didn't make a comparison to the 2000 or 2600. I was not provided with information from you or your client on those. I was only given the information about the alleged infringing products, so the VPOD's and the VPOD2's and 3030 and 3000's.
Q For the benefit of the jury, can you explain when you're doing an analysis on Georgia-Pacific Factors 12 and 13, what you're looking at?
A Georgia-Pacific Factors 12 and 13 really say what's the portion of the profit that should be attributed or

ascribed or given credit to the patents. What of that product -- how much should the patent get as credit of the profit, like I said.
THE COURT: Mr. Kauth, I don't mean to interject, but it might be helpful to the jury if you explain or have the witness explain what Georgia-Pacific is. It may have been covered before. If so, I missed it, just so everyone understands what the inside baseball is.
BY MR. KAUTH:
Q Mr. Tregillis, can you tell us why you consider the Georgia-Pacific Factors and why they're named the Georgia-Pacific Factors?
A Sure. There was a case in the early 1980s called Georgia-Pacific versus U.S. Plywood. And in that case it was one of the first patent cases where they were looking at this reasonable royalty measure, and the court went the full effort of writing out a lot of things that should be considered. And it listed out these 15 factors that, not to say they're the only things that could be considered or that every one of them will apply in every case, but it's a good list. And like I said, basically every time you see a patent damages case looking at a reasonable royalty, they pretty much always look at those factors or the ones

that are relevant. And like I said, it's a case. And then it got up on appeal, and so courts have looked at that. And now lawyers and people like me, we look at those factors and see how they apply to the hypothetical negotiation.
Q Thank you.
A Do you agree with that?
Q I do.
A Okay.
Q We agree on something.
A We might agree on a lot of things.
Q When you're looking at the LMU-3000, are you aware that that was based on an earlier CalAmp product?
A Like I said earlier, I understand that the 3000 basically was the 2000 or 2600, I think I heard different testimony on this, but that did not include an OBD layer, and then you had the OBD layer on top of that which allowed through the OBD-II port to access the data bus.
Q Did you consider in your analysis that a lot of the features in the LMU-3000 may have been present in previous non-vehicle data bus compatible CalAmp products?
A Yes.
Q And did that make the royalty rate that you proposed higher or lower or no effect?

A It was instructive to me, but it didn't cause me to say, I am going to change the number up or down in a particular way. Because one might say, okay, we see the 2600. How does the 2600 compare in price to the 3000? And one might look at the difference and say, oh, okay, that relates to this technology that's been added to the product.

I didn't have the information. It wasn't produced to me to get into the details of the 2600, but so in this situation I didn't have the ability to do that calculation, but I -- or analysis. But I understand that with the 2600, if you overlay the OBD-II functionality with the VPOD which sells for, I think it's 50-some dollars, something like that, if you add that functionality, then that's an indication of value right there.

So that's a piece of information that I would look at is what the OBD-II is priced at, because that -- or that price differential that you talked about, too, because sometimes the price differential won't be just the OBD-II price of the VPOD or VPOD2. Not the best answer I've ever given in my life, but --

Q We're going to jump back to GPS for a minute. In your report, I think you mentioned a non-infringing way to obtain speed would be by using GPS. Do you

recall that?

A Yes. That's my understanding.

Q So if you found out that CalAmp's devices used GPS to obtain speed, would that affect your analysis as to whether those devices -- well, would that affect your analysis as far as a reasonable royalty if you found out they didn't use bus speed for the patented feature, but used GPS speed?

A Not necessarily. When I say that I understand that using GPS speed could be a non-infringing way, my understanding -- and I'm not saying I'm a technical expert, but per the testimony of Mr. McAlexander, just because you use GPS speed does not mean that you're not infringing the patents in suit. You could still be reading all the information from the data bus, and that could still trigger -- and then you could use GPS speed. That could still trigger the infringement question, whether you're infringing or -- but again, I'm not a technical expert, but that's my understanding.

Q So in your report when you said non-infringing use of GPS speed, you were not speaking specifically about the CalAmp device?

A I wasn't speaking particularly about that scenario. But, for example, using GPS speed where you, in the 2600, don't have access to the data bus, I understand

that to not be accused of infringement.

Q Going back to my question about the different CalAmp devices, some with vehicle data bus compatibility and some without, did you undertake any investigation into the value of the data bus features to CalAmp customers?

A I did look for indications of value. I did see some indications of value in a qualitative sense understanding that you could have cost savings. I saw Mr. Hall's testimony that the cost of installation is often more, higher than the cost of buying the product. I understand that in business, it's nice to be able to stock fewer, different kinds of products. So those are for qualitative things that didn't allow me to come to a number, but I also saw real live transactions where I can see licensees paying $5.00 for every unit, so that tells me that's an indication of the value.

Q Do you understand that in this case CalAmp is contending that it uses a standard bus determination protocol and that Omega is, therefore, claiming CalAmp infringes for following a standard?

A I think I've heard that argument.

Q And are you familiar with Fair, Reasonable and Nondiscriminatory licensing practices?

A Yes, I'm familiar with those. I think they're referred to as FRAND principles or FRAND royalties

Q And did those FRAND principles come into your analysis for your determination of a reasonable royalty?

A No. I did not attempt to estimate a FRAND royalty. Just to be fair to the jury, I think you and I are maybe a little more familiar with this, but -- and I don't usually respond to non-questions -- but taking a cue from the judge's instruction earlier, I understand that in what are called standard essential patents, when one might be patenting something relating to a standard, there can be situations where there's a requirement that somebody create a royalty for -- on what are called Fair, Reasonable Non-Discriminatory terms, and that's FRAND.

Q Thank you, again. Were you here for Mr. Flick's testimony regarding the marking requirements in his licenses and his licensees' reactions to those marking requirements?

A No.

Q If I told you that the licensees don't use all the patents in the portfolio, would that affect your determination of a reasonable royalty, if I told you they only use five or six of the patents out of the maybe hundred-patent portfolio?

A No, that wouldn't change my opinion.

Q And do you know what the -- from the patent -- the

licenses you analyzed, do you know the average of how many patents there were?
A I haven't done that math, but dozens.
Q Fair to say, probably upwards of 50 in most of those licenses?
A That's probably fair.
Q And does it affect your calculation at all that in this case CalAmp would be getting a license to four patents whereas those other licensees would be getting a license to the full 50 plus?
A Well, that's what I -- I think I testified about that on my direct where I was saying I think that's an argument that CalAmp would bring up and I think Omega would say, my license agreements say that I have to apply this same rate regardless of whether you're using one or four or all 50 of these. And if they were to agree, if Omega was to agree to give a patent license for less than five bucks, that's immediately going to result in lots of money that gets lost. So the terms of Omega's existing licenses really are very strong in defining how it would get treated, if you're looking at a license for one or four or fifty.
Q But the lump sum license settlements didn't trigger that Most Favored Nation clause, right, and result in a lowering of everyone's royalty rates?

A That's my understanding. I think -- as I understand it, Mr. Flick and counsel met and did calculations based on volumes and the $5.00 rates and $2.00 rates to make sure that there would be no triggering of any Most Favored Nations clause.
Q Do you think you could be accurate with an open-ended license that continues from 2011 up to possibly 2020 for certain patents?
A I think there would be an attempt to try to make a calculation that would be accurate. I suppose one never knows exactly.
Q But at some point you don't know how many devices they could sell in the next five years?
A That's true.
Q And are there limitations in the license agreements on the Most Favored Nation clause as to the $5.00 royalty as for a specific thing, and if you offer someone else that very specific thing you have to match the price?
A I'd have to look at the language. But the very specific thing, yes, I think there is a definition on what triggers the Most Favored Nations clause.
Q So maybe if you offered someone else a $2.00 bus license, but it had a lot more limitations than the $5.00 bus license, it wouldn't trigger the clause?
A That probably is a legal question. I'd have to take

a better look at whatever your hypothetical is you're talking about.
Q You mentioned that the premium you calculated was $642,000?
A Right.
Q Do you recall what the premium was in the Mid City case?
A Well, I don't think there was a numerical premium. Like I said, it started at $20 compared to five for whatever the number of units was, and they've never tripped over into the $5.00 level.
Q So it would be a significantly lower premium level, though, correct?
A Well, it's lower in terms of total dollars. It's certainly much higher in terms of applied to every unit, because they're paying 20 bucks and my average is only 6.38.
Q When you're looking at royalties, in your experience, do you ever see percentage royalties?
A Yes.
Q And is that pretty common in the industry?
A Yes.
Q And does it affect your analysis here if, let's say, the sales price from one licensee is $400 and the sales price from another licensee is $80, does it affect your

determination that it should be $5.00 for both licensees where $5.00 would be a much lower percentage for the person with the higher selling price?
A It can, sure.
Q Did it affect it in this case?
A It was a consideration. But honestly, when you have these license agreements in place that say here is the rate, it's $5.00, it's such a strong point that the consideration there is -- and especially when you consider that the alternative to CalAmp is say, okay, if I don't think I have enough product to pay my five bucks, then I raise the price by five bucks. That on an 80 to a 100 dollar product is a pretty reasonable -- it's not a game-changing price increase. So as a result, I think that that's a stronger point. Although, I certainly agree with you. If you have a $5.00 royalty on an 80 to a 100 dollar product, it's often easier to pay that than it is on a $100,000 product.
Q Do you recall Mr. Hall's testimony from earlier today on the video that, I believe, Novatel and Danlaw and Xirgo were all undercutting CalAmp on price?
A I don't think he said -- I think he said that he beats Danlaw on price. He said he was competitive with Xirgo. Those are the ones I can recall.
Q And do you think that if they lowered their price by

the, is it $6.83, it would effect their ability to remain competitive?
A Well, I think you meant to say if they raised their price, not if they lowered their price.
Q I did, thank you.
A Do I think it would affect their ability to remain competitive? Potentially. But in a world in which you have people who are going to have to pay for their use of intellectual property, and that means everybody has to increase their prices to pay for royalties, then that's the reality of it.
Q You had mentioned earlier another clause that's typical in the license agreements where licensees have to assign back their technology or their improvements to Omega; do you recall that?
A Yes, per those agreements I talked about.
Q Would it affect your calculation at all if I told you that no licensee, to date, has ever assigned back any technology to Omega?
A Not necessarily. I think it wouldn't change my calculation, if that's what you're asking.
Q Didn't you testify earlier, though, that Omega gets great value from this and it increases the pool for all licensees and so that would be one reason they wouldn't agree to a lower royalty with CalAmp?

A I probably testified to something like that. I don't know if I said great value, but they'd certainly get value from that, yes.
Q So if the historical value were zero, would that change your calculation at all?
A I don't think that -- even if they've gotten no patents that have been assigned to them, I don't think that means there's no value to that agreement or that part of an agreement. You're still able to go out and tell the world, if Audiovox ever does anything, ADS ever does anything interesting, we're going to get that, then others say, okay, well, that's valuable, great. It's a nice thing to have in a negotiation on a license agreement going forward.
Q And in your calculation -- I know you mentioned you had the top four companies sort of in the telematics industry -- did you look at in the entire telematics industry that relates to the vehicle data bus how many companies license the Omega patents?
A I haven't done the math on that.
And just to follow up on my answer to your previous question, I think -- I understand that there has been some technology that has gone to Omega as part of its agreements. I think that there's been a discussion with DEI about that. So I think there has been some

technology that's gone to -- my understanding -- that has gone to Omega pursuant to that assignment back provision.
MR. KAUTH: All right. Thank you, sir. I have nothing further, Your Honor.
THE COURT: Thank you. Any redirect examination?
MR. SANTURRI: Briefly, Your Honor.
THE COURT: Well, you have 15 minutes, so...

REDIRECT EXAMINATION

BY MR. SANTURRI:
Q All right, sir. We heard you explain to the jury what the Georgia-Pacific analysis is. Is that an analysis you conducted?
A Yes.
Q And was that -- the basic framework was what was applied to the ultimate conclusions that we discussed today in your direct?
A Yes. That was in my initial report. And I think that really all the things we've talked about fall within the Georgia-Pacific framework. They all -- I haven't called out for them to connect the dots, pin the tail on the donkey, but the things that we talked about are the things Georgia-Pacific asks us to consider.
Q Do you have a copy of your original, your first

report with you?
A I do.
Q You were asked about whether you knew the cost or sales price of some of the licensed products under Omega's licenses, and I believe you had a section that actually talks about that. If you take a look at page 47 of your first report --
A Yes, I'm there.
Q -- did you have some discussion of how much some of the licensed products are actually sold for?
A Yes.
Q And how much are some of the licensed products sold for under Omega's licenses?
A I think I say here in paragraph 152, I understand that some licensees have manufactured products under the asserted patents for between $4.00 and $9.50 and sell those units for approximately $20. I understand other licensees may manufacture units for approximately $50 and sell them for between $70 and $100. So thus, there is evidence that other licensees are able to make an adequate profit on licensed products.
Q And some of Omega's licensees actually sell their products for less than the CalAmp units accused in this case?
A That's right. The one selling for $20 are less than

the CalAmp accused products.
Q You were asked about the GM and Lear licenses. I think you started to try to explain a little bit about the implications of bankruptcy. Do you have any understanding as to how a bankruptcy proceeding might impact Omega's claims for past damages?
A Yes. I understand that where a defendant has been found liable and has to write a check basically to a plaintiff and the defendant goes through bankruptcy, in some situations that debt is discharged when you go through bankruptcy and you don't have to pay it in the future. I'm not a legal expert, but as a financial analyst, who has analyzed bankruptcies, that's my understanding.
Q So no matter how many units GM, Lear, any of Lear's customers had sold, those would have all been washed through bankruptcy and might have resulted in zero dollars?
A Perhaps that's a possibility and that's what I understand to be one of the considerations that Omega had in its mind when it agreed to those amounts.
Q And Mr. Kauth referred a couple times to these open-ended GM and Lear licenses that allowed them to consider selling products under the licenses. Do you know whether either the GM or the Lear licenses included

multi-vehicle patents, such as those at issue in this case?
A No. None of the patents in suit in this case were part of either GM or Lear.
Q And do you have any evidence to suggest that GM or Lear has sold a single product under those licenses after the execution of those licenses?
A Not that I'm aware of.
MR. SANTURRI: Your Honor, I don't have any further questions.
THE COURT: Thank you very much.
MR. KAUTH: Could I have a brief recross, Your Honor?
THE COURT: On what issue? It needs to be limited to something raised on redirect.
MR. KAUTH: It was on the pricing issue.
THE COURT: That would be fine, very briefly.

RECROSS EXAMINATION

BY MR. KAUTH:
Q For the manufacturers you mentioned that you had estimated costs and sales prices, where did you obtain that information?
A That was from a discussion, I believe, with Mr. Flick.
Q So no documentation?

A No. That was, like I said, based on a discussion with him.
MR. KAUTH: Nothing further, Your Honor.
THE COURT: Thank you.
All right, sir. Thank you very much. You're excused.
THE WITNESS: Thank you.
THE COURT: All right. For scheduling purposes, will the plaintiff have any additional witnesses to call in its case in chief?
MR. GILCHRIST: No, Your Honor.
THE COURT: All right. If I can get at least one representative from each side to come up. We'll talk about a scheduling matter before I let you go for the weekend so I make sure we don't waste your time in the morning on Monday morning.
[Sidebar.]
THE COURT: All right. For purposes of Monday morning for the motions that I anticipate will be argued, if we can start them at -- is it possible for you all to be here at 8:45?
MR. GILCHRIST: Yes, sir.
MR. KAUTH: Sure.
THE COURT: If we get 15 minutes a side we can have the jury, I think, seated comfortably by 9:30.

MR. GILCHRIST: Yes, sir.
THE COURT: So I'll tell them 9:30, and we'll be ready to roll by then. All right, very good. Thank you.
MR. GILCHRIST: Thanks.
[End sidebar.]
THE COURT: All right. I try as best as possible, and we all do, not to have you sit there longer than necessary. In fact, on our afternoon break you waited five minutes more than you should have, but I realized my watch was not in sync with the courtroom, so I fixed that.
But for Monday morning, we'll have you start at 9:30. There's some matters that we'd like to take care of and not have you wait so we'll get here early in the morning, deal with it, and that way when you come in we'll be ready to go, so 9:30 on Monday morning, please.
I need to remind you again -- my cautionary instruction that you've become familiar with -- please don't discuss the case with anyone else or among yourselves and please refrain from any independent research. Have a very enjoyable weekend. Relax. You've certainly earned your time off. Just leave your pads there. We'll collect those for you. Thank you very much.

(Jury exits.)

THE COURT: All right, thank you.

The record should reflect the jury has withdrawn. Please be comfortable.

Nancy just reminded me, I failed to tell the jury we're likely to go into Tuesday. And I'm going to have her just simply let them know that so if they have anything happening Tuesday, they can tell their employers or whoever it is rather than find out Monday and be upset.

We do need to try to get this to the jury by Tuesday. I have sentencings all day Wednesday, so that day would not be available. So does that look like that's realistic in terms of getting it at least submitted for their deliberation by close of Tuesday?

MR. KAUTH: Yes, Your Honor.

THE COURT: I like that confidence.

All right, great. I will see you all on Monday morning. 8:45 we're going to be here.

Koretta, at 8:45.

MR. KAUTH: Your Honor, one more housekeeping matter.

THE COURT: Sure.

MR. KAUTH: You had mentioned, if we could point you in the right direction regarding the '278

patent anticipation.

THE COURT: Yes.

MR. KAUTH: We can provide something in writing if you'd like, but it was Defense Exhibit 38, the expert report of Mr. Andrews. I could just hand this up if that would make it easier.

THE COURT: That would be great. Thank you.

(Brief pause in proceedings.)

They figured us out. They were asking the CSO if they were going to be working Tuesday.

Okay, great. I'll read this.

All right, thank you. Anything else?

MR. SANTURRI: Your Honor, with respect to that, I don't know if you wanted anything from us on that issue. We were really trying to take a look at that last night. I think our issue was we had his report and then he subsequently made certain concessions at deposition that basically changed the opinions that were in his report. And I think the Court has his deposition transcript. But if the Court needs us to direct it to a certain location, I can.

THE COURT: You know -- and I'll be very transparent about it -- what concerned me when I ruled on the -- and please be comfortable. What concerned me when I ruled on the summary judgment on anticipation

relative to patent '278 was the plaintiff had pointed to the defense expert, Mr. Anderson's [sic] deposition where he apparently conceded that he was not going to pursue anticipation as to '278. It's no longer relevant to '989 since that one's gone. And my order that I entered in that matter reflected the fact that in light of the fact that Mr. Andrews' submission in support of summary judgment was a declaration, after he already indicated he was not going to speak to anticipation, deprives the plaintiff of the ability to delve into that, which is obviously why we have the reports in discovery.

So it's not uncommon for someone to be more broad in their report and then retract a theory for whatever reason, very legitimate reasons. But if the plaintiff has not engaged in discovery on it, then the defense is no longer present.

In other words, the mere fact that it's in the report would not be adequate. Otherwise, people could always load their report up with matters and then say, no, I'm not going to really go there and later say, but there it was, you were on notice. And that's a problem, because there could be some rebuttal to that that would have been engaged in.

So if the deposition, as represented by the

plaintiff, has Mr. Andrews saying he's absolutely not pursuing anticipation, that's going to close that matter, even if it's in the report. He would have walked away from that. They have no reason not to believe him on that matter. So if that's the case, that resolves that now. Do I need to read it or is that, in fact, the situation?

MR. KAUTH: We think that he was confused there and forgot that he had not combined a reference in that chart. And if you look at the chart in his report, he had not combined it.

THE COURT: The problem is that --

MR. KAUTH: This was his first ever deposition, so he was a little flustered.

THE COURT: Oh, I understand that. But if the witness states to the lawyers, I'm not going to pursue anticipation, which is a single source of analysis as opposed to obviousness, then that's what he said. And he may have been mistaken, but that's unfortunately where it gets resolved.

MR. SANTURRI: And recognizing that he is the professional expert, on page 115 of his deposition, I can -- I basically confirmed that he understood the difference between obviousness and anticipation, and obviousness required all the elements which he

confirmed.

On 113, he agreed with me that Spaur didn't disclose a controller or multi-vehicle compatible controller as he defined it. And then two pages later, as a result of that, I asked him if he understood anticipation and if he had expressed any theories of anticipation, and he said no. So I'm looking at basically pages 113 to 115 of his deposition.

THE COURT: All right.

MR. SANTURRI: Actually let me -- 112, line 24 through 115, line 22.

THE COURT: All right. Thank you.

MR. KAUTH: And I will say at the end he did change his mind and say that Spaur did, in fact, disclose the controller, and we are trying to find you that cite right now.

THE COURT: All right. I'll look at his deposition.

MR. KAUTH: Thank you, Your Honor.

THE COURT: Thank you. Have a good weekend.

DEPUTY CLERK: All rise.

THE COURT: All those traveling, travel safely. See you all Monday morning.

(Adjourned at 5:00 p.m.

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Reporter's Certification

I certify that the foregoing is a correct transcript from the record of proceedings in the above matter.

s/Koretta Stanford

Official Court Reporter
United States District Court
Middle District of Florida Date: April 12, 2016

UNITED STATES DISTRICT COURT

MIDDLE DISTRICT OF FLORIDA

ORLANDO DIVISION

OMEGA PATENTS, LLC,
Plaintiff,
v.
CALAMP CORP.,
Defendant.

Case Number 6:13-CV-1950

MONDAY, FEBRUARY 22, 2016, 9:05 A.M.
CIVIL JURY TRIAL - VOLUME V (DAY 5)
BEFORE THE HONORABLE PAUL G. BYRON, AND A JURY
UNITED STATES DISTRICT JUDGE
ORLANDO, FLORIDA

COUNSEL FOR PLAINTIFF:
Brian Gilchrist, Esq.
Ryan Santurri, Esq.

COUNSEL FOR DEFENDANT:
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Eugene Chong, Esq.
Carrie Wozniak, Esq.
Charles Halloran, Esq.

*Proceedings recorded by mechanical stenography
Transcript produced by computer transcription*

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PROCEEDINGS

(Jury not present.)

DEPUTY CLERK: Would you like me to open?

THE COURT: Yes.

DEPUTY CLERK: Okay. This is the matter of Omega Patents, LLC versus CalAmp Corp., case number 6:13-CV-1950-Orlando-40DAB.

For the plaintiff, please, appearances.

MR. GILCHRIST: Brian Gilchrist and Ryan Santurri.

DEPUTY CLERK: And for defense.

MR. KAUTH: Joel Kauth, Eugene Chong, Carrie Ann Wozniak, and Charles Halloran.

DEPUTY CLERK: Thank you.

THE COURT: All right. Good morning. We're here this morning prior to the jury coming in to deal with any motions the defense cares to make before we continue on, so I'm happy to hear from defense.

MR. KAUTH: One point of -- we hadn't heard if the plaintiff actually closed their case yet.

THE COURT: They had said on Friday that that was their last witness.

MR. KAUTH: Okay. We have two motions we'd like to bring, Your Honor. The first is for judgment as a matter of law for Omega failing to meet all of the

evidance that a jury could rely on to meet all the elements of each of the claims.

THE COURT: How does Mr. McAlexander's testimony not address that, at least for purposes of the motion for judgment as a matter of law since I must accept his facts as true and give it in the light most favorable to the plaintiff? Because he did go through a claims chart and specifically state that each of the patents was infringed by the accused devices.

MR. KAUTH: We think he failed to address what control functions were being performed. And this is with respect to the '875 patent.

THE COURT: Okay.

MR. KAUTH: That they were actually generating the working and non-working command signals. And on the transmitter and receiver issues that ties into our other motion. The evidence provided in testimony for the Claims 1 and 12 of the '876 patent and -- I have to check my notes -- 1 and a few others of the '885 patent were based on the CalAmp server satisfying the transmitter requirement, whereas in his expert report he relied on the chip set on the device having both the transmitter and the receiver.

And in that case, the claim requires that the transmitter and the receiver communicate with each

other. And he didn't provide any testimony about the on chip set doing the communication with each other that would actually frustrate the purpose of the claim. It's supposed to go outside. So for a number of those claims he failed to provide the transmitter element. That follows over into '885 as well.

Also the storing, reading, and determining a match on the device codes. We heard testimony that didn't follow the Court's claim construction order as to what the device code was. It was coming from the LMU and going onto the vehicle bus whereas the Court defined device codes as being signals from a vehicle device. So as I'm sure you recall, we went round and round on the definition of device code. And again, we feel that on the '885 patent he didn't actually define what control functions were being performed by the LMU.

On the '278 patent, again, we feel he didn't show any control functions the LMU was actually performing onto the bus. And again, we have a very similar device code issue in that the claim required a corresponding vehicle device code from among a plurality thereof for different vehicles, and he was using different constructions. For the purposes of the device code, the vehicle device would have to be the LMU to make it go in the proper direction. Whereas in his

deposition and in his expert report, he identified the engine control unit as the vehicle device that was providing the device code.

And on the '727 patent, he brought up a new theory of infringement that using the GPS speed could now satisfy the claim limitation which we, again, feel is not addressed in his expert report there. We saw he was relying on speed from the vehicle bus. And so that's the second half of our motion to strike portions of his testimony is the new transmitter theory that wasn't previously disclosed in his expert report and now the new theory of GPS speed satisfying the threshold speed limitation in the '727 patent.

The other areas kind of fall from those. They fail to provide sufficient evidence of indirect infringement. There was no testimony about an intent to infringe that's required for indirect infringement. And there was no testimony that -- of an actual customer that he determined actually infringes. There was lots of speculation that they might, that they could, that it was possible, but you actually need a direct infringer to support the indirect infringement claim.

Omega also failed to provide legally sufficient evidence for showing willful infringement. I don't believe we heard testimony for each patent of

when notice was provided to CalAmp, other than the filing of this lawsuit. I think the case law backs up that that's insufficient to show willful infringement. I believe in Mr. --

THE COURT: Isn't willful infringement also just relying -- the way I interpret willful infringement, and I've read the controlling cases on this issue, is that -- let me just be specific here -- that plaintiff has to show by clear and convincing evidence -- this is Bard Peripheral Vascular versus W.L. Gore. The plaintiff has to show by clear and convincing evidence the infringer acted despite an objectively high likelihood its actions constituted infringement of a valid patent. Plaintiff must also show this objectively-defined risk...was either known or so obvious that it should have been known.

And the question I have here is whether or not a patent itself wouldn't make it so obvious it should have been known had a person looked at the patent and compared its claims and specifications to the accused device. Is that sufficient in and of itself since the patent should serve as notice to the public? That's the point of a patent.

MR. KAUTH: I think here there's no evidence that even the most recent patent, the '278 patent, that

that was known to CalAmp before the filing of this lawsuit as identified as any products --

THE COURT: But isn't that a problem that goes towards recklessness? Because you're supposed to do a search for these things. It's like saying, I'm not aware that you have a deed on your house even though I just built on your land. I mean that's the purpose of highlighting it.

MR. KAUTH: That's been the shift in the law, Your Honor. This two-part objective test that you have now shifted away from the old duty to investigate. In this case, CalAmp did investigate and looked at a lot of things, a lot of --

THE COURT: Didn't you also hear testimony, though, that they didn't look at the Omega patents? There was at least one witness who testified in video deposition that he did not consider the Omega patents in creating the devices that are accused, unless I'm mistaken. I remember --

MR. KAUTH: I do not recall that. I recall Mr. Chen testifying that he spent hundreds of hours going through the patents, both Omega and of others, in coming up with the investigation and relying on opinions of counsel, and there's been no rebuttal evidence to that. So we don't feel there is sufficient evidence to

meet the clear and convincing standard.

THE COURT: Okay.

MR. KAUTH: I briefly mentioned the lack of notice. As you know, we had a motion in limine regarding the discovery responses, which elicited no response, as far as any items marked with the patent number despite lots of testimony regarding marking requirements in the licenses leading one to believe that if there were products out there covered by any of the patents in suit, they weren't being marked.

There has been no actual evidence of a single product with one of these patent numbers being marked. And we didn't hear any testimony about when Omega first provided notice that it believed either the LMU-3000 or 3030 infringed. That would be the four patents remaining in this suit.

And we also feel the damages evidence was insufficient. The expert admitted several factors that he didn't fully consider. He considered many licenses with sort of a face value, because they included a large portfolio of patents on them, but had no evidence that any of those licensees were actually utilizing those patents in suit. And Mr. Flick's prior testimony was that many of this licensees actually don't utilize all the patents in the portfolio, so we think there was a

causal problem with the link between the relied on licenses and the patents in suit.

THE COURT: Didn't the witness also testify that regardless of whether all of the patents in suit are infringed or one that the royalty would be the same?

MR. KAUTH: He did. We think it was the reliance on the license with no clear link that -- he testified basically that this is an established royalty. But when you do that, you have to look back to the actual technology at issue. And although the numbers may match up on the licenses, there's no evidence that any of those licensees actually make a product covered by any of these four patents.

THE COURT: All right.

MR. KAUTH: And if it would help the Court, we could definitely provide a written motion --

THE COURT: Not necessary.

MR. KAUTH: All right. Thank you, Your Honor.

THE COURT: Thank you.

Response by the Plaintiff.

MR. SANTURRI: Your Honor, let me first start with the McAlexander issues. I think the first one that was raised is the notion that somehow Mr. McAlexander didn't identify CalAmp's server as part of the communication link between the LMU-3000 and their back

end server. However -- and I can -- if the Court wants me to, I can certainly give page cites for his report, but his report specifically says what the claims that Mr. Kauth was referring to that the CalAmp unit talks to a central server. His report also gives the same figure that we used as a demonstrative that showed the entirety of the system that showed the CalAmp unit along with the central server. Those were all a part of his expert opinions, that the CalAmp central server -- or the CalAmp server acted as a central station, which is actually one of the dependent claims. So I think with respect to those elements and whether those were described in Mr. McAlexander's report, I think they were there. I think the Court heard testimony on those, and the jury.

Mr. Kauth also raised the question of control functions and whether McAlexander properly addressed that. We had very clear testimony from him that he explained the bus architecture and how when a device talks on a bus it seizes control of the bus.

And basically for that moment in time it has control of the bus, and other devices on the bus are obligated to respond in response to a device's request. So we have the LMU products that send out command signals, for example. There is an obligation that those

devices on the other side respond, and Mr. McAlexander explained that that was a control function. So that really meets the way that this Court has defined those claims, and I think that it establishes infringement as to all of the independent claims.

Mr. Kauth referenced device codes and how somehow those were different than the device codes as defined by the Court. Again, I don't think that's correct. The device codes were defined as a signal from a vehicle device. Mr. Kauth -- without saying it, he seems to be arguing that the LMU-3000 can't be treated as a vehicle device.

THE COURT: That was discussed in detail, and Mr. McAlexander testified that it could be.

MR. SANTURRI: Yes, sir. So I think we've covered that. And so with respect to having hit all of those elements and addressed each of those points, I think Mr. McAlexander's testimony covers all of the claims as we went through the claim charts.

There was some reference to whether Mr. McAlexander deviated from his report with respect to the speed patent, the '727. Again, he talked about speed from the data bus. He talked about speed thresholds. I think all that's covered in his report, and so I think we've covered all of those issues.

THE COURT: Let's turn to the willfulness issue --

MR. SANTURRI: Sure.

THE COURT: -- in terms of notice and what's required for willfulness and whether or not there's been evidence in the record to support it.

MR. SANTURRI: Well, I think first we can talk about notice. We can talk about it in two points 'cause there is -- we have had a considerable amount of circumstantial evidence as to marking. Mr. Flick testified that many of his licensees are required to mark and that when he goes to shows, he confirms they're actually marking where they send him products.

I think the next issue with respect to notice is we had Mr. Chen's e-mail -- it was Plaintiff's 39 -- where he had the entire list. And the testimony was that that list was based on the patents identified to him by Omega Patents. And we heard his testimony. He had spent hundreds of hours looking at these patents trying to determine validity and questions of infringement.

We had Plaintiff's 47 where Mr. Chen said specifically with the '278 that the claims to that patent are going to be, quote/unquote, harder to avoid. So the notion that somehow Mr. Chen and CalAmp didn't

have notice of the claims -- of the patents and the claims at issue, the e-mail, Plaintiff's 39, covers three of the four patents. It identifies them specifically as ones that Mr. Chen analyzed. And that Chen e-mail at Plaintiff's 47 specifically refers to the '278 being harder to avoid. So with respect to notice and knowledge, we think we have that covered.

We had testimony from Mr. Hergesheimer that they didn't do anything to find alternatives or try to design around the patents in suit. They admitted that there were no non-infringing uses. They admitted that in response to questions about willful infringement, Mr. Hergesheimer said, well, they didn't willfully infringe because they provided products that their customers wanted. That doesn't exactly help them on willful infringement. In fact, it really goes to this whole indirect infringement and the customers at issue.

THE COURT: Let's turn to indirect now. I'm comfortable with the willfulness.

MR. SANTURRI: Sure.

The indirect infringement under 271(b) and (c), there is a notice and knowledge requirement. I think we covered that is the same as for willful infringement, so that really covers those issues.

Then, the question is, are there direct

infringers. There is case law -- I don't have the case handy, but we can try to get the cases that talk about how with indirect infringement you can identify basically a class of customers, the type of customers for which -- whom the particular infringing product or system is designed, and those folks may be the direct infringers, and the manufacturer the indirect.

However, we do have actually evidence at Plaintiff's 16. That was the interrogatory response that had whole lists of specific CalAmp customers for whom CalAmp's -- we heard testimony that they had actually loaded scripts for, for example, speed thresholds using bus speed.

We also have a discussion from Mr. Eiberger mostly who talked about how the vast majority of their customers are provided with support direct from CalAmp in order to get these devices up and running. We heard testimony that these devices are nothing but a paperweight without the various scripts that are necessary to run them. And so I think we have covered that with respect to inducing infringement.

With respect to contributory, we also have to establish that there is no non-infringing -- no substantial non-infringing use, and Mr. McAlexander testified to that. I think we may have had testimony

from at least one of -- one or two of CalAmp's witnesses, Mr. Herzesheimer and Mr. Hall, who talked about how the value would be significantly impacted if they were not, for example, multi-vehicle and also talked about how really the only -- the main goal or the main benefit of many of these products is the OBD-II interface, and without that there's no infringement. Without that there's no real value to these particular products. So, I really think that covers all of the indirect infringement issues.

And then, the last issue was with respect to damages. I think there was adequate, plenty of evidence from Mr. Tregillis --

THE COURT: -- cross examination goes to the weight of the opinion, in my view.

MR. SANTURRI: And there was one other point: The question of whether any licensees actually practice these. And I think Mr. McAlexander and Mr. Tregillis noted that the DEI case, DEI was found to be a willful infringer of the '885 patent. So we know that there are other entities practicing the very patents and claims at issue in this case.

THE COURT: All right.

MR. SANTURRI: So unless the Court has other questions for me, I'll go ahead and sit down.

THE COURT: I don't. All right. Thank you very much. At this juncture -- and it's at the close of the plaintiff's case. At this juncture, I find the evidence is sufficient as to infringement. The evidence is sufficient for purposes of a motion for a judgment as a matter of law on the issue of willfulness.

The issue of indirect infringement, I think the evidence is sufficient as well, and that's what I find. And as to damages, the points that were made by the defense in cross examination are very good points, but those are for the jury to calculate and determine whether or not the hypothetical negotiation is legitimate.

We'll, of course, turn on the issue of willful infringement at a later date to determining the defenses of reasonableness, and then the jury may have some questions, and ultimately I'll decide if a reasonable person would have relied on those defenses.

Let's turn to the defense of anticipation for a moment. It's going to come up later today when we talk about jury instructions. In terms of the defense of anticipation, I went back and I reviewed the testimony of Mr. Andrews as to the '278 patent where he -- in his report he certainly refers to the '074 patent as Spaur, S-p-a-u-r, and he also speaks to the '392

patent to Bambini, B-a-m-b-i-n-i. But as to Spaur, he makes it clear in his testimony at page 115, lines 4 through 22, that he is not pursuing anticipation defense, as to the '278 patent.

And as to the '392 patent, as a piece of prior art, he acknowledged that it does not disclose a multi-vehicle communication controller. As a result, that would not qualify as a piece of prior art for anticipation. So I think the plaintiff's point is well taken.

The defense of anticipation as to '278 was not preserved by the expert. He waived it. He may have done so improvidently, but that's his decision to do so, and I'll grant the request to exclude any reference to anticipation, including jury instructions, as the case goes forward.

Obviousness is still there. I need to reflect upon written description. I'll need some help when we get to the charge conference on whether written description's been preserved. I know it came up in the motion in limine but, quite frankly, I have to go back and read the motion to refresh my memory as to what exactly happened.

We have a few minutes before the jury comes in. Let's take a break until 9:30. When they come in,

we'll start promptly then. Yes, sir.

MR. GILCHRIST: Your Honor, as long as we've got some time, if I may raise something that's likely to come up today.

THE COURT: Yes, sir.

MR. GILCHRIST: If the Court will recall, there was a motion -- or part of the Daubert motion, docket 117 I think it is, that talked about the big, long list of prior art references.

THE COURT: Right. And there was a number I excluded, because they had not been specifically identified.

MR. GILCHRIST: Correct. We heard in opening from Mr. Kauth that the jury is going to hear about this and hear about this. And since they're excluded from Andrews, the only other witness they have is going to be Mr. Chen. Mr. Chen has not been identified as an expert, and as a lay witness would not be able to provide testimony explaining the references and the like.

THE COURT: A lay witness cannot provide information -- and we all know this -- as to scientific or technical matters. There is a gray area, for lack of a better term, when we're dealing with a witness.

Rule 701 states if a witness is not testifying

as an expert, testimony to form an opinion is limited to one that is, A, rationally based on the witness's perception; B, helpful to clearly understanding the witness's testimony or determining a fact at issue; and C -- and this is the important part -- not based on scientific, technical, or other specialized knowledge within the scope of 702.

There are many cases where lay witnesses can speak about an invention, how the invention works and so forth due to the familiarity with the invention. That would make sense. Just as a president of a company can talk about the downturn and their economic prosperity due to compensation, these are all within their perception. My concern is when a witness strays outside of perception into what an expert can comment upon.

Experts can comment upon hearsay, so long as it's the type that they typically rely upon. We all know that. And that's how these experts get to talk ad nauseam about other patents and other reports and other whatever, prior art and the like. But to the extent it's a lay witness, I don't know how their perception entitles them to speak to that which would be typically scientific, technical, or other specialized knowledge within the scope of 702. If you could help me with that -- I looked through the cases in the Fed. Circuit on

this point and found nothing.

MR. KAUTH: Absolutely, Your Honor.

Here, Mr. Chen is testifying as to what he found when he did a search. He is the person that was designated by CalAmp to find a search. He's testifying as to what he understood this reference meant, what he conveyed to CalAmp, and why CalAmp relied on his findings before they went out and also obtained an opinion of counsel. He was the person tasked with this.

We've actually had the door opened already when his deposition video was played to the jury. When he was questioned about the prior art, he was also questioned about his own patent which bordered on legal conclusions, as far as asking what claims meant and what certain terms meant. He's testifying as to his impression of what this patent disclosed. Right or wrong, he's not absolutely saying it disclosed that, but he has to be able to testify what he understood it to mean, what he conveyed to CalAmp, and why they relied on it in their defense of non-willful infringement.

THE COURT: All right. Now is that normally within his wheelhouse of responsibilities to look at prior art, to provide advice to his client and his company?

MR. KAUTH: I believe we saw in the video that

he called it patent farming. But it is part of his duties to evaluate intellectual property before CalAmp moves into areas, he does due diligence. But here, he was tasked with, before we go into the area, tell us the lay of the land and come back to us and he reported back to CalAmp, and that's why they moved forward with it.

THE COURT: All right. Help me understand, Mr. Gilchrist, why that's not typically within a technically savvy lay witness's perceptions and important to understanding their opinions.

Obviously, he could not give an opinion such as an expert would on the ultimate issue of infringement/non-infringement. All he would be able to do is say, I reviewed the following. I interpreted this piece of prior art to mean the following, and I told that to my client. He would not be allowed to tell the jury, therefore, it was obvious and, therefore, it didn't infringe, as an opinion to them, because he's not qualified to do that.

MR. GILCHRIST: Well, because reviewing it and identifying it, I think, are within his wheelhouse. The problem becomes when he begins to interpret it. He's relying upon the hearsay statements of what the art says. He's using scientific or technical information to interpret it and relay that information to the jury.

If they wanted that type of information to the jury, under Rule 26, they would have had to identify him as an employee expert and provide that report of what he's going to say. They never did that.

During deposition testimony, we specifically asked him, who is going to testify as to these matters, and he said, I don't know. And so, we didn't have the opportunity to inquire as to his interpretation. He has no legal training. As the Court ruled on some of the cross designations, these go to legal issues, and so I think the line needs to be drawn.

Yes, I identified this. Yes, I identified that. I think the patents can come in as part of his analysis. But once he moves to that level of saying, well, here is what the patent says or here is what this references, how I interpret it, because what he did is instead he went to Mr. Kauth's firm, and he'll produce his stack of opinions, and it was the opinion of the lawyer that he testified he relied upon when he moved forward, not his own opinion.

He said he spent hours and hours in Mr. Kauth's law firm talking about these things. And that's where there is distinction between the analysis and the legal interpretation of the claims. He didn't identify what claim language he interpreted or the

Court's construction. So it really -- it incorporates all kinds of issues -- hearsay, and it confuses the jury. It's a quasi-expert trying to get in all the things that Mr. Andrews couldn't get into, because he didn't put them in his expert report.

THE COURT: And you believe that it's proper for the witness to be able to at least say these are the pieces of prior art that I looked at and told my employer I looked at, but not getting into how it relates to a particular claim?

MR. GILCHRIST: I think that's fair. I think that's within his area of employment. And he can identify -- he's got the long list of patents, and he can explain that he had these patents and he was tasked with going out and doing the patent farming and looking for the prior art references.

MR. KAUTH: Your Honor, the testimony that he gave was that he had looked at the prior art. I don't believe he said he didn't know who would testify. I think they asked if he would be at trial. He was designated as the 30(b)(6) witness for CalAmp on the invalidity and the prior art. They had two chances. I think they did a -- I guess for him one deposition, but he was designated in multiple areas, including why CalAmp believed it didn't infringe, I believe, and also

why it believed the patents to be invalid. They inquired into three or four of the prior art references, but didn't go further.

But to limit him from what he told CalAmp will not allow the jury to see was it reasonable for CalAmp to rely on Mr. Chen's opinion. CalAmp did not just discount his opinion. They, to be doubly safe, went back and said, okay, we also want an opinion of counsel. We have an employee who has for years been looking at references. He came back and told us, I think this reference has a transmitter. He did not give a legal opinion on non-infringement or invalidity.

THE COURT: The point Mr. Gilchrist is making, though, is perhaps a little bit different. And that is any witness who is testifying, I read a document that is purely hearsay and I'm interpreting it to mean the following, that's an expert's job.

A lay witness can I say, I know it doesn't infringe because I helped design the device, and it doesn't have a device code. It doesn't have a -- you know -- it doesn't work with a plurality of devices. That is a tough word. He can speak to things or he or she can speak to things that's within their perception. If you're the technical person that helped with the line drawings, he might be able to say, I disagree that this

is a transmitter receiver. Those things are fine.

Where I'm having difficulty is experts are the ones who collect outside information, synthesize it, and give an opinion. And to the extent he's doing that, even if he was disclosed as a 30(b)(6), that's part of the equation, because the plaintiff presumably has to be your corporate representative to speak. That's separate and apart from whether they're qualified to render the opinions. If they stray beyond the role of a lay witness's testimony, it doesn't morph them into an expert simply because they're a 30(b)(6).

MR. KAUTH: But if we look at the confines of the hearsay rule, is he relying on this for the truth of the matter asserted? He's not. He's telling, what did he perceive, what were his impressions when he read this, and what did he tell his employer based on that. He's not saying, absolutely this discloses X, Y, Z. He's not opining on the truth of the matter asserted in the patent, whether that technology works or not. He is testifying simply as to his impression of what this document conveyed and what he then passed on to his employer.

THE COURT: The concern I have, though, is that's an opinion. He's giving an opinion that is based upon scientific or technical or other information which

he may not be relying upon the prior art for the truth of the matter, and that may be one way to avoid hearsay, but his opinions to the jury, his lay witness opinions are being offered to show that his client, CalAmp, relied in good faith upon what he told them.

So -- and I have a hard time understanding how the jury won't get completely lost by how this witness can be saying, I'm not relying on these documents, but when I told my employer that, you know, we're in good shape here, it's embedded within that that they relied upon this, and that's the role of an expert. They could easily have hired an expert, either an in-house one, doesn't have to be an out-house one, to engage in all this work, conduct an opinion.

I understand for willfulness you don't need an advice-of-counsel defense anymore. Although it's helpful, it's not required. But it could be done where an expert, an in-house technical expert, engages in the analysis and relates to their client, we're in good shape, because I've reviewed it. I've reviewed the prior art versus the claims. I feel it's obvious. Because the ultimate point that he has to make is, based upon prior art this was obvious. That's the point of the testimony. That requires him by definition to synthesize it.

MR. KAUTH: But the point of the testimony, that he will not be making the ultimate conclusion of obviousness or invalidity, and I think to require that CalAmp would hire an expert would mean in every patent case you need an expert, and the Federal Circuit has said numerous times, that's not the case. You can bring in your people. You don't need to go hire an expert.

THE COURT: I agree with that. But don't you have to disclose them and give a Rule 26 report so the other side knows exactly what their opinion is and exactly what it's based upon, exactly what claims they believe are obvious and exactly why they're obvious? That's the point of Rule 26, so there won't be surprise.

MR. KAUTH: We did disclose him, Your Honor. I don't believe you do have to do that under an expert. He's not opining as to the objective, this discloses this. He's opining as to his impression. And he was disclosed as a 30(b)(6) witness on the topic of invalidity, so he was there. They had the opportunity to depose him and, in fact, did ask him, I believe, about Spaur and a couple of the other prior art references, so there was the opportunity. He was disclosed. They had the chance. And they had the list of prior art from CalAmp's invalidity contentions. And none of this has not been previously provided.

THE COURT: I understand that. But rightly or wrongly, the rules govern, whether it's a witness provided or it's a surprise issue. But whether the person is competent under the Rules of Evidence, it's a totally unrelated issue.

MR. KAUTH: But this falls under the lay witness rules that you read previously.

THE COURT: But doesn't it go to part C, they cannot opine on scientific, technical or other matter which is normally within the purview of an expert? I mean, this is as technical and scientific as one can get. How is he not engaging in that exercise of 702 where an expert provides testimony regarding scientific, technical, or other specialized knowledge that will help the trier of fact understand the evidence or determine the fact in issue, that's based on scientific facts or data, patents. The testimony is applied to reliable principles. I've reviewed them. I've compared claims. And the expert has reliably applied the principles. That's exactly what an expert does. A lay witness does everything except that. So how does this witness, even if he's competent and qualified, engage in that conduct if he hasn't been disclosed as an expert, even if he's an in-house expert?

MR. KAUTH: Because he's entitled to say the

search he did, the prior art he found --

THE COURT: Fine.

MR. KAUTH: -- what he passed on to his client --

THE COURT: Fine.

MR. KAUTH: -- and what his present sense impression was of that patent.

THE COURT: I would disagree with that part. I think he can say what he found, what he passed on and what his client received. But his present sense impression, to use that phrase, is going to be based on scientific, technical or other specialized knowledge within the scope of Rule 702, and he's not offered for that. He may be competent. I'm not saying this man is not totally competent. The point is that if he's not disclosed in the proper manner -- they had no duty to tell opposing counsel -- they, meaning the plaintiff -- to tell opposing counsel, I think you failed to properly designate to the adversarial system, and they can allow you to disclose however you choose to your peril.

MR. KAUTH: Understood. And I believe interpreting the Federal Circuit law that specifically states you don't need to have an expert, he was properly disclosed, in our opinion, under Rule 30(b)(6) as the corporate representative of CalAmp speaking on

invalidity, which is all the references. And that's what we'd like him to do, exactly what we disclosed him for.

THE COURT: All right. And let me turn back to the plaintiff, but thank you very much.

In terms of the Federal Circuit law in not requiring an expert to identify obviousness, how does a non-disclosed expert speak to obviousness if that expert does not look at prior art and compare it to the claims and compare it to the accused device which is what's being offered by the defense?

MR. GILCHRIST: Well, I think that -- let me take a step back. The law of obviousness is ultimately a legal issue --

THE COURT: Correct.

MR. GILCHRIST: -- based upon the analysis and fact findings of what the art may show. And so to give an opinion as to obviousness, I think, by a lay witness would always be improper.

THE COURT: What does the Federal Circuit say about this, though? I'm just being -- I'm not being coy. I'm not familiar with everything the Federal Circuit has opined in patent cases. It's not all that I do, so I want some help.

MR. GILCHRIST: Well, I think -- there's no

good rule I can point to or case I can point to. What they've done in more simplistic mechanical cases is say, look, this is the type of invention that any jury could understand; therefore, it does not require the level of technical expertise. Once we get to the level of technical expertise that requires some expertise, that's where they draw the line and say, okay, well --

THE COURT: If the patent was for a table, which we're all familiar with, somebody could say, I looked at the prior art and this is not the same as the table defined in the other one because it has some feature that's different.

MR. GILCHRIST: I think that's exactly where the Federal Circuit draws the line.

THE COURT: All right. As much as this gives me some concern, I'm going to sustain the objection. I think 702 is clear. I have not been presented with a case that indicates that this witness can go as far as you're suggesting. If you have such a case, I'm more than happy to read it and reconsider my position.

I'm just very concerned that a person weighing into scientific, technical or other specialized knowledge without being identified as a person who is offering his opinion, whether they're competent or not, is irrelevant. It's a matter of disclosure. And the

rules are the rules. And if I'm misunderstanding what the rules are relative to this, then I'm happy to re-evaluate where I'm coming from.

MR. KAUTH: Your Honor, we would direct you to the Wyers v. Master Lock case. Let me find the cite for you here. It's 616 F.3d 1231. I'm sorry. I scrolled past our pinpoint cite.

THE COURT: No, that's fine.

I'll pull it up right now and read it.

MR. KAUTH: And then for clarification, maybe I did not state it clearly enough, we were also seeking to strike the portions of Mr. McAlexander's testimony about whether a central station transmitter has been disclosed. To the extent he just relied on the word central station, that doesn't show that it is a structure that's controlled or operated by CalAmp. But I think for many of the claims here, the picture he points to is on the chip. So this is the transmitter and the receiver on the chip.

And we have the similar issue with -- I believe counsel mentioned -- yes, in his report he talked about thresholds and bus speed. But our issue is, on the stand, he didn't talk about that. He talked about using GPS speed to satisfy the limitation. And we would seek a limiting -- move to strike that testimony

and seek a limiting instruction for the jury.

THE COURT: All right. The motion to strike is denied. I don't see a need for a limiting instruction. I think the witness did adequately cover the various issues you've just raised.

Let's take a break until 9:30. I'll read this case that has been cited. And if it changes my view, I will let you know.

MR. KAUTH: Thank you, Your Honor.

THE COURT: Thank you.

(Recess 9:20 a.m. to 9:38 a.m.)

The jury is not present. The parties are.

I have read the case that was cited before our break, Wyers, W-y-e-r-s, v. Master Lock Company at 616 F.3d 1231. And if you turn to page 1239 to 1240 is the relevant section that I have identified. And it makes clear here that expert testimony concerning the motivation combined prior art may not be necessary and -- this is in the context of summary judgment -- and even if it is present will not necessarily create a genuine issue of material fact.

In this particular case, the Master Lock case, the defendant and the plaintiff used experts to deal with the issue of obviousness and non-obviousness and the court, again, was addressing the standard for when

summary judgment is appropriate.

The court goes on to cite the Supreme Court case of Teleflex, T-e-l-e-f-l-e-x, where the court there held that the ultimate judgment of obviousness is a legal determination. And then it goes on to say, whereas here the content of the prior art and the scope of the patent claim and the level of ordinary skill in the art are not a material dispute and the obviousness of the claim is apparent. In light of these factors, summary judgment is appropriate.

The case goes on to give an example of when common sense can control. And in the term of determining obviousness, they give an example of Perfect Web at 587 F.3d at 1329 where the patented technology involved the method of managing bulk e-mail comprising essentially the steps of targeting a group of recipients, sending the e-mail to those recipients, calculating the number of successfully delivered e-mails and repeating the first three steps until the desired quantity had been achieved.

In that case, the district court looked at the accused device and found that the fourth step of trying again, reaching back out, was obvious, that it was just common sense. And the Federal Circuit said they supported that common sense approach 'cause it was

simple and obvious. And they further -- the Circuit Court furthermore concluded that no expert opinion was required to support the obviousness determination, because the technology was clearly understandable -- or easily understandable, rather.

That is, I think, distinguishable from the current set of the facts of the current case. The issue is not summary judgment. The issue is not motivation combined, which may not require an expert, but the issue goes to whether or not the accused devices were an obvious -- or the patent, rather, was obvious based on prior art. It is not easily identifiable.

I have listened closely for all of last week and I understand largely what we're talking about, but I can tell you, as we all know, it is highly nuanced, highly technical. And for a jury to try to reach a determination that this was obvious, meaning the patent or patents in question, is going to require experts to speak to those issues.

This case cited by the defense does not support the proposition that a lay witness can go beyond the scope of 701 into 702 without violating the essence of the disclosure of an expert witness. If you have another case for me to consider, I'm happy to see it. If not, then my prior ruling stands.

All right. Let's have the jury, please.

(Jury present.)

THE COURT: The record should reflect the jury has returned. The parties are present.

Good morning, ladies and gentlemen.

THE JURY: Good morning.

THE COURT: Good morning. I hope you had a restful weekend. We are ready to get started again. Now we'll be turning to the defense case. I need to, of course, ask if anyone has discussed the case with anyone else or amongst yourselves or conducted any independent research? If you have, please raise your hand. There are no affirmative responses. We are ready to go. Thank you very much.

All right. Counsel, when you're ready.

MR. KAUTH: Thank you, Your Honor.

The defense calls Gallin Chen.

THE COURT: All right.

DEPUTY CLERK: Sir, please step to the witness box, and remain standing. Please raise your right hand. Do you solemnly swear, under penalty of perjury, to tell the truth, the whole truth, and nothing but the truth, so help you God?

THE WITNESS: I do.

DEPUTY CLERK: Please take a seat.

Please state your name, sir, for the record, spelling your last name.

THE WITNESS: My name is Gallin Chen.

The last name is spelled C-h-e-n, as in Nancy.

THE COURT: All right. When you're ready.

Good morning, Mr. Chen.

THE WITNESS: Good morning, Your Honor.

MR. KAUTH: Before we get started, Your Honor, as a housekeeping matter, I'd like to move for admission of the following Exhibits: Defendant's 2, 4 through 6, 10 through 11, 17, 27 through 34, 37, 39 through 46, 48 through 52, 54 through 59, 65 through 70, and 76 through 79.

THE COURT: Any objection?

MR. GILCHRIST: None, Your Honor.

THE COURT: Those exhibits are admitted.

GALLIN CHEN, DEFENDANT'S WITNESS, SWORN

DIRECT EXAMINATION

BY MR. KAUTH:

Q Good morning, Mr. Chen.

A Good morning, Mr. Kauth.

Q Who do you work for?

A I work for CalAmp Corp.

Q And what's your position at CalAmp?

A My position is senior director of business

development in CalAmp's corporate development group.
Q And what do you do in that position?
A A variety of things, including working in pretty much all of our intellectual property-related activity, work on strategic relationships and initiatives. That can include licensing and partnerships, complex business dealings, things at that time are outside our normal day-to-day business activities for our business units. And once in a while, an inquisitive customer that wants to get to the CEO gets to me first.
Q Let's step back and see how you got to CalAmp. What is your technical background?
A So I have a degree in electrical engineering and computer sciences. It's a Bachelor of Science degree. It's from the University of California, Berkeley. Sometimes it's better known as California, if you're a sports fan, not that we're that good of a sports program, but it's how it comes up. It's kind of like Carolina gets recognized. And after I finished school, I went into a variety of engineering and engineering management roles.
Q Where did you work your first job out of college?
A My first job out of college, I was hired by GTE Corporation out of Stamford, Connecticut. GTE was a large telephone company, independent, as compared to the

baby bells, like the BellSouths and the Southern Bells. Today, GTE is part of Verizon. My first job was -- I was hired by the engineering associate development program at GTE. They gave me an opportunity to learn about the company, and they tried to essentially groom me in an unofficial technology management development program. My first assignment was a very interesting one to me. I went to Wakeen, Massachusetts, which is a suburb of Boston, to GTE's laboratories. And there, I worked on the design of furnaces to grow gallium arsenites semiconductor crystals in outer space.
Q You were not in outer space, correct?
A I was not in outer space. One of the guys in our program assigned to us was actually training to be an astronaut. I don't think he ever got to fly. But some of our -- one of our designs got to fly on Columbia, the shuttle Columbia.
Q And what other technology did you work on while you worked at GTE?
A So in my first year and a half, when I'm in this associate development program, I also worked on telephone systems and wireless PBXs and voicemail systems. I also, in my last rotation, worked on building and engineering cellular networks in the Raleigh-Durham Research Triangle Park area.

Q How long did you work for GTE?
A Overall, through two periods, almost ten years.
Q And after GTE, where did you go?
A So, I mentioned there were two periods. There was a break in between where I went to work for Los Angeles Cellular, which was a joint venture of AT&T and BellSouth at the time, and I managed their advanced technology group. I went back to GTE afterwards to build their CDMA network in San Diego.
At the end of that, after receiving the chairman's leadership award, I got an option to either take a job in Hawaii -- well, actually I got a pink slip first. I got the chairman's leadership award, a pink slip -- these are big companies -- and then an offer to take a job in Hawaii, and I decided to stay on the mainland and went into consulting work.
Q And what type of consulting work were you doing?
A Work in the wireless data Internet technology space. And when I was doing that, one of my first initial gigs was to work with an entrepreneur who wanted to know what the fastest speed of the day was, the fastest speed that he drove in that day. He also wanted to be able to locate his daughter's car -- who was about to turn 16 -- on-demand and also try and identify no-go zones, areas where she shouldn't venture into with her car. And so

that's how I ended up starting -- being one of the founders of what today we call Aircept.
Q And so, you founded this start-up, Aircept. Did they ever make a product?
A We did. We made a vehicle tracking product and solution, so we had a box that had cellular and GPS and inputs and outputs and a controller and that gets installed in the car using the car's power. And it would communicate with our server system, which would provide, you know, mapping and a user interface to allow for people to view the location of the car and to, you know, issue commands to the car.
Q And how long were you at Aircept?
A I was at Aircept 1999 to sometime in 2003, so roughly four years.
Q And were you working full time at Aircept?
A You know, I technically had two jobs then. I would say I was almost eight hours a day there and, a bunch of hours, maybe eight hours a day at another company start-up that the same venture capital firm had called Paradigm Wireless Systems.
Q And what did Paradigm Wireless Systems do?
A Paradigm Wireless Systems made amplifiers for cellular bay stations. So if you think about the towers that you see around town that provide service to cell

phones, these amplifiers would amplify the signals so it could get up to the antennas and out to the cell phones.
Q And when did you leave Paradigm?
A I left Paradigm and Aircept in late 2003.
Q And where did you go from there?
A I went to a company called Skybility, which was a maker of what we called machine-to-machine communication modules or, you know, probably fair to say that they're cell phones for machines instead of people.
Q And how long did you -- or what was your title at Skybility?
A At Skybility I was the CEO, the chief executive officer.
Q And how long did you stay at Skybility?
A I was at Skybility till April of 2005, which is when CalAmp acquired the assets of Skybility.
Q And did you move with the assets of Skybility to CalAmp?
A I did. I was bought. So I did move to CalAmp at that time. And I've --
Q And what time frame are we talking about here?
A So the transaction -- the acquisition of Skybility was April of 2005, and I am still at CalAmp today.
Q And when you started at CalAmp back in April 2005, what was your title then?

A So, CalAmp was deliberately diversifying into machine-to-machine communications technologies, and so my title was very long. It was vice president of sales, marketing, and business development for M-to-M products, M to M being machine to machine.
Q And, as you have been at CalAmp about a decade it sounds like, a little more maybe?
A Yes.
Q Have your duties changed along the way?
A They have. After a year or two at CalAmp, I started to focus more on corporate development activities. I may not have mentioned earlier that also includes mergers and acquisitions and divestitures under the strategic part of the job.
Q And --
A So after a year or two, I went into this current title as the business development role in the corporate development group.
Q You mentioned mergers and acquisitions. Does your role involve investigating companies?
A It definitely does.
Q And what type of things do you look for when you're investigating a company?
A We look at their financials. We look at their products. We look at their technology portfolios.

We look at the opinions of their customers and what other people in the industry are saying about them, you know, their contracts.
Q And can you estimate how many different technology portfolios you've looked at during your time at CalAmp?
A Oh, wow. I mean, specific to mergers and acquisition activities, that would have been maybe on the order of 20.
Q All right. Let's get a little background on CalAmp. Can you tell the jury what does CalAmp do?
A So, CalAmp is a communications company. It tends to specialize in more mission-critical type applications. Probably one that's kind of easier to understand is we provide -- one of the things we provide is asset tracking solutions and asset management solutions to municipalities.
We have some key customers here in Florida that includes Miami-Dade, Miami Beach, Jacksonville and Tampa. With these municipalities, we'll help them manage and track whichever assets they want to. Typically, it's anything from police and fire and ambulance vehicles, as well as, you know, government vehicles for government employees. A lot of places, they want to track the trash trucks to help validate that the trash truck has stopped and picked up at a

given house.
Q You mentioned asset tracking. And are you familiar in this lawsuit that four CalAmp devices are accused of patent infringement?
A I am aware of that.
Q And are those the LMU-3000, the 3030, the VPOD and the VPOD2, and another variation called the LMU-3050? Are you aware of those?
A I am aware of those.
Q Are those the type of devices that would be used for asset tracking?
A The LMU-3000 and the 3050, they have by themselves asset tracking capabilities. They have a GPS module built in, and they have a cellular module built in. The VPOD and the VPOD2, they are interfaces to the vehicle's diagnostic system. They don't have GPS and cellular built into them. So by themselves, they don't do vehicle tracking. They need to be used in conjunction with, in our case, a different type of LMU that's hard wired.
Q What does the acronym LMU stand for?
A It stands for Location Messaging Unit. It's an old term that was probably coined back in the mid '90s.
Q And roughly, how long has CalAmp been manufacturing LMUs?

A So CalAmp's been manufacturing LMUs since about -- well, since 2006. That would be when we acquired the product line. The LMU product line, they have a company called Technocom.
Q And were you involved at all in the acquisition of the LMU product line from Technocom?
A I was. That was my first mergers and acquisitions activity for the company, outside of being acquired. And so, yes, I was very involved with that acquisition. It so happened that for my time at GTE, I had worked with the principals and the owners of Technocom, because they were very active in the wireless data communications space. So I had a professional relationship with them, so it was a -- plus a turn to be able to work with them again at CalAmp.
Q Do you know how long Technocom had been manufacturing LMUs?
A They started making their first tracking products in the 1996 time frame. They had done some specialized contract products to work with companies like Teletrac. Teletrac wanted a device that could use Teletrac's network, which was a location network, and also use a cellular network in GPS. And so, Technocom made a hybrid or dual mode unit that could do both, and that's probably the early genesis of the LMU-type products.

Q So did those early LMU products have wireless connectivity or two-way radios, you might call them?
A They did. They typically had, back in those days, a CDPD modem. CDPD is Cellular Digital Packet Data. It's one of the earlier ways to be able to use a cellular network to transfer data back and forth.
Q And you mentioned, I think, location tracking and that this project was a hybrid of two different types. How did those type, the early LMUs, detect location?
MR. GILCHRIST: Your Honor, I'm going to have to object. This is not based upon personal knowledge. He wasn't around at the time. It was an acquired company.
THE COURT: All right. Sustained.
You can rephrase it, if you can.
MR. KAUTH: Let me rephrase.
BY MR. KAUTH:
Q When CalAmp acquired Technocom in, I believe you said, 2005 --
A 2006.
Q -- 2006, thank you -- how did those Technocom LMUs, the product line you acquired, track location?
A So the products that we acquired primarily relied on GPS, the Global Positioning System, in order to get location and then speed information.

Q And you mentioned your company, Aircept, was also doing location tracking. Did the Aircept product use a GPS for location?
A It did. That was the only location the Aircept product used.
Q And did the Aircept product have a two-way radio as well?
A It did. Aircept happened to be a customer of Skybility's which, I suppose, gave me an inside shot at the Skybility CEO job when the time came.
Q This lawsuit we're in now, are you aware of the plaintiff in this lawsuit, a company called Omega Patents, LLC?
A I am.
Q And do you recall what CalAmp's first dealings were with Omega?
A CalAmp's early dealings with Omega were -- we were basically sued on some of Omega's GPS tracking-related patents.
Q And were you involved in that lawsuit?
A After the suit was filed, I was involved, yes.
Q And what did your involvement include?
A It included looking into the patents to understand what they were about. It also included me, you know, trying to communicate with Omega and see if we can find

a resolution.
Q And do you know how that case was resolved?
A That case was dismissed without prejudice.
Q And do you have an understanding of what that meant?
A It meant that Omega -- the case was dismissed, but Omega would have a right to bring the case up -- bring the same case up again, if it so chose.
Q And are you aware of the four patents that are involved in this current lawsuit?
A I am aware.
Q Do you know if any of those patents were in this previous lawsuit that you mentioned?
A At this point, I do not think that there are. I don't think there's any overlap.
Q And I don't remember if I asked you this: What was the time period for this prior litigation with Omega?
A That case came up in 2009.
Q And subsequent to that case, did you have the occasion to have -- did you personally have any discussions with Omega?
A Yes, I did.
Q And tell me how those came about.
A So, on a few occasions I've met with -- in person with Ken Flick and with Bill Duffy.
Q And who is Bill Duffy?

A My understanding, Bill Duffy was an employee or a representative of Omega.
Q And do you recall the first time you met with Mr. Flick?
A That should have been at a consumer electronics show in Las Vegas. It should have been in 2010.
Q And did you have a discussion with Mr. Flick?
A We did.
Q Do you recall what was discussed?
A We discussed the case. We suggested that we had significant prior art to what we were being sued on and that, you know, we should try and find a peaceful resolution.
Q Do you know if CalAmp ever provided any of this what you call significant prior art to Omega?
A Yes, it did.
Q And since we're here today, I take it that that meeting did not lead to a license with Omega; is that correct?
A It did not.
Q Did Omega ever offer CalAmp a license?
A Yes.
Q And do you recall if that license was for patents that included the vehicle data bus or for patents that did not include the data bus?

A There have been a few offers along the way. Initially, they were offers related to the GPS tracking. And then, later on there was an offer to expand it to what I perceive to be the whole portfolio, which included bus connectivity products.
Q And what time frame was that when there was an offer to license the whole portfolio, including bus connectivity products?
A That would have been later in 2010.
Q And at that time, do you know if CalAmp had any products that connected to the vehicle data bus?
A No, it did not.
Q And we've mentioned the products that are involved in this lawsuit. Does CalAmp have any other products that connect to the vehicle data bus?
A No, we do not.
Q In your discussions with Omega, did you have an understanding of what Omega contended their patents covered?
A Yes. My understanding was what they covered was being able to control things on the car. The example that was given was if we were to implement Omega's technology, people could do a quick installation of a device, just plug it on to the car and through the diagnostic, the vehicle's bus, control the door locks

and control the starter.
Q And do you recall when CalAmp first introduced the LMU-3000?
A That was probably late -- either late 2011 or early 2012.
Q And after the meeting you said you had in CES, I believe you said 2010 and before CalAmp introduced the LMU-3000, do you recall if CalAmp ever had any further discussions with Omega?
A We did. I did. I had another in-person meeting at the subsequent CES, would have been early January of 2011.
Q And what was the topic of the discussion at that meeting?
A So the topic of the discussion at that meeting was that, you know, again, here were these big advantages for taking this technology. You know, you could control the door locks and the starter. And that, you know, Omega would help manage the marketplace to only keep, I guess, companies that Omega approved in the market.
Q And you mentioned, "...in the market." At that time, did you have an understanding that Omega had licensed its portfolio to other companies?
A Yes. I was aware that there were -- I was told that there were some licensees.

Q Did you have an understanding of what those licensees' products were?
A These products were, to me, extensions of alarm and security systems, so these products did things like controlling door locks, and it seemed like remote start of cars was kind of a key feature of what these products did.
Q And we talked about the LMU-3000. Was that the first CalAmp product that could connect to the vehicle data bus?
A Yes, it was.
Q And does that product read data from the vehicle data bus?
A Definitely.
Q Can it unlock doors?
A It cannot.
Q Can it roll down the windows?
A It cannot.
Q How about honk the horn?
A No, it cannot.
Q Can it perform alarm functions?
A No, cannot.
Q How about remotely starting a vehicle?
A No, cannot.
Q And it sounds like CalAmp left a lot of features

out of this device. It can't perform the things we just mentioned. Was that an intentional step on CalAmp's part?
A Yes. We're definitely shy to try and control things on the vehicle. It's, to us, an area that's -- it's new to us and it seems that it would be, you know, with its risks, you know, if you're trying to control something and if something went wrong through that effort to control it, then we don't know what would happen to the vehicle, and we don't want to take that chance to go there.
Q Is that because you're connected to the same vehicle bus that all the integral parts of your automobile are connected to as well?
A Yes, that's true. That's the spine of the car and the brains.
Q So before CalAmp decided to release the LMU, was there an internal decision that CalAmp should investigate a vehicle data bus product?
A Yes. We -- repeat the question. I'm sorry.
Q Before CalAmp decided to release the LMU-3000, was there some internal decision that CalAmp should investigate entering the vehicle data bus market?
A Yes. There was a decision to do an investigation.
Q And were you involved in that decision?

A I was involved in the decision. I wouldn't say that I was the ultimate decision maker, but I was definitely involved.
Q As a result of that decision, did you receive any tasks?
A I was given the task to look into what the intellectual property landscape looked like around data bus products.
Q And is that the type of task that you've done previously for CalAmp?
A On a more limited scale, I would say yes. Well, I shouldn't say it that way. Yes. It is something that I did for CalAmp previously, more so in conjunction with mergers and acquisitions activity.
Q So, you mentioned the scale of this project. Tell me what you meant by that.
A Well, we deliberately did a broad search in this area. It was an area that's new to us, so we tried to be broad about it. And, to me, it started off with a few searches around terms that I thought might be relevant and might appear in patents or other publications that could be related to this.
But it quickly grew into, like, basically a tree, and we were starting at the top. And so as we went down the tree, what we would do is if we found something that

was relevant -- patents typically have on them patents that they cite, patents that are older. And so, if we found something relevant, we'd then look at all the ones that were cited that were older. And then we'd, in turn, also look at newer patents that cited the original patent that we found. You can see this is just growing into a very big tree, so it was really a long and large project.
Q Now, were you the main person at CalAmp searching these patents or were there other CalAmp people helping you?
A I was the main person, unfortunately. It's not exciting work, but there was a little bit of help from some other engineers.
Q And were you looking just at patents or looking for other things as well?
A Initially, it was primarily patents. But because we knew there had been some companies that tried to do vehicle bus-connected products previously, we also did general Google searches related to them. I also happen to have an IEEE library subscription so I would do searches in there for publications, things that would have been published to the industry or things that were published at technology or engineering conferences.
Q And with the things you just mentioned and the

patents you searched for, how many references -- I'll call them both grouped in that category -- how many references do you think you found?
A Probably, it should be well over 300.
Q And did you look at every one of those?
A I did look at every one of those.
Q And did you try and weed that down to a smaller pile than the 300 plus?
A I did. I did try and sort things out for relevance, yes.
Q Were you able to -- did you succeed?
A I suppose I picked some of my favorites. It wasn't always an easy thing to do, but to make it more manageable, I guess, it's fair to say we succeeded.
Q And what did you do with those favorites once you narrowed it down?
A Well, I ended up looking at them several more times and looked at them -- tried to look at them in view of the various patents, other patents that we found that were held by companies that might be more active in terms of suing people.
Q And do you have examples of any of those companies you're referring to?
A So one company was known then as Network Fleet. They later became Hughes Telematics. And then, they

were acquired by Verizon, so they became Verizon Telematics. And they had a portfolio around -- included vehicle remote smog testing, if you will.

Q All right. Any other companies besides Hughes that were on your radar?

A A company called Cellport. They had been in space since probably the early '90s. They started off doing, I guess, what they called a universal car cradle. If you can think about way back when cell phones didn't have either a micro USB plug or lightning connector on them. Each manufacturer had their own proprietary connector, and even different models by each manufacturer had a different connector.

And so what Cellport started off doing was trying to make a cradle that could be put into the phone, could be -- would have cables and connectors that would fit, you know, the variety of phones out there, and then use those phones as a way to get data back and forth to the vehicle.

Q Now, did you only know about Cellport from your searching or were you personally familiar from them previously?

A I was personally familiar with them previously. Cellport had been pitching this universal car and this data connectivity concept that they called the mobile

web to the carriers. And in my time at GTE, part of what I did was things in the wireless data arena, in the location technology arena, and so I had visibility to Cellport back then.

They also tried to do a round of funding. And one of my former colleagues at GTE had become investment manager. And so, he had pulled a bunch of us together to participate in their investment round. And so, we take a look at basically investing into Cellport, the company.

Q You mentioned you had used key word searching and even some Google searching. Did you ever narrow your search or change your search parameters?

A Yes. I had a variety of search parameters that I used.

Q Can you tell us what some of the key words would have been?

A So, some of the key words would have been -- it would have been various combinations of these terms -- vehicle data bus, OBD-II, vehicle diagnostics, GPS, telematics, telemetry, mobile Internet. Those are just some examples. You know, seemed like every few days, you think of another term to throw in and try to combine to get to some more relevant results.

Q And were you ever asked to take your results and

compare those to patents in the Omega portfolio?

A Yes, I was.

Q And do you recall what patents in the Omega portfolio you were asked to compare them to?

A Well, I was actually asked to look at all the Omega patents that were provided in a list from Omega.

Q So, Omega provided the list of patents to CalAmp?

A They did.

Q And do you recall what those patents -- were those tracker patents or vehicle bus patents?

A That list had both types of patents in it, the one that I'm referring to.

Q And did that help you narrow down your list of prior art?

A Relative to Omega, it did. We went and tried to look specifically at the Omega patents and see what art was relevant to those patents.

Q And did you do more in your search or was this kind of the end of your search at that point?

A So, you know, our search was not just relevant to the Omega patents. We were really looking to understand broader what -- what other IP holders were, that were out there. And, you know, this is what I'll call phase one, round one, you know, and we did this with a view of the Omega patents doing control of vehicle functions,

right, doing door locks and, you know, remote start.

Q Okay. You mentioned that that was phase one. Was there a phase two?

A There was a phase two.

Q And what did that entail?

A That entailed going back through all the IP we collected and trying to look at it for around the idea of basically reading data from the vehicle bus.

Q And what time frame do you think we're talking about now?

A This is a year or two later after the big first push, so it was probably -- probably sometime in 2012.

Q And were you ever comparing the prior art to the features of the LMU-3000 or the intended features?

MR. GILCHRIST: Your Honor, I'd object. This goes into expert testimony. This is lay witness.

THE COURT: I think he can say he -- the witness may say whether or not he compared, but not the results of the comparison.

A Yes. I did do a lot of deliberate comparison.

BY MR. KAUTH:

Q And what were the features that you were looking at in the LMU-3000?

A So in the LMU-3000, those things like its vehicle bus discovery process and its querying of data, as well

as, you know, our traditional LMU functions, things like, you know, reporting location and speed, information, geofencing.

Q When you mentioned traditional LMU functions, are those functions that existed in CalAmp LMUs prior to the LMU-3000?

A Yes. The LMU-3000 and LMU-3030 are essentially repackaging of our traditional LMUs, which typically take 12 volts, power and ground, they're hard wired into a vehicle, but they don't have direct bus connectivity. And something like a VPOD or VPOD2 is added to them or an AutoTap is added to them to make -- to be able to have connectivity to the vehicle bus.

And so, the 3000 and the 3030 are basically -- those two products together collapse into a smaller easy-to-install packaging. It just plugs on to the OBD connector, but we remove the physical inputs and outputs on it so that people don't have wires running from basically where their knee is under the dash all over the vehicle.

Q So, it just plugs in that little port?

A Plugs into that port. It can read data. And it has the traditional LMU functions of vehicle tracking and --

Q You mentioned in your previous answer an AutoTap. What's an AutoTap?

A So an AutoTap is a device that's very similar to the VPOD. It's basically a scan tool that has a serial port on the back that can provide data to a computer or some other device. It gives a -- it adds the capability to connect to a vehicle bus to another device.

Q And you mentioned that an AutoTap had been connected to an LMU. Is that something that CalAmp did?

A We didn't sell the AutoTap devices, but some customers had sought them out because they were interested in having that capability, so there were some customers that took the initiative to do that.

Q So, I believe you mentioned that there were features in the LMU-3000 that existed before at CalAmp, but CalAmp had never connected anything to the vehicle data bus before the LMU-3000, had it?

A Not with one of our products, no.

Q So how did CalAmp go about getting the engineering expertise to connect a product to the vehicle data bus?

A We sought out technology partners that we could license from, you know, including -- we inquired with Omega as well.

Q And did Omega offer any technology to CalAmp?

A Omega's technology, it was basically -- it's what you found in the patents. They wouldn't hand you any code or any other -- any software code or any other

designs. It was just the patents themselves.

Q So how did CalAmp get the technology to actually connect the LMU-3000 to the vehicle data bus?

A So CalAmp had taken a look, as part of our mergers and acquisitions programs, at the AutoTap division of B&B. B&B is a company an hour and a half outside of Chicago in Ottawa, Illinois, and they made this product called the AutoTap, as I said previously. It was a scan tool that had a serial port on it. And they were marketing that business unit for sale, and so we went and looked at it, investigated it.

While it was interesting, we decided we weren't ready to own that type of business, but we were interested in being in the space. And so, we worked out a licensing deal with them where they would give us technology and help us integrate it, and we added that to our traditional LMU capabilities and eventually the 3000 came out.

Q And I'm assuming CalAmp had to pay for that technology?

A We did have to pay for that technology.

Q And tell me the details of that.

A Well, so we paid B&B for some non-recurring engineering to help us with the integration. I think that was around $25,000. The agreement would spell that

out, I think, in more detail. And we also agreed to pay them on a per-unit basis. What they were doing is they had in their device -- in their AutoTap device -- a field-programmable gate array, FPGA, that they had designed and optimized. And they allowed us to use it, right, with their programming. So each one that they got or that we used, we were to pay them $7.00 per unit. Before we finalized the deal, they indicated that we needed to add 17 cents for some outside royalties, pass-through royalties, so we would pay them $7.17 per unit, and that was the rate for the initial -- at least initially.

Q You mentioned the 17 cents. Do you have an understanding of what that pass-through royalty was for?

A That pass-through royalty was to go to Bosch, which is a very large German technology company. I think it's spelled B-o-s-c-h. And they had been the innovators, inventors of CAN bus. CAN is short for Controller Area Network. And so, they got 17 cents for royalties for CAN bus know-how.

Q And once you incorporated the B&B technology, did the LMU have all the same features as an AutoTap?

A It had most of the features of an AutoTap. They made all the -- we had all the reading capabilities, but there were some, I think it's what you could say,

control functions we didn't implement.
Q And do you know what those functions were?
A Yeah. The ability to reset what's called the DTCs, the diagnostic trouble codes, on the vehicle. We were still wary of doing any type of control. But otherwise, it had all the other features of the AutoTap available.
Q And is CalAmp still working with B&B to produce the LMU-3000?
A For customers that want to use it. So our license continues, and for customers that want to continue with the 3000, we do continue to make it. But B&B decided that our interest in going global was too big of a strain on their limited resources.
And so, you know, we've agreed that we're not going to ask them to do any further development for us and that, you know, we would just use their product as is. This is something we reached early on. So yeah, we were still working with them, but they're not doing anything new for us. We're just making the product as needed and those volumes have been falling for the 3000.
Q So where -- in the LMU-3030, where does CalAmp get the data bus technology?
A So in the 3030, we get it from a company called Innova. Innova is a maker -- part of the largest maker of scan tools in America. They're very popular with the

do-it-yourself automotive hobbyists, you know, guys like me on the weekend who dare turn a wrench, and they sell their products in places like Auto Zone and Pep Boys, where it's hanging on the shelf and you can take it home and you can read codes from your car.
Innova also offers a service called Car MD. They've mainly been doing it through infomercials, which I find a very interesting way to try and conduct business. But basically they have a device, it's basically their scan tool, that will send data up to their server system. And they'll look at that data. And then, they'll say, oh, in plain English, this is what's wrong with your car. These are the parts that you probably need to fix the car. This is how much those parts should cost. Would you like us to place the order for you at one of these auto parts stores? Or here's some estimates from some friendly mechanics that we've pre-approved. Would you like to make an appointment for them to repair it? So it's an interesting evolution in the use of this type of data. That's basically who Innova is. They're long-term -- they're people that have been working in this auto diagnostic space for a very long time.
Q And did CalAmp enter into a license with Innova to obtain their vehicle bus technology?

A We did.
Q And did that license include a royalty?
A It did include a royalty. We agreed that we would pay them per unit $1.50.
Q And were there any payments besides the $1.50?
A Yes. There was some initial non-recurring engineering charges, because they needed to adapt what they had to something we could use. They didn't have an FPGA that they could just hand us. They had to try and make their software fit into the type of processors that we like to use.
Q And do you recall how much those charges were?
A I'd have to see the agreement. Depending on which project it was, I believe it was on the order of 75 to 150k.
Q And in addition to the ability to connect the LMU-3030 to the vehicle data bus, did you receive any other technology or support from Innova?
A We do.
Q What type of stuff is that?
A So Innova is there to help us bring on new model years of vehicles, as needed, or help us deal with, you know, any problems that we have with their technology. They're also -- you know, they're there to help us implement this type of technology in other countries,

in continents.
Q And do you know if the license to Innova -- I think you mentioned there was an up-front payment and there was $1.50 a unit royalty. Does that royalty -- how long does that last?
A Well, originally it was to go on as long as we were using the technology. We later struck a new deal. We had annual support payments that we were obligated to make, and so we basically bought out those support payments. And in doing so, we also wanted to be able to take control of the technology.
So while Innova was much faster and much more resourceful, we felt that, you know, to do things global we really would need to be able to have our hands-on on the technology, so we struck a new deal later.
We bought out the technology and the support, and we took control. We continued to make -- we continued to have royalty obligations for a four-year period after the restructuring of the deal.
Q And then after that, do the royalties end?
A The royalties end after four years.
Q So you mentioned that CalAmp partnered with B&B. They partnered with Innova. During your time at CalAmp, are those the first two times they ever went outside for technology?

A No, it's not the first time.
Q And has CalAmp previously paid third parties to obtain their technology?
A Yes, CalAmp has.
Q With regard to the specific LMUs we've been talking about today, the LMU-3000, the 3030, the 3050, and the VPOD and VPOD2, in addition to the respective B&B and Innova licenses, do you know if CalAmp has to pay anyone else licenses to manufacture those products?
A So for the LMU-3030, 3000, and 3050, if they have certain wireless standards in them, meaning if they use what's called HSPA, that's a technology that companies like AT&T use in their cellular networks or if they have CDMA, which is a technology that Verizon uses, then we have a royalty that we pay to a company called WiLAN that is for the use of their essential intellectual property that basically reads on those wireless standards, if they're in the device.
Q Getting back to your investigation, I think we left off at phase two. Was there a phase three in that investigation?
A I'd say there was a shorter phase three, because at some point it seemed that what we were being accused of in the patent suits were these vehicle bus discovery processes that, you know, we understood had been

standardized by the Society of Automotive Engineers, the SAE, and some of the publications like J1978 and those publications first came out, like, in the 1993 time frame.
Q And you mentioned standardized buses, is that something that came with the B&B technology?
A Yes. When we asked B&B how they went about determining which type of vehicle bus they were on --
MR. GILCHRIST: Your Honor, I'm going to object. Hearsay.
THE COURT: Bear with me for one second, please. All right. Sustained.
BY MR. KAUTH:
Q Do you have an understanding of how an LMU-3000 performs a bus discovery process?
A I do.
Q And what's your understanding?
A That --
MR. GILCHRIST: Your Honor, if this is just the same understanding he got from somebody else, it's the same objection.
THE COURT: Well, I think at this point the witness is being asked for his personal understanding as opposed to what he may have been told by third parties. So to the extent that Mr. Chen has the expertise, which

he has already discussed with the jury, then he can certainly speak to his own personal knowledge.
MR. GILCHRIST: Personal understanding, yes, sir.
THE COURT: Yes, sir.
A My personal understanding is that the discovery process in the LMU-3000 follows the process that J1978 lays out.
BY MR. KAUTH:
Q And were you familiar with J1978 prior to your dealings with B&B?
A Prior to my dealings with B&B, no.
Q And I think I cut you off. You were telling me about a short phrase three. Was there anything else that was included in that phase three of your investigation?
A I'm not sure what you mean or I'm not quite sure what you're asking.
Q Well, I guess, what happened next in your investigation?
A You know, in addition to my investigation, you know, we would seek the advice of our counsel in this area. We did that pretty much at times throughout since close to when we started the investigation process. Because while I have expertise in technology, I'm not a lawyer. So, you know, we also asked for the opinions of our

counsel as to what -- basically how they interpreted the patents for, you know, as it applied to our products as well.
Q All right.
MR. KAUTH: May I approach, Your Honor?
THE COURT: Yes, you may.
BY MR. KAUTH:
Q I'd like you to take a look at what's been marked Defendant's Exhibit 26. Are you familiar with that document?
A I am familiar with this document.
Q And how are you familiar with that document?
A I found this document on the IEEE library.
Q And can you remind me what the IEEE is?
A IEEE stands for Institute of Electrical and Electronic Engineers. It's basically a membership, an association for electrical engineers. And they maintain libraries. They conduct conferences. They produce magazines in various technology areas. And I'm a member.
Q And you say you obtained this from them. Can you tell me physically how did you obtain what's shown in Exhibit 26 from the IEEE?
A So, you know, I have an account I pay for on a monthly basis. If I logged into my account, it has in

the library section a search function similar to a Google or a Yahoo search. And I use a lot of those similar terms, the same terms that I used for the preceding patent searches, including Cellport, and it pulled up this document which had been a paper presented at one of the -- a technology conference in the space.
Q And so, you said it pulled it up. Does this mean you were looking at it on your computer?
A Yes. Initially, I looked at it on my computer screen.
Q And did you download a copy?
A I did download it.
Q And can you look through the remaining pages of Exhibit 26, and tell me if this accurately represents the copy that you downloaded from the IEEE website?
A It is the same paper.
MR. KAUTH: Your Honor, we move for the admission of Exhibit 26.
THE COURT: Any objection?
MR. GILCHRIST: Yes, sir. May I inquire?
THE COURT: Yes, you may.
CROSS EXAMINATION (Re Exhibit 26)
BY MR. GILCHRIST:
Q Mr. Chen, when did you download this?
A During the 2010/2011 search period.

Q You weren't at the conference where this paper was allegedly given?
A I was not at the conference. The conference was in -- around 2006.
Q And you don't know if this paper was at the conference? You only surmise it based upon what you found in 2010, correct?
A That's part of the publications from the conference or it's the journal of the conference, but I was not there.
Q You don't know if this paper was publicly disseminated back in that time frame, do you?
A Publicly disseminated in that time frame. It's part of the journal of that conference.
Q So that's a no?
A I believe it was published. It's part of the journal of the conference. That's what they do.
Q You don't have -- I'm sorry, what?
A I said, when they have these technology conferences they will publish the papers, all right? Those are what I guess they call the proceedings of the conference and so this is part of the proceedings of that particular conference.
Q You weren't at that conference, correct?
A That's correct.

Q You don't know if this paper, this particular paper, was disseminated at that conference, do you?
A I wasn't at the conference. I believe that it was presented. That's why it's in the proceedings.
Q But you don't know, do you?
A I know that it's in the proceedings.
Q You know it's in the proceedings in 2010?
A I do know it's in the proceedings that I downloaded in 2010.
Q But you don't know if it was publicly disseminated at or about the time of the date shown on the paper, correct?
A Well, my understanding is the paper was published at that -- at the proceedings. It would have been published at that time.
Q That's your guess?
A That's my understanding based on how proceedings papers work.
MR. GILCHRIST: Your Honor, I would object. This hasn't been qualified as a piece of prior art and, therefore, is not relevant.
THE COURT: Well, I'll sustain the objection as hearsay.
MR. KAUTH: Your Honor, could we have a sidebar, please?

THE COURT: Yes, you may.
[Sidebar.]
THE COURT: Okay. Help me -- I understand the idea if it's not published it can't be prior art, because it has to be disseminated for him to look at and use it as a prior art for obviousness. My main concern is under 803 how is this not hearsay? It's a record. It's not a business record. It's offered for the truth of the matter or it has no relevance so how does this get past hearsay?
MR. KAUTH: This is a record kept by the IEEE in their normal course of business of the proceedings that they monitor. He can testify that IEEE is a reputable source for these types of papers and it goes to --
THE COURT: But that's not a business record foundation. A business record foundation requires a records custodian with knowledge that it was made at or near the time, that it's based upon reliable information, that it's been maintained in the ordinary course of business and, therefore, as part of our record, it is reliable due to the system in place. He doesn't know if IEEE created this record, stored it properly.
My concern is the business records exception

requires the records of a business. This would be the witness of the business offers the record from that business. Alternatively, if you have a document that is certified. If you had something from NHTSA and you had a certified copy. If you had something from, you know, SAE, and it's certified. It's a governmental agency or a quasi-governmental agency and they certify it, then that gets past your hearsay problem. This is presumably an article by an engineer, and -- I would assume -- and. therefore, it would be hearsay. It's a statement by a declarant not here. So how do we get past the hearsay argument?

MR. KAUTH: It's not being offered for the truth of the matter asserted. It's being offered from what he located in the search and he passed on. He's not going to testify about the content of it, but it is what he found, what CalAmp relied on. Whether the data is correct goes to the weight of the matter. They can choose not to believe that IEEE actually knows how to archive its --

THE COURT: The problem with that is that just raises hearsay, because everyone could always say that every single document goes to weight. The point is it's either admissible because it's a business record and non-hearsay or it's not.

MR. KAUTH: But -- I'm sorry.

THE COURT: No, go ahead.

MR. KAUTH: We're not going to whether this technical content actually works. We're going to, does the IEEE represent that this is the paper that was published in 1996.

THE COURT: Well, the witness can certainly say, I did a search and found a paper entitled whatever the title is, dated the following, as something that I looked at. But if a document comes in as an exhibit and goes back to the jury, they're able to read it. And if they read it, they're going to see the content, which is purely hearsay. Let me -- any disagreement with the hearsay analysis?

MR. GILCHRIST: No, sir.

THE COURT: So my concern is that hearsay is a problem. It's a step -- obviously, I'm not lecturing you, but it's a step by step. And the first question in my mind is, is it hearsay. And if it is hearsay, then you're correct, that if it's not offered for the truth, but --

MR. KAUTH: I mean this is, in its present sense, his impression of when he was doing the search what he found, what he conveyed this as --

THE COURT: I don't think present sense

impression goes that far. Present sense impression is when you fly by me and I believe, wow, that person's speeding, all right. Otherwise, every single thing we perceive is an impression. Present sense is at the moment. I think that's taking it a little bit further -- a very creative argument, but I think it's clearly a little further than it can go. All right. You can ask him about the title and the date, but the document itself is hearsay, and that's the basis of the objection.

MR. KAUTH: All right. Thank you, Your Honor.

[End sidebar.]

DIRECT EXAMINATION (Continued.)

BY MR. KAUTH:

Q Mr. Chen, you mentioned you found this document on the IEEE website, and that it was the proceedings of a conference?

A Yes.

Q From the website, did you have an understanding of what conference this related to?

A A conference in the northwest called the Northcon.

Q And do you recall the search terms that you used that resulted in you finding this document?

A I know that I used Cellport as one of my key search terms when I was looking on the library, among others,

and so Cellport should have pulled this up since this is a Cellport labs paper.

Q All right. If you could reach to your stack over here and look for Defendant's Exhibit 10, please. And those should be in order.

A I have it.

Q And can you take a look at that document and tell me if you're familiar with that.

A I am familiar with this. It's the Braitberg patent.

Q And if it's easier, you can look on the screen. This document has already been admitted into evidence.

A Okay. At this size, it's not that legible. I think I'll stick to paper.

Q And you mentioned Cellport before. Do you know if this patent purports to be a patent assigned to Cellport?

A Yes. The assignee is Cellport Labs in Boulder, Colorado.

Q And how are you familiar with this document?

A Well, I had found this patent document during my searches in 2010/2011, because I deliberately searched for Cellport-related materials.

Q You mentioned that you had 300-plus documents, and you tried to narrow that down. Can you tell me, would this have been one of the documents in the 300-plus pile or the narrower pile?

A This would have been one in the narrower pile.
Q And if you could also reach over to Defendant's Exhibit 17, please.
A I have it.
Q And do you recognize that document?
A I do recognize it.
Q And how do you recognize it?
A It's a document that I found and downloaded, and it's another of the patents assigned to Cellport related to their concepts around the mobile web, which is the concepts discussed in the Northcon paper.
Q And you mentioned Cellport earlier in your testimony, that you were familiar with them and, I believe, contemplated an investment. Were you familiar with any of their products?
A I was familiar with some of their products.
Q And what products were you actually familiar with?
A So I was familiar with their universal car cradle product, which shows up a lot in the Braitberg patent. I was also familiar with the product they called the MSC-7910, I believe is the model number, which was kind of a self-contained MobileWeb GPS tracking unit.
MR. KAUTH: Your Honor, is this a good stopping point for a break?
THE COURT: That would be fine.

It's now -- let me look at the clock on my computer, since I never seem to get this right. It's almost 11:00, so we'll be in recess until 10 minutes after 11. I think it's a few minutes before 11. Thank you very much.
(Jury exits.)
The jury has withdrawn. Please be seated.
Thank you. We'll be in recess.
(Recess from 10:57 a.m. to 11:15 a.m.)
Could you get the jury, please.
The record should reflect the jury has returned. And we'll continue with the direct examination of Mr. Chen, when you're ready.
MR. KAUTH: Thank you, Your Honor.
BY MR. KAUTH:
Q Mr. Chen, I believe you testified earlier that Exhibit 10 was one of the patents you found in your search; is that correct?
A That is correct.
Q And do you recall the search terms that you were using when you came upon Exhibit 10?
A At least the term Cellport should have picked this paper up.
Q When you were doing your searching, were any of your search terms based upon features that you thought CalAmp

was going to implement in the LMU-3000?
A Yes. Some of the other variations of the searches were, yes.
Q What features do you think you included in your searches?
A GPS. Controlling door locks. Sorry. I searched on that, but that's not a feature of our device. You know, querying data, vehicle diagnostics, geofencing, speed reports. There are a lot of others. It was a very long process.
Q Do you recall if you ever searched for transmitter or receiver?
A I did. But more commonly, I would use cellular or CDPD when I did my search, since I expected that would be more common in the documentation than transmitter or receiver. That's more generic to me.
Q When you were doing your search -- if you could turn to Figure 15 of Defendant's Exhibit 10, please.
A Okay. I'm there.
Q And when you were conducting your search, was this one of the pages of the patent that you reviewed?
A Yes, it is.
Q When you find a patent, what's your normal procedure to review it?
A I will first read the cover page. I'll look at the

filing date and the date of the patent. I'll read the Abstract. I'll try and make sense of the drawings which typically will follow. And then, I'll pretty much keep on going through in sequence here, read the description of the patent, and I'll do that a little bit on the quick side 'cause I want to get to the claims. So then I'll read the claims, but then I'll always have to go back and read the main part of the patent to understand the claims better afterwards.
Q But you're not a lawyer, are you?
A I'm not a lawyer.
Q And have you had legal training in reading the claims?
A I have not had training in school, at a law school, but I've been trained on the job.
Q So, you've read the claims of lots of patents?
A I've read the claims of lots of patents, including my own.
Q If you could open up the folder that's marked Defendant's Exhibit 17, please.
A Are you going to want to come back to this drawing?
Q You can put that one back in the folder for now.
A Okay. Okay, 17.
Q And do you recognize that document as another patent that you found as part of your search?

A It is a patent that I found during my search.
Q And I think we talked earlier about you had the large stack of patents and the narrowed down stack. Where would this patent have fallen?
A This one early on would have been in the narrow stack.
Q And why would you have put it in the narrow stack?
A For a few reasons. One is, you know, I found -- I felt that the Cellport patents were -- and their art was pretty relevant, things that, you know, were pretty -- they got the future pretty close. Their products kind of anticipated the future pretty well.
MR. GILCHRIST: Your Honor, I have to object. That goes to the expert.
THE COURT: Sustained.
Please disregard the last answer.
BY MR. KAUTH:
Q You mentioned earlier you were familiar with some of the Cellport devices, and we didn't really get into that. Did you ever own a Cellport device?
A The company I worked for owned a Cellport device.
Q Which company was that?
A That would have been GTE.
Q And do you know which Cellport device it was that they owned?

A They owned the MSC-7910 and they also owned some universal car kits.
Q Let's start with the first one you mentioned that began with MSC. What kind of device was that?
A So it was a black box that had memory and a controller cellular connectivity interface to the controller area network, you know, or to a vehicle bus. It was programmable, kind of big by today's standards. But it was a box-enabled basically mobile website.
Q And why did GTE have such a device?
A Because for cellular carriers, next year was always the year of wireless data. When you think about cell phones, they used to be just simple flip phones and we used to struggle with send text and they got friendly. They basically became computers in our hand. And GTE, as a service provider, was always part of the evolution of wireless data. And so, you know, GTE was very interested in what Cellport was pitching.
Q All right. And if you could set Defendant's 17 aside. And I would like you to pick up Exhibit 24 from the folder. And do you recognize that document?
A I do recognize the document.
Q And what is that document?
A This is a glossy brochure of a NEOTech product that I had received at a CTIA wireless data show back in

1999.
Q So, let's step back. What's the CTIA wireless show?
A So, CTIA stands for Cellular Telecommunications Industry Association, and they used to have two shows every year. One was more infrastructure and phone focused. By infrastructure, being the bay stations, the towers, the antennas, and all the new cell phones coming. And then there was a smaller show, roughly six months apart, that was for the emergence of wireless data. In 1999, it was held in San Jose.
Today the CTIA show happens once a year and it's basically a CTIA wireless data show. Wireless data is now dominant -- the dominant theme in their show. And it's where people in the industry come together to market or to network with each other or to look for new products and new partners.
Q All right. And you mentioned that you obtained this at that CTIA show in San Jose in 1999, I believe; is that correct?
A That's correct.
Q And how did you obtain this?
A I received it after talking to the people in the NEOTech booth 'cause I was interested in tracking products. This was related to my starting of Aircept, the vehicle tracking company, and we were trying to

decide whether to make our own product or to source products.
Q All right. So was it a brochure that you picked up from I think you called it NEOTech?
A Yeah. It was a brochure that kind of, it was folded over and some of the pages, like, were longer than the other pages. And then, yes, just part of it -- they gave me the brochure and it made its way eventually to my garage.
Q So, you had that brochure since 1999?
A Yes. I'm a little bit of a pack rat, I hate to admit.
Q And this doesn't feel like the actual brochure. Is this a copy of the brochure? Or how did this document come into being?
A I brought it to my office, and I made a PDF document. Our copier has a scan function, and I scanned it. So if you look, like, at the second page, it looks kind of weird, because there's -- it's folded over and the longer page extends beyond, but I scanned this in a page at a time, manually.
Q And is this an accurate copy or does it accurately depict the brochure that you had obtained in San Jose?
A It does. Except for the confusion of the pages that are folded over, that might be a little bit confusing

'cause you have to unfold the page to better focus on the page but, yes, this is what I scanned and what I had gotten from the show.

MR. KAUTH: Your Honor, we move to admit Defendant's 24.

THE COURT: Any objection.

MR. GILCHRIST: No objection.

THE COURT: It's admitted.

MR. KAUTH: If you could put Defendant's 24 up so the jury can see what we've been talking about.

BY MR. KAUTH:

Q On the front page there, what is that white square, kind of top center?

A That's the business card of one of the people that they had at the show, Tammy Morrison, who was their VP of sales and basically one of the co-founders. She's the wife of the president.

Q Okay. And if you could please turn the exhibit to the second page, can you repeat again about what you were saying about the edge from the scan so the jury can see on the picture what you were talking about?

A Sure. So on the left-hand side --

Q I think you can probably mark it with your finger on that screen, if you have to.

A Okay. Do I have to push a button before I can mark?

MR. KAUTH: May I approach, Your Honor?

THE COURT: Yes, you may.

(Counsel assists witness.)

BY MR. KAUTH:

Q And can you mark what you were talking about, please?

A If I can figure out how to operate this properly.

Q I think you need two hands on the screen. All right. I think you're marking now.

A That's the rough border of -- so things to the left are another page, so to the right is that particular page, page two.

Q And why, back in '99, were you interested -- I know you mentioned it was for your company Aircept, but why were you interested in this particular product?

A Because it was a tracking product and it also, you know, seemed to have a good form factor, a lot of different modules that could be added to it so it was somewhat modular. And it also had some capability to connect to a CAN bus. And, you know, our founder, the main founder of Aircept was a -- he's an auto nut, so besides wanting the fastest speed of the day, he was interested in anything else he could know about his car, and so if he could get information about his car he thought that could be pretty interesting.

Q And why did CAN bus seem important to you, in particular?

A Because it was a way to get data out of European vehicles at the time. And he tended to drive more exotic European cars.

Q So you thought this might be able to connect to his current car, then?

A Yes.

Q And did you end up purchasing one of these devices?

A I think he purchased one.

Q If you can -- it might be easier on your paper copy -- flip through. Do all the pages there match the brochure you had?

A Yes, it matches, though, I -- it looks like I double scanned one of the pages.

Q So it's got an extra page, but nothing's missing?

A That's correct.

Q You mentioned your colleague or your boss at Aircept liked to track the fastest speed of his day. Do you recall if this product described in the brochure could track the fastest speed of the day?

A It could definitely report -- it could report speed information.

Q And is that shown anywhere in the brochure?

A If you --

MR. GILCHRIST: I'm going to object, Your Honor. We're getting into his analysis of it.

THE COURT: Well, the question simply is, is it in the brochure. You may answer that question.

A So on the third page it talks about speed monitoring and it talks about logging violations over the user selected speed threshold. And also where -- in the document, kind of a feature table towards the end, it talks about speed data.

BY MR. KAUTH:

Q I believe you mentioned the company name was NEOTech. Were you familiar with any other products that NEOTech made?

A You know, NEOTech was also trying to use their devices in an overall solution. And so some of the things they were trying to do were to track the vehicles on airport -- on the tarmac, all right, running around and servicing airplanes, so they were trying to use their devices to provide overall tracking solution as well.

Q All right. And if you could turn to the last page of this document, down at the bottom, do you see that copyright date listed on the bottom left?

A I do see that.

Q And what does that say? It's kind of fuzzy.

A It says, copyright 1999.
Q And you said you obtained this document in 1999?
A That's correct.
Q If you could put that one back in the folder and reach over to the stack to Defendant's Exhibit 11, please. And do you recognize that document as being one you found during your search?
A Let me just -- it is.
Q And do you see on the front cover there, it says assignee, Prince Corporation. Were you familiar with the Prince Corporation?
A I had some familiarity with the Prince Corporation at the time.
Q And how were you familiar with the Prince Corporation?
A Mainly, two ways. One is I was curious about the universal garage door opener in my car, I guess what's called the HomeLink system, and so I -- because I thought it was pretty cool technology, and I tracked it down to being made by Prince Corporation.
The other thing is, you know, since GTE had worked on OnStar, I was interested in -- the General Motors system, OnStar -- I was interested in this type of technology that's in the Bambini paper -- or patent. And I had seen a Popular Science article that described

an OnStar-like product that Prince was offering.
Q All right. And as part of your investigation where you found this patent in your search did you review this patent in its entirety?
A I did, several times.
Q If you could turn to Figure 4, is that one of the figures you reviewed?
A Yes, it is.
Q And I'm going to call them the big stack, referring to your 300-plus patents, and the short stack you kind of narrowed down. Would this be in this big or the short stack?
A Short stack.
Q All right. If you could take a look over in the folder at what's been marked Exhibit 34, please.
A Yeah, I think we should call the short stack the shorter stack. It's not that short.
Q How many patents do you think were in your short stack?
A Twenty. Got it down to maybe around 20.
Q And I note this is a pretty thick patent. Do you recall if you reviewed this patent? Maybe I could ask a better question. Did you review Figure 5 of this patent?
A I was just making sure. Yes, I reviewed this patent. And as part of what I do, I look at all the

figures. So, yes, I have reviewed Figure 5 of this patent.
Q And up at the top of the patent it says sheet 5 of 62 on the figure we're on there. Did you review all 62 sheets of drawings?
A Yes, unfortunately.
Q And all of the text as well?
A All of the text as well.
Q And on this patent would this have been in your shorter stack or in your larger stack?
A This would have been in the shorter stack.
Q And was this still of interest to you because it was assigned to the Prince Corporation or were there other reasons?
A Because of Prince, and also because it described, you know, OnStar-like features.
Q All right. If you could put that one aside, please, and turn to Defendant's Exhibit 32.
A Okay. I have it.
Q And is this another one of those Prince Corporation patents?
A It is. It's one of their shorter ones.
Q And is this one that you reviewed as part of your investigation?
A It is.

Q And is this one that you actually located yourself as well?
A It is.
Q And so far all the patents we've reviewed, are those all patents that you located yourself?
A They are.
Q And did you review Figure 1 of this patent?
A Yes. It's nice and simple.
Q How about Figure 2?
A Yes. I did review Figure 2.
Q All right. If you could set that aside, please. And please turn your attention to Defendant's Exhibit 30.
A Okay. I have it.
Q Do you recognize that document?
A I do recognize it as what I call the Johnson patent.
Q And is that another patent that you located?
A Yes, it is.
Q And I notice it's assigned to Mobile Security Communications, Inc. Are you familiar with that company?
A I'm familiar with that company from my discussions with the inventor, Sam Johnson. I wasn't familiar with them prior to that.
Q And when did you have a discussion with Mr. Sam Johnson?
A Probably about three years ago.

Q And any other understanding of -- or familiarity with Mobile Security Communication, Inc.?
A They, you know, were a company that wanted to make a vehicle tracking and security product. And my understanding is that the brother-in-law of Mr. Flick left Omega to work for this company.
MR. GILCHRIST: Objection, Your Honor. That's pure hearsay.
THE COURT: Sustained.
BY MR. KAUTH:
Q And in your larger and smaller stack, where did you place the Johnson patent?
A In the shorter stack.
Q I'd like you to take a look at what's been marked Defendant's 12, please.
A Okay. I have it.
Q And are you familiar with that document?
A I am familiar with this document.
Q And what is your understanding of what that document is?
A This is the J1978 specification. This one looks like it was published in 1994 by the Society of Automotive Engineers, the SAE.
Q And how did you become familiar with this document?
A I sought it out after B&B indicated this is how they

perform vehicle bus discovery.
Q All right. And when you say you sought it out, what do you mean by that?
A I had to go to the SAE website and purchase the document. It's not something that was free, like a patent publication.
Q And is what's shown in Defendant's Exhibit 12 accurately depict what you purchased from the SAE?
A Yes, it is.
Q You say you did that on the Internet?
A Yes. Yes. I didn't travel to Detroit or Pennsylvania for this.
Q Do you recall when you purchased the J1978 publication?
A 2011.
Q All right.
MR. KAUTH: Your Honor, we move to admit Defendant's 12?
THE COURT: Any objection?
MR. GILCHRIST: Objection based upon hearsay.
THE COURT: All right. Is there a foundation for the hearsay? It's not a court's statement offered for the truth of the matter. What exception to hearsay does this fall under?
MR. KAUTH: This is to show the standard that

B&B identified that the device was following.
THE COURT: All right. But the paper itself is hearsay. What is the exception to hearsay for the paper?
MR. KAUTH: That this identifies the standard. It's not for the truth of the matter in the standard. It's for this is the document that B&B pointed him to. And it's evidence of the document that they identified. And it's also a business record of the SAE kept in their business and obtained directly from the SAE. It also qualifies under the ancient records rule.
THE COURT: This witness is not competent -- I don't mean he's not competent -- legally not competent to give a business record foundation for SAE. How do you determine --
MR. KAUTH: He does have a chain of custody from the custodian at the SAE from whom he purchased it on the Internet. And it is more than 20 years old and depicts the markings indicating that it is an accurate document from the SAE, including the SAE logos, and being obtained directly from the SAE.
THE COURT: All right. I'll overrule the objection and allow for the limited purpose of establishing the standard that B&B directed the witness to.

The paper itself, ladies and gentlemen, is not offered for the truth of the matter asserted. In other words, the content of the paper is not to be considered as being offered for the truth of the matter. It's being offered by the defense for more limited purposes articulated by defense counsel.
BY MR. KAUTH:
Q And was your understanding that the B&B OBD layer that was implemented in the LMU-3000 followed the parameter set out in SAE J1978?
MR. GILCHRIST: Objection. Calls for hearsay and --
THE COURT: Sustained.
BY MR. KAUTH:
Q Do you have an understanding of how the CalAmp LMU-3000 performs bus discovery?
A Yes, I do. I have -- I understand that it follows the specification of J1978. And I have seen it on a --
MR. GILCHRIST: Your Honor, this is him getting into the expert area.
THE COURT: Yes, sustained.
MR. KAUTH: Your Honor, may we approach?
THE COURT: Yes, you may.
[Sidebar.]
THE COURT: Okay.

MR. KAUTH: He was also designated under 30(b)(6) as knowledgeable on the CalAmp products so he's entitled to testify to how they actually operated.

THE COURT: I think you would need to lay a foundation as to the personal perception. But my concern with some of these objections beyond the standard of hearsay is that the predicate's not being laid with this witness -- whether this witness has personal knowledge of how the product works. He may have said that kind of generally, but I think in order to put a question to him about how this particular aspect of the device works he needs to be asked, how do you know, because what I've heard was that he's in mergers and acquisitions and has some technical knowledge. And he's using it perhaps just colloquially, but he keeps saying, it's my understanding, which seems like it could be coming from a number of sources where there is no personal knowledge which is not proper; hence, the sustained objections.

On the SAE paper, it was offered not for the truth. So if he now goes back and says it comports, he's just run afoul of that limited instruction that it's not offered for the truth. It's offered simply to show what he was directed to, which is why you offered it.

MR. KAUTH: But he is entitled to -- if I could show the personal knowledge, he is entitled to state how the LMU devices work.

THE COURT: Yes. If he understands that he is a person who is talking about his own perception then he can speak to how the device works so long as he's not getting into comparison about the prior art and accused devices --

MR. KAUTH: Okay. My concern is he has identified this is the document that B&B pointed to him. If later on he testifies that the 3000 and the 3030 do, in fact, follow the SAE J1978, that's an independent thing, if he has the personal knowledge of it --

THE COURT: And how would he know if this document is not being offered for the truth of the matter? That's the problem I have is when I allowed it in, it was under the representation he's not offering it for the truth. It's simply to say this is what B&B directed him to. If he now says it comports --

MR. KAUTH: Okay.

THE COURT: -- then that document is improperly admitted.

Is there anything you want to add, Mr. Gilchrist? I'm sorry.

MR. GILCHRIST: No, that's all right. I think

the Court's right on it. He's trying to back door in the SAE specifications.

THE COURT: I'll leave the adjectives to you guys.

[End sidebar.]

BY MR. KAUTH:

Q Mr. Chen, do you have personal knowledge of how the LMU-3000 operates?

A I do.

Q And how have you obtained that personal knowledge?

A As part of this case to verify things I have met with some of our engineers in their engineering lab and they showed me on their bus simulator and message reader what was going on. And they showed me how it worked, what messages flowed and when things stopped so I could see.

Q So you've seen firsthand the messages being displayed on a screen?

A Yes.

Q And can you tell me what this apparatus looked like? Was the LMU-3000 plugged into this -- something?

A Yes. The LMU has -- so this apparatus has, like, an LP2 connector, all right, and you plug this in. And then, you know, it has the ability to essentially sit there, and the device would basically behave like

the vehicle's diagnostic system would and you could see the data flowing on a screen, all right, so you can read it.

Q And what did the data look like? Was it pictures, characters?

A Characters, not pictures.

Q And what did those -- can you give me an example of some of the characters you saw?

A Yeah. So it was letters and numbers, right, related to the queries. And there was indication, you know, as to, you know, which type of bus the test equipment was emulating.

Q And do you recall in the test you were running what type of bus the test equipment was emulating?

A Well, I had them do it for all six of the current bus types that are available, starting with CAN 11 bit.

Q Let me make sure I understand correctly. They hooked up the LMU-3000 to this testing device. And it was set to emulate a CAN 11 bit bus. And you observed something on the display. Is that accurate?

A Yes.

Q And do you recall what you observed on the display when they had it hooked up to the CAN 11 bit bus?

A So when it was hooked up to the CAN 11 bit bus, our device always starts on CAN 11 bit. So it sent out a --

just as the document calls it -- out a mode 1 PID zero query message. And there was a message that came back so our device knew, okay, we're on CAN, and it would stop going. So that was the first iteration, all right. And then, I had them pull the device off, give it a hard power reset, and switch to the next of the six ones and plug on, and so the device would send an initial message. Didn't get anything back, so it would try the next message. And this time it would get something back.

Q Now, when you say it would get something back, do you recall what it got back? Was there a display of that?

A There is a display of it. I mean, I think, you know, for us we're just looking for some intelligible message, all right, because we're just looking for whether we're on the correct electrical bus type or not. It's not the content that's important to us at that point. It's just are we communicating in the right language, essentially.

Q Are you familiar with the vehicle bus parameters that the LMU-3000 is able to obtain when connected to a vehicle data bus?

A I am. They're documented.

Q And when you say they're documented, how are they

documented?

A We have user guides and other reference documentation for customers to use.

Q And that lists all the parameters that the LMU-3000 can obtain?

A It does.

Q Is there a similar documentation for the LMU-3030?

A There is.

Q And how about for the VPOD?

A There is.

Q And for the VPOD, would those be the same parameters as for the LMU-3000?

A Yes. The VPOD would be the same as the 3000 'cause that uses the B&B technology. And if you're interested, the VPOD2 uses the Innova technology that's in the LMU-3030.

Q And for the purposes of what we're talking about here, does this LMU 3050 use the same parameters as the LMU-3030?

A It does.

Q Do you know if vehicle speed is one of those parameters that the LMUs can obtain over the bus?

A Yes, they can obtain it.

Q If you could please turn to Defendant's 28. And do you recognize what that document is?

A This is a patent by what I call a Nathanson patent.

Q And I see this one's assigned to someone called Transcontech Corporation. Are you familiar with them?

A I'm not that familiar with them.

Q Could you take a look at Figure 1, please, and tell me -- well, first, is this a patent that you found as part of your search?

A It is.

Q And did you review this patent?

A I did. Glad it's one of the shorter ones.

Q And as part of your review, did you review Figure 1?

A I did review Figure 1.

Q And we've been talking a lot about if would you put this patent in your shorter or your larger stack. Which stack would you have placed this patent in?

A Into my shorter stack.

Q And if you could turn to Defendant's 27, please. And do you recognize this document?

A I do. It's what I call the Lang patent.

Q And this document is assigned to InfoMove.com from the face page. Are you familiar with that company?

A I am not familiar with that company.

Q Please turn to Figure 1 of this patent. Did you review this patent as part of your search or investigation of this patent?

A I did. There's some typos on this page.

Q Can you point out the typo for me?

A If I can point, in the upper left corner of the drawing, it says it's an OBO-II connector. I'm pretty sure they meant OBD-II connector. And a little bit further down, number 14, what they call a Transistor Device, they've corrected it for it to be a Translator Device.

Q If you could turn to the last page of this patent, please. Does that show the correction of one of the typos you pointed out?

A Yes, it does.

Q And did you review this patent in its entirety as well?

A I did review it in its entirety.

Q And was this going on your shorter stack or your larger stack?

A Shorter stack.

Q We've gone through quite a number of patents today. Is it accurate that you told me each of the ones we looked at would have been put in your shorter stack?

A Yes.

Q And for each of those patents that we've looked at, did you review the patent in its entirety, all the figures and all the text?

A Yes, in their entirety.
Q And for some of them that was probably multiple times?
A Yes. I think for all of them it would have been multiple times.
MR. KAUTH: Your Honor, may I approach?
THE COURT: Yes, you may.
MR. KAUTH: Oh, I'm sorry.
May I approach the witness?
THE COURT: Yes. I understood what you meant.
BY MR. KAUTH:
Q Could you please take a look at Exhibit 71.
A Okay. I have it.
Q And are you familiar with that document?
A I am familiar with that document. I read it.
Q To make sure I tell the whole story here, let's go back to your search for a brief moment. I think we ended at phase three of your search when you mentioned it was kind of an iterative process. Did more occur after phase three?
A Yes. In a more limited way than, you know, the first -- the earlier phases. You know, not as many hours at a time but, yeah, there was more searching going on to see if there's anything we may have missed.
Q And in that additional searching, were there new

parameters you were using or how was that different from your previous searching?
A There were probably some new parameters, and I probably repeated some of the earlier ones, too. My thought is some of these search engines, they get tweaked. They may come up with different things the next time around.
Q Was your investigation kind of a fixed project or more of an ongoing project?
A I'd say it's probably ongoing. No one's told me that I'm done. But it's not getting nearly the attention that it was before from me.
Q I don't recall from your earlier testimony, who directed you to perform this search?
A The direct instructions came from Garo Sarkissian, who is my direct supervisor at CalAmp. He is now the senior vice president of corporate development, but it's a decision that was made by, I guess, what we call the executive team.
Q And did you at some point complete your search or report back to Mr. Sarkissian that you were still working on things or --
A I would give him updates as to what my thoughts were. As things progressed, you know, as we found more art, as we had better understanding of the different

patents in the space, you know, I would just continue to give him updates on, you know, what my current thoughts were.
Q Did you ever provide a report to Mr. Sarkissian that you had completed the search?
A I don't know if I told him I completed it, but I showed him what we did, right, that included looking at all of the patents that Omega had provided, that Bill Duffy had provided and, you know, what our analysis was, you know, at that point -- at several points along the way. But like I said, I'm not sure I've ever -- I haven't closed the door on the search necessarily. It's still -- we're still in this marketplace doing these types of products so, you know, we have one eye open.
Q New patents might pop up?
A Sure.
Q Did you ever provide either the larger stack or the shorter stack to anyone else at CalAmp?
A The shorter stack went to some other people internally. The larger stack was available to them, but I don't recall anyone deliberately looking at the larger stack.
Q And were you ever asked to provide a report of your findings?

A Yes. I mean, not as formal as reports used to be, but, yes, summaries and statuses.
Q And did you report those findings to someone?
A Yes.
Q And to whom did you report those?
A I reported them to Mr. Sarkissian.
Q And after you reported your findings did CalAmp take any further action with respect to your searching?
A Sure. You know, we also wanted to know what the opinion was of our counsel as to, you know, what they thought of, you know, the patent landscape and, in particular, the Omega patents and so, you know, we asked for opinions along the way.
Q You asked your counsel for opinions?
A Yes.
Q And did your counsel provide opinions?
A Counsel did provide opinions.
Q Were those opinions oral or written?
A Initially oral, and at some point later we asked for a written opinion -- opinions.
Q Do you recall when the oral opinions were provided?
A The first ones would have been late in 2010.
Q And were you a recipient of that oral opinion or was it someone else at CalAmp?
A I have been a recipient of oral opinions.

Typically, we would conference call in on the speaker phone Mr. Sarkissian, and so he would also hear the opinion of our counsel.
Q And you mentioned multiple oral opinions. How many total do you think there were?
A There were probably three or four times, but since there's multiple patents involved -- 'cause you have to multiply the number of patents by the number of times to get the number of opinions.
Q And did you have an understanding of what your outside counsel found?
A Yes, I did.
Q Let's split this up. With respect to the '876 patent, do you have an understanding that counsel provided an opinion as to either the validity or the infringement of that patent?
A I do.
Q And did counsel also provide a written opinion with respect to the '876 patent?
A Counsel did. That's Exhibit 71.
Q And have you seen Exhibit 71 before?
A I have seen it before.
Q Did you receive a copy of the written opinion?
A I received an electronic PDF and I went to counsel's office to pick up I guess like a box, banker's box, full

of opinions, and I brought them back to my office in Irvine, California.
Q Are you the keeper of these opinions for CalAmp?
A I am not the keeper. My office is not as big as our general counsel's office, so I make him keep it.
Q If you could turn to Exhibit 73, please.
A Okay.
Q Do you recognize that document?
A I do recognize it.
Q And what do you recognize that to be?
A It's an opinion provided by -- a written opinion provided by counsel.
Q Do you have an understanding whether there was an oral opinion provided by counsel prior to the written opinion provided by counsel?
A There were several oral opinions provided by counsel prior to the written opinion.
Q And were you the recipient of any of those oral opinions?
A Yes, I was.
Q Based on the oral opinion, did you have an understanding whether counsel believed the LMU-3000 infringed the '885 patent?
A Counsel's opinion was that it did not --
MR. GILCHRIST: Objection, Your Honor.

It calls for hearsay.
A -- infringe.
THE COURT: Hold on for just a second, please.
MR. GILCHRIST: It calls for hearsay.
THE COURT: That's sustained.
BY MR. KAUTH:
Q Can you tell me who else at CalAmp received copies of the opinion?
A Garo Sarkissian and Steve Moran. Steve Moran is our general counsel.
Q And did you ever meet with Mr. Moran and Mr. Sarkissian concerning the opinions?
A I did.
Q And did CalAmp take any action based on receiving the opinion from counsel?
A We reviewed the opinion, but we did not change anything with our product.
Q Let's go back to the oral opinion.
THE COURT: Would you let me know -- and I don't want to cut you off. Would you let me know when it's a convenient breaking time for lunch? We have some flexibility, so whenever it's convenient it's fine.
MR. KAUTH: Now is fine, Your Honor.
THE COURT: Thank you very much. It's ten minutes after twelve. We'll come back at ten minutes

after one. Thank you. Enjoy your lunch.
(Jury exits.)
THE COURT: The record should reflect the jury has withdrawn. We're in recess until ten minutes after one.
(Lunch recess from 12:10 p.m. to 1:10 p.m.)
THE COURT: Is there anything to take up before we call the jury?
MR. KAUTH: Your Honor, I'm going to be moving to admit more of the opinion letters and wondered if we want to deal with that before the jury comes back in.
THE COURT: Yes. Under what basis would an opinion letter be admissible?
MR. KAUTH: Our position here is that to prove willful infringement there's the two-part test that you referenced earlier, and it comes down to was it reasonable to rely on the opinion received. And the case law has said in the past, even if the attorney was wrong, if it was reasonable to rely on it, there is no willfulness. So that's the definition of it doesn't matter about the truth of the matter asserted. It is was it reasonable to rely on what you received.
THE COURT: And I agree with that. My concern is that under 801(d)(2), an opposing party's statement may be offered against the opposing party if it was made

by the party in an individual or representative capacity, is one that the party has adopted or believed to be true, or was made by the party's agent.

So a lawyer would be perhaps an agent of a party, but it's not being offered against the opponent, so it would be a -- my concern is it's a hearsay statement. The statements we have in this case come from a lawyer who is a partner in the law firm to a lawyer who is a -- working within CalAmp's organization regarding his opinions of non-infringement due to obviousness. Those statements by the lawyer -- I could find his name. One second here.

MR. KAUTH: I believe you're referring to Garo Sarkissian. He is the VP, not a lawyer.

THE COURT: Correct. So the opinion by the lawyer -- David Bailey in Exhibit 71 is the author of the opinion and he's a partner in a firm who writes the letter to the CalAmp attorney on the issue of obviousness relative to the '876 patent.

In Exhibit 73, we have the same opinion relative to the '883 patent. My concern is that these are out-of-court statements offered by this witness, who is not the author, relative to statements made by Mr. Bailey for the truth of the matter asserted.

If the plaintiff was offering these letters

because they believe there was something favorable to them, it would fall under the 801 exception that I just identified, because it's the statement of a party opponent. But when the party offers it in their own behalf, there is no exception to hearsay I'm aware of. So my question becomes why isn't the lawyer testifying to his or her opinions?

MR. KAUTH: I can put him on, if we want. He's a short ride away. But I think the Federal Circuit case law in the Ortho case is quite clear that here it really is, was it reasonable to rely on it and it is admissible under that basis as did they receive an opinion, did they rely on the opinion --

THE COURT: I agree with you.

I take a little bit different view of the approach. My approach is maybe simplistically linear when I look at what's the rule of evidence and allow the piece of evidence? Is a competent witness offering it? If no, you don't pass go. If there is a competent piece of evidence and the competent person is offering it, relevance. If it meets all those tests, then it comes in. If it doesn't, it doesn't.

So this witness, Mr. Chen, is being asked about opinions that he did not give and they're being offered for the truth of the matter, and it's hearsay.

So my concern is even though it may meet the relevance prong that you've identified very correctly, how does it come in through this witness?

MR. KAUTH: It falls under a hearsay exception, because it's not being offered for the truth of the matter asserted.

THE COURT: I couldn't disagree more with you.

MR. KAUTH: It's being offered to satisfy the two-part test.

THE COURT: But if it's not offered for the truth of the matter, it's not relevant.

MR. KAUTH: The Federal Circuit has said it doesn't even matter if the attorney is wrong in the opinion asserted.

THE COURT: I understand that.

MR. KAUTH: It doesn't matter what the truth of the matter asserted is. It's did they rely on it, and was that reliance reasonable.

THE COURT: Well, the Federal Circuit is being a little more nuanced than that. They're saying that if a lawyer gives an opinion that happens to be incorrect -- they're just wrong, it's their opinion -- and if they're wrong, the fact that the client relied upon this incorrect opinion is evidence of a defense, because how does the client know? They're relying on their lawyer.

That's different than saying that the opinion still is not being offered for the truth of the matter. It may be factually incorrect or legally incorrect, but it's still being offered for the truth or it's simply not relevant. So I would think this witness can't meet the foundation under 803 -- or 801, rather.

MR. KAUTH: We posit that it's being afford for whether the reliance was, in fact, reasonable. I mean, here, I think another hearsay exception would be under the business records, he testified that he did receive it. He reviewed it as part of his job at CalAmp, and it was kept in CalAmp's normal part of business. Although Mr. Moran is the direct custodian, he is a person with access and with knowledge of the document.

THE COURT: All right. Let me hear from the plaintiff and see what their position is. If we do have the attorney here who can speak to it, the actual witness, the author, then that might be the most direct route, but --

MR. GILCHRIST: We completely --

THE COURT: -- I may be interjecting myself unnecessarily.

MR. GILCHRIST: I agree that this is a hearsay document. He got in the evidence that he needs for the

purposes of his willfulness argument, but he's trying to get the document in for the purpose of the truth of the matter so that he can present it to the jury and say, look at all this analysis that was done. The evidence has come in that he asked for an opinion, got an opinion, the document we have here is a document created after the lawsuit was filed. It was created in 2014. And it's strictly offered for the truth of the matter, as an analysis of the patents and the claims.

THE COURT: All right. The point that's embedded within what I just heard from Mr. Gilchrist is an additional point that I failed to spend time on and that is the letter, if it comes in, is not just a statement by a lawyer. I've read the letters, and they have -- and this is not a criticism. It's an observation. They have copious detailed descriptions of how one construes a claim, how obviousness is determined, and how the attorney reaches a decision in this case. That sort of testimony, if the lawyer's not been disclosed as an expert, A, invades the providence of my role, which is to give them the law and, B, is probably -- not probably -- is clearly improper opinion by a lay witness.

I think what a lawyer could say is that I had an opinion that I rendered that I gave to the clients

and that I think it was non-infringing, period, because that goes to the willfulness component. But the letters themselves contain detailed explanations, including case law, statutory citations, how to construe claims, how to construe obviousness, the interpretation that the party has and that goes far beyond what he would be permitted to testify to, if he testified live. And it also goes beyond the role of any witness in the case, as the law comes from me, as I've told them over and over.

So it seems to me that the letter themselves are hearsay. The content has to be truthful or it's not particularly helpful. It contains information that is prejudicial in the sense of giving legal advice to a jury that they're not entitled to get from a party outside of myself. But I still think that you're permitted to put in the fact that there was an opinion obtained and provided to the client upon which they relied without getting into the details

The lawyer, the attorney who authored the opinions, would be non-hearsay if properly disclosed in your witness list, can come in and say, I gave an opinion that I didn't think it infringed, and that's that, and they relied on that either correctly or incorrectly to their own benefit or detriment.

MR. KAUTH: All right. We did disclose

Mr. Bailey on our original witness list, however he was not on the short list of intended witnesses.

THE COURT: Any objection to Mr. Bailey testifying?

MR. GILCHRIST: Yes, Your Honor. We prepared for this case as identified by the Court and required by the witness list identified.

MR. KAUTH: And I believe he was on the pre-trial witness list, not just the one we did about three weeks ago.

THE COURT: I don't see where there's prejudice to the plaintiff if the testimony of Mr. Bailey is limited in the manner that I described. I'm testifying as an attorney. I was asked to look at this. I gave an opinion -- that I gave them the opinion that I didn't think they were infringing, period.

I don't know where that leaves the plaintiff in terms of cross examination 'cause obviously you're not going to want to open the door as to why he got there, but certainly the opinion was not sent to the PTO and approved by them. It wasn't sent to anyone else. It's an in-house opinion entirely. There's been no outside vetting to determine whether it's correct or incorrect.

And I think that would be proper cross

examination, that this is your opinion that you were paid to give, it didn't get reviewed by the Patent and Trademark Office, there's no outside independant party who agreed, and that we stay outside the four corners of the opinion. Fair enough?

MR. GILCHRIST: Yes, sir.

THE COURT: All right. Anything else?

MR. KAUTH: No, Your Honor.

THE COURT: All right.

Let's have the jury, please.

(Jury present.)

The record should reflect the jury has returned, the parties are present, and we're continuing with the direct examination of Mr. Chen when you're ready.

MR. KAUTH: Thank you, Your Honor.

DIRECT EXAMINATION (Continued.)

BY MR. KAUTH:

Q Mr. Chen, before the break we were speaking about some oral and written opinions that CalAmp received from counsel. Do you recall that?

A I do recall that.

Q I think we left off on the second opinion. Could you turn your attention to Defendant's Exhibit 74?

A I have 74.

Q And do you recognize what that is?
A I do recognize it.
Q And what is that?
A It's a written opinion regarding the invalidity of the '727 patent.
Q And was that opinion provided to CalAmp?
A Yes, it was.
Q And when was that opinion provided to CalAmp?
A In late June of 2014.
Q Could you please turn to Exhibit 75. Do you recognize that document?
A I do you recognize the document.
Q What is that document?
A It is a written opinion of invalidity regarding patent number 8,032,278.
Q And did CalAmp receive a copy of that opinion?
A Yes. We did receive a copy of it.
Q Do you have an understanding whether these opinions were the written opinions we've just discussed in Exhibits 71, 73, 74 and 5? Do you have an understanding whether those were independent from oral opinions you mentioned earlier?
A Were they independent? No. I think they were basically a culmination of the understanding of counsel along the way. So this is a -- the first time we

requested it all in writing, but it should have -- it should reflect the understanding of this whole review process.
Q Did CalAmp rely on those opinions provided by counsel?
A Yes, we did rely on them.
Q Did CalAmp rely on the searching that you did to, I think you called it, see the lay of the land?
A Yes. CalAmp did rely on that as well.
Q Let's shift our focus over back to the LMU devices. Does the LMU-3000 -- let me back up. You mentioned earlier you had done some testing and hooked an LMU up to the device and seen signals or letters, I believe you said, on a display?
A Yes.
Q Can you remind me which LMU device that was you had hooked up?
A I had both done, but one done after the other.
Q And when you say both is that the LMU-3000 and the LMU-3030?
A That's correct.
Q Do you have personal knowledge of what's inside the box on an LMU?
A Yes.
Q What's within that black housing?

A I am familiar with the components inside an LMU, yes.
Q Does an LMU-3000 have a transmitter?
A It does. It has a cellular module, so it both transmits and receives.
Q And it has a receiver?
A Yes, as I just said.
Q And I believe you testified before that you couldn't cause the LMU-3000 to unlock doors; is that correct?
A That's correct.
Q Is that true about the LMU-3030 as well?
A That's correct.
Q And the LMU-3000 can read data from the vehicle data bus?
A It can read data, can query data.
Q If it does query data, does it send that data somewhere once it receives it?
A It queries the data. It stores it. And then, depending on how the device has been programmed or if there's a remote request, it may send certain pieces of data.
Q Does that depend on how it's been programmed?
A That's correct. It's not sending everything that's collected.
Q Can you remotely send a query to an LMU-3000 and

have it immediately pull data off the vehicle data bus?
A No. It's been architected so that the OBD layer runs as its own process, and the old traditional LMU runs as its own process. So if there's a remote request for data that's related to the vehicle bus, what we're doing is the OBD layer's just running and it's feeding the database internally, and then the LMU will look in that database for the data that it's interested in. It won't cause a specific query of the bus to occur due to the remote request.
Q So if I remotely send a query to the LMU, is that received in the LMU layer portion of the LMU-3000?
A That's correct. That's the portion that's directly connected to the cellular transceiver.
Q And that query's not passed over to the OBD layer, then?
A No, it's not.
Q Do you know if the LMU or 3030 include a GPS unit?
A They definitely do.
Q Both of them?
A Both of them.
Q And what is that GPS unit for at a high level? What does it do?
A Well, we use it to get location information and speed information, and it basically reads the signals

coming from a constellation of satellites called the Global Positioning System that the U.S. military put up originally for military applications. Now it's been open to a lot of consumer applications.

Q And do you have a knowledge of how the GPS unit provides speed information?

A I probably want to simplify it a little bit, but it basically looks at what we call doppler shifts and some filtering beyond that. So a doppler shift is kind of like when there's a car coming at you at high speed and you listen to the sound as it comes to you and passes you, you have to kind of [makes sound].

So kind of like the sound seems to be changing, not just in volume, but the sound itself is changing. That's kind of an audible example of a doppler shift. And so, the GPS receiver is performing that type of electrical analysis, if you will, based on the satellite that it's getting data from.

Q Are you familiar with some of the functions that are provided on the LMU-3000 and LMU-3030?

A I am.

Q Are you familiar with a function called debounce?

A I am familiar with that, yes.

Q And can you briefly explain what debounce means?

A So debounce, what I like to also call hysteresis, is

basically a way of making multiple measurements so that you have high confidence that what you're seeing is a real event.

So maybe as an example, if we have a customer that operates a fleet of plumbing vans and they don't want the plumbing vans to drive over a certain speed, let's say 70 miles an hour, they'll set that speed, but they may say, well, but we understand that the driver might have to floor it for a few seconds to get around an accident or avoid some other problem, right, so they give him a little bit of wiggle room. That's kind of that debounce, right? You give them a second or two beyond that speed threshold to see if it really was a true speeding event, what you intended.

Q In connection with the debounce feature, can the speed be obtained from the vehicle bus?

A Not in conjunction with our -- with the debounce feature that we provide for customers. Our de bounce feature relies solely on GPS-acquired speed values.

Q Are you fami-- and is that true in both the LMU-3000 and the LMU-3030?

A It's true on both products.

Q And that would apply to the VPOD and VPOD2 as well if they were connected to a different LMU, as you mentioned earlier?

A Yes. Yes. I mean, they could -- the VPODs could provide bus speed, but the LMUs speed threshold debounce function would only use GPS-provided speed values.

Q Are you familiar with a function that CalAmp provides called speed above threshold?

A I am.

Q And can you briefly explain what that feature is?

A So that feature will look at GPS speed values. And if they exceed whatever the value is that's defined, depending on if there's additional debouncing or not, it can send a message saying the speed threshold has been violated.

Q And for that feature, where does it obtain the speed value?

A It comes from our GPS module.

Q And can it work with the vehicle bus speed data?

A We haven't allowed it to.

Q Is there a reason why you haven't allowed it to?

A Couple reasons. One is our customers, they've been using GPS speed and, you know, GPS speed is pretty consistent on its own. When we think about speedometers in a car, that's something we have no control over, right. On any given car, for example, as the tires wear down, the value on the speedometer's going to change. It will end up being more accurate.

Or if someone changes the wheel and tire sizes, unless it recalibrates the speedometer, it's going to be probably pretty far off. So, you know, GPS speed is reliable. It's high tech. It's consistent. And so, we have our customers use that. And, you know, they've been -- that's what they use.

Q You testified earlier that you had personally taken part in some discussions with Omega regarding their vehicle data bus patent portfolio; is that correct?

A That's correct.

Q And I believe you mentioned there may have been licenses offered?

A Yes. There have been licenses offered.

Q And was that a license to the entire vehicle data bus portfolio?

A At least at some point there was a license to the data bus portfolio.

Q And would that license have allowed CalAmp to add in features like unlocking doors?

MR. GILCHRIST: Object to the form.

THE COURT: What's the objection?

MR. GILCHRIST: The objection is calling for a legal conclusion, a legal analysis of the patent. It's also going into Rule 408 issues.

THE COURT: All right. Thank you.

That's sustained.
BY MR. KAUTH:
Q Did you have an understanding regarding performing functions like unlocking doors, setting alarms, or remotely starting a vehicle if those would be features that CalAmp could include on a licensed product?
MR. GILCHRIST: Same objection.
THE COURT: Bear with me one second.
(Pause in proceedings.)
Sustained.
BY MR. KAUTH:
Q In your previous discussions with Omega, were you ever offered -- was CalAmp ever offered a license for less than all of the vehicle data bus patents?
A Yes.
Q And do you recall what that license offered?
A Well, that -- so there's two groupings. One is when the licenses are just around GPS tracking, not including the data bus. And there's also licenses tied to features where we're not controlling things on the vehicle, like the door locks or the starter. So that would be the subset.
Q Do you recall ever referring to a license as a light license in your deposition?
A I do. That did come up in my deposition.

Q And do you recall what features that license was offering?
MR. GILCHRIST: Your Honor, once again I object.
THE COURT: Let's have a quick sidebar, gentlemen.
[Sidebar.]
THE COURT: Okay. Help me to understand how this is within the witness's lay witness testimony.
MR. KAUTH: He was the recipient of these license agreements. And what I'm trying to get to is there was a reduced feature set license that was offered. I know the dollar amount is going to be redacted out. It's the paragraph above that that I kind of need to get the description from. So I'm trying to get his recollection of first there was an offer -- and then if you only stick with the current feature set, we'll give you what's called a light license.
THE COURT: Does that go to the damages issue or --
MR. KAUTH: It goes to the damages and also the sort of we only license this $5.00 a unit for a full feature set and there was, in fact, a limited license set at a different dollar amount.
THE COURT: All right.

MR. KAUTH: We can't get to the dollar amount, but we can get to the limited feature set that was offered.
THE COURT: All right. What's your response?
MR. GILCHRIST: Well, I don't have a problem with him talking about a limited feature set. It's once he goes into explaining the patents and all that.
THE COURT: Right.
MR. GILCHRIST: But just to generally describe it, I'm fine.
THE COURT: It's the interpretation of the license that's outside the scope.
MR. GILCHRIST: Correct, yes, sir.
THE COURT: And his -- it's the lay witness opinions that he has indicated that he has no --
MR. KAUTH: I'd like to tell him not to, but--
THE COURT: Lead him through that a little bit. I think it's going to be easier, wouldn't you agree?
MR. GILCHRIST: Yes, sir.
THE COURT: Rather than leave it open-ended.
MR. KAUTH: All right.
[End sidebar.]
THE COURT: Please continue.
BY MR. KAUTH:

Q Without getting into specifics about the patents or which data bus patents were covered, the light license you referred to, what features would it allow CalAmp to put on its device?
A It would allow us to supposedly read data from the vehicle bus, but not allow us to control the door locks or the ignition or any other controllable devices, things on the vehicle.
Q We've talked a lot this morning about the searching you did. You told me CalAmp relied on that, relied on outside counsel. Is there anything else that CalAmp relied on in determining to move forward with the LMU-3000 and 3030 products?
A Do you mean from a legal review perspective, an IP perspective?
Q If you have an example from an IP perspective.
A I don't recall that there's anything else we necessarily relied on off-hand from a legal perspective. I mean, there's the whole whether or not, you know, the market wants the product type of review that goes on before we choose to launch a product. We're very market driven, if you will. It's not a build it and they will come type of mentality at CalAmp.
Q We talked briefly about the light license, and I believe you said you received a draft license that

included those terms; is that correct?
A I received a draft that -- so the light license initially was offered verbally, and later I received a draft that had slightly different numbers in it.
Q Did the receipt of the light license lead to any more searching by you, a phase four of your project, if you will?
A Yes. I think it may tie back more into phase three and four, for my purposes. But, yes, we did searches along the lines of reading data and things around, you know, connecting scan tools to wireless devices. I think we expanded beyond controlling things on the vehicle as a primary focus.
MR. KAUTH: I have nothing further, Your Honor.
THE COURT: All right. Thank you very much. Cross examination when you're ready.

CROSS EXAMINATION

BY MR. GILCHRIST:
Q Mr. Chen, are you an owner of CalAmp?
A Am I an owner of CalAmp? CalAmp is a publicly-traded company, and I do have some shares that I have purchased.
Q So that's a yes?
A If that's your definition of owner, yes.

Q And those customers you just mentioned, they're the ones that came to you and said, we want these features?
A We have customers that are always giving us feedback on features they would like in products, yes.
Q As a result of the customers coming to you and saying, we could really use these features, that's how you got started in the LMU-3000 and the VPOD, correct?
A Yeah. That drove our interest and forced us to -- or drove us into doing the investigation that later led to the product development.
Q And the GTE crystal that you're growing has nothing to do with anything we've got here today, correct?
A Indirectly. I mean, advanced technology, in terms of how to grow crystals that helps us make smaller, lower power, lower cost devices but, I mean, it's -- it wasn't for vehicle bus connectivity.
Q You don't provide the controllers for your LMU, do you?
A I'm sorry. We don't provide the controllers?
Q You don't make them, right?
A We don't manufacture the controller itself. We integrate it into our device.
Q These are microchips that are available on the market, right?
A That's correct.

Q And the LMU-3000 and 3030, that's intended to be used in a car?
A Primarily cars that have OBD-II connectors on them.
Q It's not intended to be used in the witness stand of a federal jury court case?
A No, it's not.
Q Same with the VPOD?
A Same with the VPOD.
Q Now, do you recall meeting Mr. Flick at the SEMA show in 2009?
A No. I've never been at a SEMA show. I think that's pretty clear from my deposition and the e-mails related to my deposition.
Q Well, you met Mr. Flick at a show, correct?
A That is correct.
Q Okay. And you told him he hadn't invented anything, right?
A I didn't say that.
Q Did you say that generally to Mr. Flick?
A I said that we had significant prior art to his, you know, to his patents.
Q And did you explain to him about your background?
A Did I explain to him about my background? I don't remember it coming up.
Q Were you the one who made the decision for the LMUs

to hit the market?
A I'm sorry. To hit the market?
Q Yes, sir.
A I was involved in the decision for them to hit the market, but it's not just my decision.
Q Well, as part of your process that you went through, do they look to you to give them the a-okay that these LMUs and VPODs could hit the market?
A From an IP review they relied on, in part, my review and, in part, the opinion of counsel.
Q And when your customers came forward and said we really want these features, how long did it take CalAmp to develop these features and have a sellable LMU-3000 unit?
A So, customers had been asked --
Q No, sir. Just how long?
A Well, I don't -- I'm not sure it's that easy just to say how long, because we investigated -- we had customers asking for it. We didn't choose to move into development at that time. We waited, interest built, and we engaged with B&B on their sale, and then we went into a review of the IP 'cause we were, you know, very interested at that point. So from the time of signing with B&B to launching a product, it was less than a year.

Q Are you sure it wasn't a year and a half?
A It could have been a year and a half, a year, year and a half.
Q How much did you pay B&B?
A We paid B&B I think on the order of $25,000 for non-recurring engineering.
Q And then $7.00 a unit thereafter?
A $7.17 a unit thereafter, including the Bosch CAN bus license pass through.
Q And B&B had no patents, right?
A I don't recall them having patents.
Q And then you moved into the VPOD, correct?
A That's correct.
Q And that took about eight months to develop, right?
A I don't quite recall.
Q That was with Innova?
A No. VPOD, without a number at the end is based on the B&B technology.
Q I'm sorry. It was the 3030 that's used Innova to prepare --
A We did use Innova technology, that's correct.
Q And that took about eight months, correct?
A Sounds about right.
Q Okay. And how much did you pay royalty to Innova?
A We paid royalty to Innova -- the initial deal called

for $1.50 per unit.
Q And how much on top of that, sir?
A The initial NRE for the domestic product, I thought that was in the 75k range.
Q But then there was ongoing obligations?
A There was ongoing support, yes.
Q Obligations?
A Annual support.
Q You had to pay them more and more money, right?
A We did.
Q And then eventually the only way to get out of paying them more and more money was to buy them out, right?
A Yes. We chose to negotiate a buyout with them 'cause we wanted more control of the technology.
Q And how much was that?
A The buyout was around $1.5 million.
Q And Innova didn't have any patents, did it?
A Not that I know of.
Q And when you were discussing your seeking advice with counsel, that's the counsel we have here, right?
A It's the same firm, but the counsel I was working with on the opinions was David Bailey.
Q And that's with Mr. Kauth's firm?
A That's correct, as I just said.

Q And the written opinion that you referenced was obtained after this lawsuit was filed, right?
A That's correct.
Q So your lawyers were simply telling you what their defenses were in this lawsuit, right?
A No. They've been giving us opinions since 2010 on this. There was no lawsuit on a vehicle bus back then.
Q Do you recall when this lawsuit was?
A Sometime in 2013. Am I right?
Q You don't recall?
A I believe it was filed in 2013.
Q Not that important to you or you just don't recall?
A When it was filed is not super important to me at this point. We're here today.
Q And the first lawsuit you described to the jury, the one that was dismissed without prejudice --
A Correct, those were my words.
Q Okay. That -- and then you mentioned that there were different patents involved, right?
A That's correct.
Q Because that one didn't involve the LMU-3000 or 3030, did it?
A It did not.
Q Because they weren't even out yet?
A That's correct.

Q So it wouldn't be surprising that there were different patents involved in this lawsuit, would it?
A It's a different subject area.
Q And then you provided this jury with some information about what you understand the LMU units to do. Do you know Mr. Hergesheimer?
A I do know Mr. Hergesheimer.
Q He's an engineer with your firm?
A That is correct.
Q And he's a good one, right?
A Yeah, he's a good engineer.
Q And so, if he testified in front of this jury, the jury should believe what he had to say about the LMUs, correct?
A As long as it's put in the proper context, yes.
Q And do you know Mr. Eisenberg?
A Eisenberg?
Q Eisberg?
A Eisberg?
Q Do you have another engineer?
A We have lots of engineers, sir.
Q The one that wrote the programs?
A We have several engineers that write programs.
Q Let me -- I'll check with my colleague to make sure I got the spelling or pronunciation right.

A Okay, thank you.
(Brief pause in proceedings.)
Q His name is Mr. Eiberger.
A Eiberger. I know who Mr. Eiberger is.
Q You didn't understand that a moment ago?
A No. I didn't get from Eisberg to Eiberger, I'm sorry.
Q Mr. Eiberger a programmer?
A He's an engineer.
Q Okay. And he's a good one?
A Should be. I actually don't -- I don't work nearly as closely with him.
Q Is he the one who does all the script programs?
A He is in the application engineering side, so he and other application engineers do the majority of the scripting, yes.
Q So if he told the jury about what the scripting does with respect to the speed, they should rely more upon him than you, correct?
A Yes.
Q You don't care much for Mr. Flick, do you?
A Do I care for Mr. Flick? I don't know Mr. Flick that well. I've met him on two occasions.
Q You called him a troll?
A I didn't call him a troll. I was asked if I thought

he fit the profile of a troll in my deposition, if I remember correctly.
Q So you called him a troll?
MR. KAUTH: Objection. Argumentative.
THE COURT: Overruled.
A I said that what Mr. Flick's company did is what patent trolls do.
BY MR. GILCHRIST:
Q And you don't care for that, right?
A I don't care for that? I don't like it.
MR. GILCHRIST: That's all I have, Your Honor.
THE COURT: Thank you very much.
Any redirect?
REDIRECT EXAMINATION
BY MR. KAUTH:
Q Mr. Chen, you were asked about the written opinions that were provided by counsel?
A Yes.
Q And I believe you said those were provided -- can you refresh my memory? When were those provided?
A Check the date. They were brought out in late June of 2014.
Q And were each of those opinions confirming a prior opinion that had been provided orally?
A Yes, they were.

MR. KAUTH: Nothing further, Your Honor.
THE COURT: Thank you.
Thank you, sir. You may step down.
THE WITNESS: Thank you.
THE COURT: All right.
Your next witness when you're ready.
MR. KAUTH: CalAmp calls David Bailey.
DEPUTY CLERK: Please step over to the witness box and remain standing. Please raise your right hand. Do you solemnly swear, under penalty of perjury, to tell the truth, the whole truth, and nothing but the truth, so help you God?
THE WITNESS: I do.
DEPUTY CLERK: Please take a seat.
THE WITNESS: Thank you.
DEPUTY CLERK: Please state your name for the record, spelling your last name.
THE WITNESS: My name is David James Bailey, and that's spelled B-a-i-l-e-y.
DEPUTY CLERK: Thank you.
THE COURT: All right, thank you.
You may proceed.
/////
/////
/////

DAVID BAILEY, ESQ., DEFENDANT'S WITNESS, SWORN
DIRECT EXAMINATION
BY MR. KAUTH:
Q Good afternoon, Mr. Bailey.
A Good afternoon, Joel.
Q Can you tell us where you're currently employed?
A I am currently the managing partner of KPPB, LLP.
Q And what is KPPB, LLP?
A It's an intellectual property boutique law firm. We really specialize in the representation of leading-edge technology companies, very innovative companies, and leading research universities on the west coast of America. We represent Caltech, the jet propulsion laboratory in Stanford.
Q And in addition to being a lawyer, do you have a technical background?
A Yes, I do. I have a technical degree in computer engineering. And I have -- you know, prior to becoming an attorney, I did research in the field of automatic speech recognition. You know, people are probably familiar with Siri, but please don't blame me for that.
Q Is CalAmp Corp. one of your clients?
A Yes, it is.
Q And in connection with this lawsuit, were you asked to provide opinions relating to the four patents involved

in this lawsuit?
A Yes, I was.
Q And did you provide those opinions?
A Yes, I did.
Q Did you provide them orally or in writing?
A We initially provided them orally. To step back, CalAmp had an interest in expanding its product line. It has a very large range of vehicle tracking devices known as LMUs. And there was some interest in expanding the product range to include OBD-II connectivity. So instead of being able to just track the vehicle and monitor driver behavior and do different things with the GPS receivers and the accelerometers, there was some interest in just hooking up to the vehicle data bus and being able to read some additional data.

And so, as part of that process, CalAmp had approached me with the assistance of Gallin Chen. We reviewed literally hundreds of patents. We were trying to understand what the risks would be associated with taking the product line in this new direction, something that CalAmp had traditionally not offered its customers. And as part of that process we did review many of the -- many patents that were assigned to Omega and -- I apologize. I wasn't expecting to be here today talking about this, so my recollection is a little hazy.

But I believe in 2010, we looked at three of the patents that were in suit.

I know the information's in my opinion exactly when that was, so I could certainly take a look at those and tell you, but that was the '876, '885 and '727 patents. And I believe at that time -- I'm not even sure the '278 patent had issued at that point, but certainly we weren't aware of it until much later, I think.

You know, we would kind of engage in this process with Omega where they would send us patents and we would look at them and, you know, essentially point out to them, you know, we clearly kind of infringe these or provide them with copies of the SAE standards and make inquiries about how the patents could possibly be valid, and then they would send us another set of patents to review. And then, I think at some point in 2013, if I recall correctly, that might have been when they sent us the '278 patent, and we took a look at that one obviously as part of our due diligence process at that time.
Q So the first three patents you mentioned, the '876, the '885, and the '727, did you provide an oral opinion regarding those patents to CalAmp?
A Yes. I don't recall the exact date. I remember it was in 2010. And it was before they had actually

started selling a product, they wanted an opinion from me as part of their due diligence in terms of where they can invest in the research and development before proceeding with expanding their product line.

And then, you know, you obviously have to stay current with what your client is doing. So throughout the process of them, you know, developing the LMU-3000, I would be in contact with Gallen confirming, you know, what design decisions were being made and were those design decisions in accordance with the assumptions that we had originally made when we were analyzing those patents in that earlier time frame.

And then right before they launched the product we, again, sat down and revisited the issues. And, you know, keep in mind that this is not just Omega. There's a large number of companies that claim to have intellectual property related to the vehicle data bus.

You know, I think -- you know, Bosch is an example of one of those companies that CalAmp actually takes a license to their intellectual property. And so, you know, we did our analysis and we reaffirmed the opinions at that time, and then CalAmp proceeded with launching the LMU-3000 product.
Q Could you reach over to that stack and take Defendant's 71, please. And do you recognize that

document?
A Do you mind if I just take a few minutes to review it?
(Pause in proceedings.)
Okay. Yes, this contains my analysis.
(Pause in proceedings.)
Yes. I do you recognize this document. It appears to be a copy of the opinion letter that I provided CalAmp, but it doesn't appear to have the exhibits that were attached to the opinion letter.
Q And to which patent does that opinion letter pertain?
A This letter documents my -- the opinion that I previously rendered with respect to non-infringement by the LMU-3000 and later the LMU-3030 products with respect to the '876 patent.
Q And did you provide that opinion to CalAmp?
A Yes, I did.
Q Could you turn to Exhibit 73, please.
A All right. Where would you like me to put this?
Q You can set it back on that stand anywhere.
A Okay.
Q And do you recognize that document?
A If you will just bear with me, I'll --
(Pause in proceedings.)

Yes, I do you recognize this document. This document is a letter that documents the previously rendered opinions that I provided CalAmp that express the opinion that the '885 patent is invalid in view of the combination of a patent to Spaur that I refer to as the Cellport patent and --

MR. GILCHRIST: Your Honor, if we're going to get into the explanation, this is far beyond --

THE COURT: Yes, sustained.

Please limit your answer to the fact that you gave an opinion --

THE WITNESS: Sure.

THE COURT: -- and the date of the opinion would be fine as well.

THE WITNESS: Sir, I didn't hear the last part of the instruction, sorry.

THE COURT: Your testimony should be limited -- you may not have been here during this conversation, but your testimony should be limited to the fact that you gave the opinion to your client, but not the substance of your opinion.

THE WITNESS: Okay. I'm sorry. I apologize, Your Honor. I didn't appreciate that.

THE COURT: That's fine.

A Certainly, this is an opinion that I gave to my

client regarding the '885 patent.

BY MR. KAUTH:

Q And did you actually send that opinion to the client?

A Yes, I did. And I reviewed it in person with Mr. Chen.

Q Could you turn to Exhibit 74, please. And do you recognize that document?

A If you will just bear with me, I'll just review to confirm.

(Pause in proceedings.)

Yes, I do recognize it.

Q What is that document?

A This is a letter expressing an opinion of invalidity with respect to the '727 patent that I provided to CalAmp and reviewed in person with Mr. Chen.

Q And what's the date of that letter?

A The date of the letter is June 27th, 2014.

Q And that was confirming a prior oral opinion, correct?

A Yes, it was.

Q Could you please turn to Exhibit 75. Do you recognize that document?

A Yes, please, just give me a moment to confirm.

(Pause in proceedings.)

Yes. I do you recognize this document.

Q What is that document?

A This document is the -- a letter documenting an opinion of the invalidity with respect to the '278 patent that I provided to CalAmp and reviewed in person with Gallin Chen.

Q Thank you.

MR. KAUTH: Your Honor, I have no further questions.

THE COURT: Thank you. Any cross examination?

CROSS EXAMINATION

BY MR. GILCHRIST:

Q Your law firm is what?

A KPPB, LLP.

Q Is this the K of KPPB?

A That is correct.

Q And as the managing partner, you're responsible for the finances of the firm?

A That is one of my responsibilities.

Q How much do you charge per hour?

A That's a -- could you be more specific? We have various discounted billing rates.

Q Okay. How much do you charge per hour for CalAmp?

A I believe I charge CalAmp $375 an hour.

Q And out of the four lawyers we've got sitting here,

how many are yours?

A With the exception of Carrie Ann Wozniak, Charles Halloran, Eugene Chong and Joel Kauth are my colleagues.

Q What's the total amount of billing per hour that you are charging CalAmp for this trial?

MR. KAUTH: Objection. Outside the scope of direct.

THE COURT: Overruled.

A To be perfectly honest, Mr. Kauth is responsible for that, so I have no idea.

BY MR. GILCHRIST:

Q You don't know his hourly rate?

A Actually, I do not know his hourly rate on this matter.

Q And you've been here all week?

A Yes, I have.

Q As well as all three of your lawyers?

A Yes. Yes.

Q That's quite a billing opportunity for you, wouldn't you say?

A We do what's necessary to represent our clients.

Q And your client asked you to provide an opinion that would clear them in the event of a lawsuit, right?

A No.

Q And that's what you did with these opinions, right?

A I prepared opinions documenting my analysis that we conducted in doing a risk assessment for launching a new product.
Q And they're just your opinions, right?
A Yes, that is correct.
MR. GILCHRIST: That's all I have, Your Honor.
THE COURT: All right, thank you.
Any redirect?
MR. KAUTH: We'd move the admission of Exhibit 73, 74, 75, and 71.
THE COURT: Any objection?
MR. GILCHRIST: Same objection, Your Honor.
THE COURT: Sustained. Anything else?
MR. KAUTH: Nothing further, Your Honor.
THE COURT: All right, thank you.
Sir, you may step down. Thank you very much.
THE WITNESS: Thank you very much.
THE COURT: Your next witness.
MR. KAUTH: CalAmp calls Eric Andrews to the stand.
DEPUTY CLERK: Please stand by the black chair, sir, and remain standing. Please raise your right hand. Do you solemnly swear, under penalty of perjury, to tell the truth, the whole truth, and nothing but the truth, so help you God?

THE WITNESS: I do.
DEPUTY CLERK: Please take a seat.
THE COURT: All right. Mr. Andrews, once you get comfortable, she'll have you give your name at some point. Just make sure that microphone stays fairly close to you.
THE WITNESS: Okay. Thank you.
DEPUTY CLERK: For the record, sir, please state your name, spelling your last name.
THE WITNESS: Eric Andrews, A-n-d-r-e-w-s.
THE COURT: You may proceed.

ERIC ANDREWS, DEFENDANT'S WITNESS, SWORN

DIRECT EXAMINATION

BY MR. KAUTH:
Q Mr. Andrews, have you been retained as an expert in this litigation?
A Yes, I have.
Q And by whom have you been retained?
A By KPPB.
Q And on whose behalf are you testifying?
A Myself.
Q And are you being compensated for your testimony?
A Yes, I am.
Q And is that compensation on an hourly basis?
A Yes, it is.

Q And does your compensation vary based on the opinion you reach?
A No, it doesn't.
Q Have you ever been an expert witness before?
A No. This is my first time.
Q Prior to this lawsuit, have you ever had your deposition taken before?
A No, I haven't.
Q So, let's go back. What's your background that qualifies you as an expert witness?
A All right. Starting from the beginning, I graduated from the University of California, Santa Barbara 1983 in electrical and computer engineering, focused in controls.
Q And what does "focused in controls" mean?
A Really focused in the control theory using control and feedback to control different things.
Q All right. After you graduated, where was your first job?
A First job was with Hughes Aircraft working on ground radar systems.
Q Did that include any control systems?
A Indirectly, yes. I was responsible for developing software for our radar signal processor which takes the RF data, digitizes it, processes it, and then it is used

to display different information from the radar.
Q How long did you work with Hughes?
A About four years.
Q And where did you go next?
A I went to McDonnell Douglas aircraft.
Q What kind of work did you do at McDonnell Douglas?
A It was on the Apache helicopter. I was responsible for the electronic system, avionics, black boxes, responsible for turret control for the gun on the front.
Q What was your title while you were there?
A I was a systems engineer.
Q And you mentioned you were responsible for the turret. What type of work, more specifically, were you doing there?
A This was around controlling the gun system based on information from the site. I don't know if you've seen some of the Army commercials where he's got the sight. And based upon the information in his sight, the gun will follow as well, so I was responsible for getting that type of data. It was at that point on a data bus called the standard 1553, which is the highest speed link that's used in many military aircraft to communicate information between various black boxes.
Q So the control system you worked on was connected to a data bus?

A Yes, it was.
Q Did you work on any other projects while you were there?
A Just accuracy improvements using the various sensors that we had to improve the gun system.
Q Where did you go?
A I went to Sikorsky Aircraft in Connecticut.
Q What was your position at Sikorsky?
A That was more of a systems role. This was looking at the development of the next generation attack helicopter called a Comanche, so I was responsible for the gun system portion of the proposal. So that work was really doing a lot more analysis to understand the different requirements that the Army was giving us and what requirements were necessary and some of the different components of the system.
Q Did the Sikorsky helicopter you were working on include that same low spec data bus that you mentioned in the previous helicopter?
A Yes, it did. We did some analysis to understand how often we would have to get updated information from the various black boxes to still meet our accuracy requirements.
Q Where did you go after Sikorsky?
A I then went to Cummins Engine Company in Indiana.

Q And does Cummins make engines or more than engines? What do they make?
A Cummins is the world's largest manufacturer of engines, diesel engines, from anywhere to small homemade emergency power type generators all the way up to large locomotives, diesel locomotive trannies.
Q At Cummins, what was your title when you started there?
A Electrical engineer. Well, systems engineer, excuse me.
Q And what type of things did you work on as a systems engineer at Cummins?
A Originally it started -- Cummins had just released their first electronics product, so this was 1990. EPA was very interested in extending on-board diagnostics into heavier-duty engines, you know, from large pickup trucks all the way to the big-rig type vehicles. So my role was to work with both the EPA and CARB, the Air Resources Board in California, to help them with the equivalent requirements in diesel that were already available in the gasoline program.
Q I think you said CARB is the California Air Resources Board; is that correct?
A Correct.
Q As part of working with them did you have to become

familiar with any standards?
A Quite a few standards, all of the OBD requirements, as well as some of the data link standards that were used in the light duty projects, as well as vehicles, as well.
Q Is OBD-II a standard that was proposed by CARB?
A Yes, it is.
Q And did you work on that?
A Quite a bit. Worked in negotiating some of the rules for heavy duty trucks and pickups.
Q So after you were a systems engineer at Cummins, did you progress to any other positions?
A I then moved over to the team leadership developing electronics for engine programs. And this type of role started out as a four liter engine, so in that role we're working with customers closely. Some of our better customers, they would give us vehicles, we would put our engines in and be responsible for testing the system that, you know, are all the different systems that are on the bus working properly -- can we communicate, can we use our service tool with our engine, can we use our service tool with our truck, do a lot of testing, put a lot of miles and collected a lot of data on it and then had it back to the customer, essentially signing off that, hey, it meets the

standards, you know, you can certify it and sell it.
Q During your time at Cumains, were you a member of the Society of Automotive Engineers?
A Yes, I was the entire time.
Q And how long were you there?
A Twenty-two years.
Q What was your title right before you retired from Cummins?
A Chief engineer.
Q And what does a chief engineer do?
A My role there was -- actually, I like to talk a little bit about prior to being a chief engineer.
Q Sure.
A I was director of advanced engineering controls. So that was looking at products ten years in the future to understand what technologies would be available, you know, where is the EPA going with emissions, that type of stuff.
Q Were those projects related to vehicle data buss?
A Yes. In fact, we did a white paper on the future of data links. You know, what's the future in terms of do we need more speed, do we need more sensors on the bus, you know, where are our customers going, that type stuff.
Q You mentioned data links in your answer.

A I'm sorry?
Q What's a data link?
A Data link is a term we use. It's synonymous with data bus, vehicle data bus, that type stuff.
Q So that's an industry term?
A Yes, it is. I'll try to use bus, sorry.
Q Counting your time at Cummins and the helicopter companies where you worked on the bus, how many years experience do you have with data buses?
A Almost 30.
MR. KAUTH: Your Honor, we'd tender Mr. Andrews as an expert in vehicle data bus technology as applied to infringement and invalidity in this case.
THE COURT: Any objection?
MR. GILCHRIST: No, Your Honor.
THE COURT: He'll be so qualified.
BY MR. KAUTH:
Q When you were at Cummins, did you ever work with the SAE? You mentioned working with CARB, but how about the SAE?
A Yes, we did.
Q And is that --
A Yes, I did. Excuse me.
Q And what was the role there?
A There were several roles. One was I was on a

subcommittee for using a new exhaust after-treatment technology not really related to data buses. But also within our group we were responsible with -- as part of OBD to get the heavy-duty data links standard, which is SAE 1939 incorporated into the J1978 spec, which is a communications protocol used as part of OBD.
Q Prior to that time was J1978 just for smaller vehicles?
A Yes, it was.
Q And was J1939 later adopted as a part of J1978?
A Yes, it was.
Q I want to dig a little more into what type of projects you had at Cummins working on the vehicle data bus. You mentioned earlier you had a -- I believe your degree had a major or an emphasis in control systems. At Cummins did you ever work on control systems on the data bus?
A Yes, we did. As part of engine development, we'd often have to update our controls to go with an engine. And one method of doing this was in the vehicle to use a separate controller to talk to our old engine controller. So what we'd do is we'd stick new algorithms -- and I'll use cruise control as an example on this one. Put the new cruise control algorithm in the new controller and then talk to the old controller.

So an example would be the new controller would query the old engine controller for things like, hey, are you in cruise control? How fast are you going? You know, how fast is the set speed of your cruise control? And how much fuel are you currently using?
Q And would the data bus provide responses back or --
A Yes. Response to that query would be that information that you requested from the old controller into the new controller.
Q Was that directed to a particular module on the data bus?
A Particular -- it was back to our new controller that was on the data bus.
Q And the new controller on the data bus, once it got back, and I think speed was one of the things you mentioned --
A Right.
Q -- what would it do with that information?
A Based on that data, it would go through the new algorithm to come up with new fueling for the engine. And then what we would do is we would command that information back to the old engine controller and that engine controller would then fuel accordingly based on what the new one asked for.
Q Would it be fair to say that it would check the

speed and if it was going slow it would increase the fuel and --
A Correct.
Q -- if it was going too fast it would reduce the fuel?
A Exactly.
Q Are you aware of the four patents that are part of this lawsuit?
A Yes, I am.
Q And have you reviewed those patents?
A Yes, I have.
Q Did you prepare reports in this case?
A Yes, I did.
Q And what did those reports cover at a high level?
A I was looking -- there were two reports. The first one I did was on invalidity. And it was looking at existing art, prior art at the time, and comparing the patents in question versus art that was in the field at the time.
Q As part of preparing those reports, did you do any investigation on your own?
A Yes, I did.
Q And what did that entail?
A I was looking at -- on the website, uspto.org, doing some searches on similar key words.

Q Did you -- as part of preparing your two reports in this case, did you read the file histories of the four patents in suit?
A Yes, I did.
Q Did you read any material about the CalAmp products involved in this case?
A Yes, I have.
Q And you said you did some searching. Tell me a little bit more what you were searching for.
A I was looking for key words that were in the patents in question, you know, bus, wireless, vehicle, that type of stuff, combinations of those terms.
Q Were you also provided patents and publications that others had found?
A Yes, I was.
Q Did you review those as well?
A Yes, I did.
Q So in your process, it sounds like you reviewed the patents in suit, you've reviewed some other patents and publications. With respect to your report on non-infringement, what was your next step?
A Based on what I found in the patents that were given to me, to do analysis to look at the Flick patents, look at the patents that I had, could I see similarities, you know, were they being covered in the

previous patents to make my assessment.
Q And were you provided any information about the meaning of terms in the Omega patents?
A Yes, I was.
Q And what was that?
A It was the Court's claim construction of various terms.
Q Do you have a copy of your opinion up there?
A I hope so.
Q I will bring one.
MR. KAUTH: May I approach the witness, Your Honor?
THE COURT: Yes, you may.
THE WITNESS: I didn't mean to kill so many trees.
(Pause in proceedings.)
BY MR. KAUTH:
Q I'm going to hand you what's been marked Exhibit number 38. Would you take a look at that, please?
A Yep.
Q Do you recognize that document?
A Yes, I do.
Q And what is that document?
A This is a document I created for -- regarding invalidity.

Q And in that document, if you could -- let me back up a little bit. You mentioned you had done some searching for patents. You were provided some patents and other publications?
A Yes.
Q At some point, did you determine which prior art references you wanted to use in your opinion?
A Yes, I did.
Q And how did you make that determination?
A I was going through in detail in reading the patents, comparing against what was in the Flick patents to better understand was everything being taught in one of the patents from the prior art.
Q Okay. I'd like you to turn in your opinion to the Braitberg '479 patent, which is Exhibit number 10. So let me give you a simpler way to do it.
MR. KAUTH: May I approach, Your Honor?
THE COURT: Yes, you may.
BY MR. KAUTH:
Q I will hand you just that exhibit.
A Okay.
Q Do you recognize what Exhibit 10 is?
A Yes, I do.
Q And what is Exhibit 10?
A It's the Braitberg '479 patent.

Q Is that a patent you considered in your opinion?
A Yes.
Q I think I cut you off before. I wanted to jump into the process of how did you arrive at the reference that you used in your opinion. How many patents do you think you read before you narrowed it down to the ones you used in your opinion?
A Just related to this case or as part of my experience at Cummins?
Q Let's start with just related to this case.
A Okay, sorry. Oh, gosh, 30 or so.
Q And it sounds like your time at Cummins, was it part of your duty to review patents?
A Yes. As director of engineering controls we're looking at products ten years out in the future. We really needed to understand what IP is already out there in place, and is there room to develop products without any infringement or freedom to operate in that area.
Q Do you have any training in reviewing patents?
A Yes, we did. As within -- as part of the job, we had training from Cummins' internal counsel on how to review patents. I was also a committee member on the Cummins invention review board for several years reviewing different inventions that would come through