

UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE
THE PATENT TRIAL AND APPEAL BOARD

APPLIED CONCEPTS, INC.,) Case No.
Petitioner,) IPR 2024-00884
vs) U.S. Patent No.
KUSTOM SIGNALS, INC.,) 11,703,602
Patent Owner.)
_____)

ZOOM DEPOSITION OF
BRIAN W. ANTHONY, PH.D.

January 24, 2025
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Taken at:
Cambridge, Massachusetts

Kathy R. Bonfiglio, CSR-KS, CSR-MO, RPR

Page 2 1 APPEARANCES: 2 On behalf of the Petitioner: 3 Mr. Wasif Qureshi 4 Mr. Christopher Rourk 5 Jackson Walker, LLP 6 1401 McKinney Street, Suite 1900 7 Houston, Texas 77010 8 (713)752-4521 9 wqureshi@jw.com 10 crouark@jw.com 11 12 On behalf of the Patent Owner: 13 Mr. Scott R. Brown 14 Mr. Matthew B. Walters 15 Hovey Williams, LLP 16 10801 Mastin Boulevard, Suite 1000 17 84 Corporate Woods 18 Overland Park, Kansas 66210 19 (913)647-9050 20 Fax: (913)647-9057 21 sbrown@hoveywilliams.com 22 mwalters@hoveywilliams.com 23 24 25	Page 4 1 INDEX OF EXHIBITS 2 NUMBER DESCRIPTION MARKED 3 Exhibit 1 Provisional patent application 54 4 5 EXHIBITS REFERENCED 6 Exhibit 1002 - (Withdrawn) 42 7 Exhibit 1003 - Declaration of Brian Anthony 20 8 Exhibit 1004 - Aker Patent Application..... 65 9 Exhibit 1005 - Thomas reference..... 74 10 Exhibit 1006 - Carmichael reference..... 100 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
Page 3 1 TRANSCRIPT INDEX 2 APPEARANCES..... 2 3 INDEX OF EXHIBITS..... 4 4 5 EXAMINATION OF BRIAN W. ANTHONY, PH.D.: 6 BY MR. BROWN..... 5 7 BY MR. QURESHI..... 129 8 9 10 11 12 13 14 15 16 17 18 19 REPORTER'S CERTIFICATE..... 131 20 21 EXHIBIT CUSTODY 22 EXHIBITS RETAINED BY COURT REPORTER 23 24 25	Page 5 1 BRIAN W. ANTHONY, PH.D., 2 having been sworn on his oath to testify the truth, 3 the whole truth, and nothing but the truth, 4 testifies: 5 DIRECT EXAMINATION 6 BY MR. BROWN: 7 Q. Good morning, Dr. Anthony. 8 A. Good morning. 9 Q. Maybe before we start I'll just state 10 for the record my name is Scott Brown. I'm 11 appearing here on behalf of the patent owner. With 12 me today in the room is my partner, Matt Walters. 13 Wasif, maybe you just want to make an introduction. 14 MR. QURESHI: For petitioner, Applied 15 Concepts, I'm Wasif Qureshi from the law firm of 16 Jackson Walker. I'm sitting in Houston, Texas and 17 just for the record, Mr. Anthony, you are in 18 Boston? 19 A. Cambridge, Massachusetts. 20 MR. QURESHI: Cambridge, Massachusetts. 21 Thank you. And Scott, I'm not sure, is this 22 deposition being recorded by video? 23 MR. BROWN: No, I don't believe so. 24 MR. QURESHI: Fair enough. 25 Q. (By Mr. Brown) Okay. Let's get started

2 (Pages 2 - 5)

Page 6 1 then, Dr. Anthony. Have you ever been deposed 2 before? 3 A. Yes. 4 Q. I'll just briefly go through the ground 5 rules with you and then we'll get into the 6 substance. You understand that even though this 7 deposition is being taken by video and relatively 8 informal settings that you have sworn to tell the 9 truth as if you were sitting in a court of law? 10 A. Yes. 11 Q. Because this is a written record we 12 need to have spoken answers and so please answer 13 all questions verbally. A shake or nod of the head 14 won't make it onto the record. Is that acceptable? 15 A. Yes. 16 Q. I'm going to do my best to ask clear 17 questions of you. If you don't understand my 18 question, please ask me to clarify. If you answer 19 a question I'll assume you understood it. Is that 20 okay? 21 A. Yes. 22 Q. Are you aware of any reason why you 23 cannot provide truthful, complete answers to my 24 questions today? 25 A. No.	Page 8 1 access to things and so if you find that easier 2 then I recommend you do that. Do you have any of 3 your files with you? 4 A. No. 5 Q. So, for instance, do you have any paper 6 with you? 7 A. No. Will you be posting as well 8 digital copies of the documents as we go through 9 them? Sometimes it's more convenient for paper 10 access for me and sometimes it's easier for 11 digital. 12 Q. I can do that, yes. How many times 13 have you been deposed? 14 A. About probably nine, 10. 15 Q. What was the subject matter of those 16 depositions generally? 17 A. Largely sensors, electronics for 18 sensors, algorithms for signal processing. 19 Q. Did any of those matters relate to 20 patent cases? 21 A. Yes. 22 Q. How many? 23 A. I think except for one, all patent 24 cases. 25 Q. In those patent cases were they
Page 7 1 Q. Are you using any medication that might 2 impair your memory? 3 A. No. 4 Q. Is there anyone else in the room with 5 you? 6 A. No. 7 Q. The computer that you are using, do you 8 have access to your files on that computer? 9 A. I do access the internet on the 10 computer, yes. 11 Q. Are you accessing anything right now? 12 A. No. 13 Q. I would ask you to please tell me if 14 you start accessing something to answer a question 15 so we can understand what the basis of your answer 16 is. Is that fair? 17 A. Yes. 18 Q. We sent you a box of materials. Did 19 you receive it? 20 A. I did, yes. 21 Q. Do you have it handy? 22 A. The box is right here. 23 Q. It's just the things that have been 24 filed so far. I thought it might be easier to have 25 paper versions for you to use, it might be quicker	Page 9 1 proceedings in court or were they proceedings 2 before the Patent Office? 3 A. Very similar to like this on both 4 sides. 5 Q. How many times have you been involved 6 with a proceeding before the Patent Office? 7 A. Just to clarify, this proceeding is 8 before the Patent Office? 9 Q. Yes. 10 A. So about ten times. 11 Q. In those ten times that you have been 12 involved in the past, have you ever been working on 13 behalf of the patent owner? 14 A. Yes. 15 Q. On how many occasions were you working 16 for the patent owner? 17 A. Probably about three or four. 18 Q. And the remaining times you were 19 working for the petitioner? 20 A. Correct. 21 Q. When was the last time that you gave a 22 deposition? 23 A. I think it was October, November of 24 last year. 25 Q. Who were the parties involved in that?

3 (Pages 6 - 9)

Page 10 1 A. I believe that one would have been 2 Apple and Masimo. 3 Q. Have you ever been retained by the 4 Jackson Walker firm before this action? 5 A. I do not believe so, no. 6 Q. Do you understand that there are two 7 separate proceedings before the Patent Office 8 involved in your testimony today? 9 A. Yes. 10 Q. One of them relates to U.S. Patent 11 11,194,039; is that correct? 12 A. The 039 I have memorized. I don't 13 remember the other numbers but that sounds right. 14 Q. And then the other one relates to 15 11,703,602; is that correct? 16 A. I believe so. The 602 I have in my 17 mind but I don't remember the other digits. 18 Q. Understood. So if I refer to them as 19 the 039 and 602 patents you will know what I'm 20 talking about? 21 A. Yes. 22 Q. Would you agree with me the claims are 23 very similar between the 039 and 602 patents? 24 MR. QURESHI: Objection; form. 25 A. Is it okay if I open up the boxes and	Page 12 1 the 039, Claim 1, I'm looking on the paper you 2 sent. Looking on screen, on the 062 or 602 -- 3 Q. Actually to clarify, Dr. Anthony, I 4 believe that the 039 patent is the one that's 5 displayed on the screen right now. Let me scroll 6 up. 7 A. Yes. 039. So, for example, in Claim 1 8 of the 039 there are -- under Claim 1 there's the 9 two parts. There was a first radar transceiver and 10 then a second radar transceiver and in 602, in 11 comparison, there's a radar transceiver configured 12 to transmit and receive radar beams in a front zone 13 to an area in front of a patrol vehicle or in a 14 rear zone. So in the 039 it lists a first radar 15 configured for the front and a second radar for the 16 rear and then in the 602 there's the single retile 17 under Claim 1. 18 Q. Is it accurate to say that you have 19 asserted grounds of invalidity numbered 1A, 1B, 2A 20 and 2B in both of the proceedings? 21 A. I'm going to act as my declarations for 22 both. 23 Q. Okay. 24 A. So for the 039 there's a Ground 1A, 25 Ground 1B, Ground 2A and Ground 2B and for the 602,
Page 11 1 pull out -- 2 Q. (By Mr. Brown) Absolutely. 3 MR. QURESHI: Court reporter, were you 4 able to hear my objection? I just want to make 5 sure I'm audible enough. 6 THE REPORTER: Yes, sir. 7 A. This might be more convenient if you 8 want to post the two patents, 039 and 602. Is 9 there a digital link for the postings? Is that in 10 the e-mail? 11 Q. (By Mr. Brown) I'm going to screen 12 share with you. 13 A. Okay. 14 Q. I'm screen sharing now. Can you see 15 that? 16 A. Yes. I see the 039. 17 Q. I'll scroll to the end of it. You just 18 tell me what you want to look at. 19 A. Well, repeat your question, please. 20 Q. The question was, would you agree with 21 me that the claims between the 039 and 602 patents 22 are very similar to each other? 23 MR. QURESHI: Objection; form. 24 A. Well, that's the 602. Bring up the 039 25 from what you sent me here. So, for example, in	Page 13 1 the Ground 1A, 1B, 2A, 2B and a Ground 3. 2 Q. For the numbered grounds in those two 3 petitions or actions that are common; 1A, 1B, 2A 4 and 2B, is it accurate to say that your analysis 5 asserting invalidity under those enumerated grounds 6 is the same for both patents? 7 MR. QURESHI: Objection; form. 8 A. Reviewing the Table of Contents on both 9 the Table of Contents are very similar. I can't 10 promise you that they are identical in the details 11 throughout but structurally very similar. 12 Q. (By Mr. Brown) Fair to say you are 13 familiar with the grounds in each of these 14 petitions that you have asserted; correct? 15 A. Yes. 16 Q. The analysis that you engaged in 17 asserting those grounds was the same between those 18 two petitions, wasn't it? 19 MR. QURESHI: Form objection. 20 A. Again, they are structurally very 21 similar. I can't promise you that there weren't 22 edits and changes between the two but they are 23 structurally very similar. 24 Q. (By Mr. Brown) As we go through today 25 and the various arguments, if you become aware of a

Page 14 1 difference between the analysis what you said for 2 the 039 patent and what you said for the 602, would 3 you point that out to me? 4 MR. QURESHI: Form objection. 5 A. I'll do so as possible. 6 Q. (By Mr. Brown) Did you personally do 7 all the work that led to your opinions that are 8 reflected in your declarations? 9 A. The declarations are my opinions. I 10 didn't type every word but they were written in 11 collaboration with counsel but these are certainly 12 my opinions and I attest to them. 13 Q. Did anyone else other than counsel work 14 with you on preparing those opinions? 15 A. No. 16 Q. How many hours would you say you have 17 spent on preparing the declaration for the 039 18 patent? 19 A. I'm sorry, preparing the declaration? 20 Q. Yes. 21 A. The declaration, I would estimate it 22 was on the order of 20 to 40 hours. 23 Q. Same question for the 602 declaration. 24 How many hours did you spend preparing that 25 declaration?	Page 16 1 with respect to the 039 declaration, was that the 2 same -- did you spend the same 20 to 40 hours on 3 the 602 declaration? 4 MR. QURESHI: Objection; form. 5 A. Yeah. I do not remember the exact 6 break out in hours but I would estimate an 7 additional ten hours or so between the two. 8 Q. (By Mr. Brown) In that last answer do 9 you mean that you spent 20 to 40 on one and then 10 just an additional ten to complete the second or 11 another 20 to 40 plus ten to complete the second? 12 MR. QURESHI: Form objection. 13 A. I do not remember the exact breakdown 14 on hours. I'm trying to recall something that was 15 now just been as much as a year ago but ballpark, 16 20 to 40 on the first one and on the order of 10 to 17 20 hours additional on the next one, 602. 18 Q. (By Mr. Brown) How many hours in total 19 did you spend in arriving at your opinions in this 20 case? 21 A. Extensive time reading all of the 22 relevant literature in addition to writing so 23 actually I don't remember how many hours I spent 24 reading. 25 Q. In the collaboration with counsel did
Page 15 1 A. Fewer in addition but additional hours. 2 Q. Which did you work on first? 3 A. You will note on the signature page, 4 page 80 of the 039 that was dated 4-19-24; the 5 signature page of the 602, page 96 is dated 4-30-24 6 so that would be the order, 039 first. 7 Q. Did you block and copy large sections 8 from the 039 declaration for use in the 602 9 declaration? 10 MR. QURESHI: Objection; form. 11 A. I'm sorry, can you repeat the question, 12 please? 13 Q. (By Mr. Brown) Yes. Did you block and 14 copy from the 039 declaration to help yourself 15 prepare the 602 declaration? 16 MR. QURESHI: Same objection. 17 A. I don't understand what you mean by 18 block and copy. 19 Q. (By Mr. Brown) Okay. Let me drop the 20 word block. Did you copy portions of the 039 21 declaration to the 602 declaration? 22 A. As we established, many of the 23 arguments are similar so certainly there is going 24 to be some copying and editing potentially as well. 25 Q. The 20 to 40 hours that you mentioned	Page 17 1 you draft the declaration in its first iteration? 2 MR. QURESHI: Objection; form and Dr. 3 Anthony, before you answer that question I just 4 want to caution you not to reveal the substance of 5 any communications you had with counsel during your 6 work in this case. 7 A. Again, my declarations are my opinion. 8 They were written collaboratively. I did not type 9 every word but these are my opinions and I attest 10 to them. 11 Q. (By Mr. Brown) My question was whether 12 you were the one who prepared the first draft or 13 let me just pose that question if that wasn't the 14 question. Are you the one who prepared the first 15 draft of the declaration for the 039 patent? 16 MR. QURESHI: Objection; form. 17 A. Again, these are my opinions written 18 collaboratively capturing my opinions. I'm not 19 sure if you want to classify outlines versus 20 document draft as the first but these are certainly 21 my opinions. 22 Q. (By Mr. Brown) Are there any portions 23 of the 039 declaration that were written solely by 24 you? 25 MR. QURESHI: Form.

Page 18 1 A. Again, the writing of the document was 2 collaborative capturing my opinions during 3 conversations, putting my words down, but when I 4 didn't actually type the individual words, which I 5 did, some of which were captured my words and 6 counsel typed them but these are my opinions. 7 Q. (By Mr. Brown) Were there any portions 8 of the 039 declaration that were written solely by 9 you? 10 A. Yes, throughout but can I point to 11 exactly which words, no, but they are all my 12 opinions. 13 Q. Are there any portions of the 039 14 declaration that were written solely by counsel? 15 MR. QURESHI: Form objection. 16 A. Again, all the words here are my 17 opinions captured in either my writing or in 18 conversation with counsel and these are my 19 declarations. 20 Q. (By Mr. Brown) Did you write the 21 portions of the declaration that discuss the law? 22 A. I'm going to my declaration, the 039. 23 So, for example, on page 75 of the 039 declaration, 24 describe here how I had been informed by counsel 25 what anticipation means under the law and it's my	Page 20 1 Q. How many times did you meet with 2 counsel over the last couple of weeks to prepare 3 for the deposition? 4 A. Either two or three times. 5 Q. Were those all conducted remotely? 6 A. Yes. 7 Q. Did you see anything in your 8 declaration that you considered to be an error that 9 you need to correct? 10 A. No. 11 Q. Do you have your declaration for the 12 039 patent handy? It's Exhibit 1003. 13 A. Yes. 14 Q. If you go to the end or page 81 of 104 15 in that document, you will see the page numbering 16 that was applied to the exhibit in the bottom right 17 corners. 18 A. Yes. Can you pull up on screen as 19 well? 20 MR. QURESHI: Scott, can you post the 21 link in the chat window so I can access the 22 document, too, without having to find documents on 23 my directory as we go? 24 Q. (By Mr. Brown) I'm not sure I can. 25 I'll pull it up for you, though. Then you will
Page 19 1 understanding as well in subsequent paragraphs and 2 obviousness, so this is my understanding as 3 discussed with counsel. 4 Q. What did you do to prepare for today's 5 deposition? 6 MR. QURESHI: Dr. Anthony, you can 7 answer that but in your answer I just want to make 8 sure you don't reveal discussions you had with 9 counsel or Applied Concepts in preparation for 10 today's deposition. 11 A. I reviewed my declarations and the 12 references that I cite in my declarations and had 13 conversations with counsel. 14 Q. (By Mr. Brown) How long did you spend 15 reviewing your declarations? 16 A. I would say on the order of eight 17 hours. 18 Q. That eight hours, would that include 19 reading documents cited by your declaration? 20 A. You had asked on the declaration so 21 additional hours reviewing the documents cited. 22 Q. Did you have any meetings with counsel? 23 A. Yes. 24 Q. When did you meet with counsel? 25 A. Over the last couple of weeks.	Page 21 1 have to give me a minute while I pop up documents 2 as you refer to them. 3 MR. QURESHI: Go ahead as far as opening 4 the declaration. 5 Q. (By Mr. Brown) Dr. Anthony, I put page 6 81 of 104 from your declaration. What is this that 7 we're looking at on this page? 8 A. That's the start of my academia, if you 9 will. 10 Q. The CV seems to have a date up in the 11 left corner of March 12, 2021. Do you see that? 12 A. I do, yes. 13 Q. Is this CV accurate as of the time of 14 the filing of this declaration? 15 A. Yes. I mean, I suspect there are 16 additional things that would have occurred between 17 '21 and '24 but it is accurate. 18 Q. I'm going to scroll down to the next 19 page which has an entry 9. It's a consulting 20 record. Do you see that? 21 A. Yes. 22 Q. What qualified amongst your work to be 23 listed under consulting record; what status? Did 24 something have to happen to make it part of this 25 record?

Page 22 1 MR. QURESHI: Objection; form. 2 A. Things that I read that I had done when 3 I created this document. 4 Q. (By Mr. Brown) Are there others that 5 wouldn't be listed here? 6 A. Not that I intentionally left off. 7 Q. Did any of the consulting work that's 8 listed under entry 9 on your academic CV relate to 9 incorporating GNSS systems into a product? 10 MR. QURESHI: Objection; form. 11 A. I'm sorry, I think as I described in 12 paragraph 4, just pointing to my work as the CTO of 13 the company that I started, at Xcitex where we 14 involved optical acoustic systems along with GPS 15 systems. 16 Q. (By Mr. Brown) What is Xcitex? 17 A. Xcitex, as I described on page 1, 18 paragraph 4, in '97 I co-founded Xcitex Company 19 that specialized in video-acquisition, advanced 20 instrumentation, and target tracking and video 21 analysis and signal processing software. I served 22 as CTO, directed and managed product development 23 until 2006. Our products included systems which 24 combined video acquisition along with optical, 25 acoustic, RF signals, acquisition and analysis and	Page 24 1 signal processing system that would allow people to 2 collect data of many sorts and we provided both 3 electronics and software to temporally synchronize 4 multiple sensor types in order to ascertain systems 5 and manufacturing in things that go fast and boom 6 and military applications, manufacturing 7 applications, robotics applications, vehicle 8 applications and the sort. 9 Q. Was the Midas product used for the 10 military? 11 A. Some of our customers indeed were 12 military, yes. 13 Q. When was the Midas product developed? 14 A. That would have been '98, '99. 15 Q. As CTO what was your role in the 16 development of the Midas product? 17 A. As I describe here, I served as the CTO 18 and directed and managed product development in all 19 these areas and I did the development, I directed 20 people that did development and was also involved 21 in customer training and everything that a startup 22 company entails. 23 Q. Did you do any direct design work with 24 respect to integration with GPS systems in the 25 Midas product?
Page 23 1 further integration with GPS systems. 2 Q. So I think in the answer you're 3 referring to the further integration with GPS 4 systems? 5 A. Yes. 6 MR. QURESHI: Objection; form. 7 Q. (By Mr. Brown) What products are you 8 referring to in that sentence, in paragraph 4 of 9 your declaration? 10 A. What products that my company produced? 11 Q. Well, yes. The sentence refers to "our 12 products included," and then at the end it says, 13 "and further integration with GPS systems." So 14 what products included further integration with GPS 15 systems? 16 A. We had one of our flagship products 17 called Midas that had both video-plus data 18 acquisition, video-plus GPS integration or range 19 and battlefield and that sort of stemmed as well 20 from my work at Los Alamos where I worked on radar 21 navigation things or other types of things that go 22 fast and boom. 23 Q. What did the Midas product do? What was 24 its application? 25 A. Midas was used for a versatile data and	Page 25 1 A. Yes. 2 Q. What was your role in that regard? 3 A. I designed the electronic interfaces, 4 the software interfaces to synchronize GPS with 5 other data acquisition systems including optical 6 radar and video. 7 Q. When you say synchronize GPS systems, 8 what do you mean? 9 A. Get them all working together. 10 Q. How did the Midas product use the GPS 11 systems? 12 A. It would use it for location; it would 13 use it for ranging; it would use it for -- it was a 14 versatile sort of -- all the things that you use 15 GPS, so position, velocity, localization on the 16 field, in hospitals or sorry, in manufacturing 17 settings and in military settings and other 18 settings; sports. 19 Q. You said location, ranging and velocity 20 of what? 21 A. Wherever the sensors were attached to 22 or where the devices were attached to. 23 Q. How did the Midas system synchronize 24 all that data; for what purpose? 25 MR. QURESHI: Objection; form.

Page 26 1 A. For the purpose of making sense of the 2 multi mobile data sweep. If you don't have things 3 synchronized you don't know time and so it's 4 important to have everything synchronized to be 5 able to jointly analyze. So you need to 6 synchronize in the acquisition in order to have 7 maximum value in the acquisition or in the 8 extraction of information from that synchronized 9 multi mobile data. 10 Q. (By Mr. Brown) Were there any other 11 products at Xcitex that included GPS systems or 12 integration with GPS systems? 13 A. Well, Midas was the platform that we 14 used for a lot of our acquisition and our other 15 platform was on the somatization platform was 16 pervasive in the many things that we did. 17 Q. Other than the Midas platform did you 18 work with any product that integrated with GPS 19 systems? 20 A. As a graduate student I worked with JPL 21 on robotic systems, earth borne called the 22 subsurface Explorer and the idea for that was to 23 self-propel itself into the ground using a 24 combination of and to do navigation both with 25 acoustic signals and radar signals and sort of the	Page 28 1 A. It's not a product. That was sort of 2 research, internal research to develop systems for 3 in the home monitoring. When I left Los Alamos I 4 did a lot of -- after graduate school I decided to 5 switch a little bit more to humans so in 6 researching the human use of all of the various 7 sensors, including radar and acoustics and optimal 8 techniques, and so a lot of work that we've done 9 has been developing new ways to apply these 10 principles so I've learned that throughout my 11 career. 12 Q. When was the research done that you 13 just referenced that was using analogs for GPS for 14 internal sites but not GPS satellites? 15 A. That would have been started -- but not 16 GPS satellites. As I highlight in paragraph 6 of 17 the 039, in 2011 that's when we started the Medical 18 Electronics Devices Realization Center and that was 19 focused on using, bringing together the semi 20 conductor technology, the medical community and 21 signal, both ambient sensors and wearable sensors. 22 So under that time may have been 2013, 2012 when we 23 would have had projects that would be combined with 24 both wearable and internal navigation systems for 25 monitoring of people in health care environments.
Page 27 1 delivery deployment mechanism was GPS. With Los 2 Alamos, I don't know if the stuff I did with radar 3 at that point was including the GPS or not but 4 certainly with the subsurface Explorer it was. 5 Q. When were you working on the subsurface 6 Explorer? 7 A. That would have been -- let's see. 8 Working backwards. So Los Alamos, that would have 9 been '92 -- it would have been '92, '93. That was 10 the radar processing and EE11 is the group and then 11 subsurface Explorer work, that would have been '95, 12 '96, in that range. 13 Q. Any other product or project you worked 14 on that included integration with GPS systems? 15 A. Analogs to GPS as well. Worked on 16 internal navigation systems that don't necessarily 17 use GPS satellites but use very similar GPS signals 18 for indoor mobilization for both home monitoring, 19 manufacturing monitoring, not using the GPS signal 20 but the principles with internal inside building 21 satellite like transponders instead of the GPS 22 signal. 23 Q. What was the name of the product that 24 you just mentioned that was used as an analog for 25 GPS but doesn't use --	Page 29 1 Q. Any other research or projects you have 2 worked on that involved integration with GPS 3 systems other than what you have already referred 4 to? 5 A. Well, many systems we use the output of 6 GPS signals or of GPS receivers to gain that 7 situational awareness of location and for tracking 8 of people and tracking of vehicles. I do a lot of 9 robotics, sort of a lot of autonomous systems. 10 Those types, it's a common thing to integrate. I 11 teach -- the classes that I teach, I've taught the 12 principles and the use of GPS through -- I've 13 taught introduction to electrical engineering, 14 computer science through the lens of communication; 15 medical devices, navigation systems and so in those 16 classes I've taught the principles of radar, of 17 Doppler processing in multiple GPS localization. I 18 teach an IOT class that integrates positioning 19 systems from the GPS in many domains; agriculture 20 and manufacturing. It's a rich area that comes up 21 in many of the things that I do. 22 Q. When have you taught those courses? 23 A. Oh, let's see. So I have been teaching 24 those courses in those various -- in sequential 25 iterations so probably about since 2009, 2010 maybe

Page 30 1 and then since -- even yesterday I was teaching a 2 class, an on-line professional class in industrial 3 and other things where one of the discussion topics 4 was radar processing, ultrasound processing, and 5 GPS but the start date would have been around -- I 6 think those courses would have been 2008, '9. 7 Q. You have a section in your CV Awards 8 Received, No. 11. Do you see that? 9 A. I do. 10 Q. Did any of the work that resulted in 11 these awards involve integrating GPS systems into a 12 product or process? 13 A. In the swing vision that data was 14 available but they did not use it for what they 15 actually ended up conveying on television. That 16 was a repurposing and refactoring of Midas, Midas 17 running two high -- Midas was the backbone piece of 18 acquisition hardware to synchronize the capture of 19 multiple cameras and optical radar systems and the 20 GPS data was in there. It was never broadcast for 21 television. Like I don't see that we used to 22 calculate the launch angle and the back still of 23 the golf ball to another automatically. It was 24 there; it just didn't make it to broadcast, 25 unfortunately.	Page 32 1 signal per se but sort of internal, sort of room 2 beacons to do the similar localization. But most 3 of these are not directed at GPS satellites. 4 Q. You said most of these. Are any of 5 them directed to GPS satellites? 6 A. It does not appear so, no. 7 Q. Are any of the patent locations that 8 you have listed here directed at GPS satellites? 9 A. No, but as I described, PROSITA, which 10 I certainly am, does not issue a patent to be an 11 expert in the PROSITA in the area but these are not 12 patents that I pursued under GPS. 13 Q. On page 89 of your declaration in your 14 CV you list a book. Does that book relate to the 15 use of GPS systems? 16 A. No, it does not. 17 Q. Do any of the papers listed under 18 Section 2 in your CV relate to the use of GPS 19 systems? 20 A. No, they do not but as I point out, 21 like the highlight in paragraph 16 of my 22 declaration, PROSITA, it would have been a person 23 with a working knowledge of Doppler radar systems, 24 a Bachelor of Science degree in an academic 25 discipline emphasizing electrical, mechanical,
Page 31 1 Q. Have you ever received any awards for 2 work with GPS systems? 3 A. Not that explicitly listed GPS, no. 4 Q. No. 13 in your CV is a list of patents 5 and applications. Do you see that? 6 A. Yes. 7 Q. In this list there are numbered U.S. 8 patents and then there's also references to the MIT 9 case; for instance, entry 10. Do you see that? 10 A. Yes. 11 Q. If it's an MIT case does that mean it's 12 applied for patent but hasn't been issued? 13 A. Correct. 14 Q. All of your patents or applications are 15 listed in this section? 16 A. Barring things that weren't on the list 17 but it looks correct. 18 Q. Did any of the patents relate to 19 technology that utilizes GPS systems? 20 A. Well, a lot of the work that I decided 21 to do when coming back to the academia was using 22 both sort of the principles of radar and 23 localization that I had developed prior to. Some 24 of the internal, which the six degrees of tracking, 25 those using internal tracking systems, not the GPS	Page 33 1 related to signal processing or measurement 2 science, in combination with specific training or 3 at least one to two years of related work 4 experience with Doppler radar systems. 5 Alternatively, a person with a Master of Science 6 degree in electrical engineering with less than a 7 year of related experience in the same discipline. 8 I do not opine that a PROSITA in this field needs 9 to have published extensively as I have worked 10 extensively and applied those systems. I have 11 chosen to public in different areas but I can 12 certainly as a PROSITA and actually more than a 13 PROSITA in that I teach and educate in those 14 domains. I choose to publish in different areas. 15 Q. Did any of the referenced conferences 16 under Section 3 relate to the use of GPS systems? 17 A. I do not believe they will because as I 18 said, both under my conference proceedings and 19 journal publications, I choose to publish in the 20 areas where I'm doing the most in depth research 21 but I certainly use my principles and the use of 22 GPS and radar and ultrasound and optics in much of 23 my work. 24 Q. Are any of the articles in preparation 25 related to the use of GPS systems?

Page 34 1 A. Well, certainly the in-home monitoring 2 is using GPS but not signals from GPS satellites. 3 Q. Was the subject matter of any of the 4 invited lectures related to the integration of GPS 5 systems? 6 A. No, they were not, but as I've 7 described I certainly use GPS systems and applied 8 GPS systems in my work. I choose to publish in 9 different areas so I'm certainly a PROSITA and much 10 more than a PROSITA in these areas. 11 Q. Go to paragraph 13 of your declaration. 12 A. The O39 declaration? 13 Q. Yes, of the 039 declaration. 14 Q. You say, "In writing this Declaration, 15 I have considered the following" and then you give 16 a description. Do you see that? 17 A. Yes. 18 MR. QURESHI: What paragraph, Scott? 19 MR. BROWN: Paragraph 13. 20 MR. QURESHI: Got it. Sorry. 21 Q. (By Mr. Brown) Have you listed anywhere 22 in your declaration what materials you considered 23 in arriving at your opinions? 24 A. So in paragraph 10 I highlight the 25 references and materials and the other materials I	Page 36 1 Q. (By Mr. Brown) Are there other 2 materials? 3 A. I don't think I reference any other 4 documents in my declaration other than the 5 documents that are listed in paragraph 10. 6 Q. Okay. But apart from what you have 7 listed in your declaration, did you review or 8 consider additional documents that did not make the 9 list that are in paragraph 10? 10 A. Did I read other papers and am I 11 familiar with other literature, yes, but in writing 12 my opinion here, the documents that I cite and form 13 my opinions to establish the backbone of the 14 formation of my opinions are those listed in 15 paragraph 10. 16 Q. Fair to say then that everything that 17 you are relying on to formulate your opinion is 18 listed in paragraph 10? 19 A. Well, as I say in paragraph 13, "In 20 writing this Declaration I have considered the 21 following: My own knowledge and experience, 22 including my work experience in the fields of 23 mechanical engineering, computer science, 24 biomedical engineering, and electrical engineering; 25 my experience in teaching those subjects; and my
Page 35 1 cite in my declaration. That's including ACI-1001 2 up through ACI-1010. 3 Q. So at the bottom of page 5, in 4 paragraph 13 you say, "In addition, I have analyzed 5 various publications and materials in addition to 6 other materials I cite in my declaration." Do you 7 see that? 8 A. Yes. 9 Q. Is that referring to materials other 10 than the ones that are listed in paragraph 10? 11 A. The articles or the items that I list 12 in paragraph 10 are sufficient to give the 13 background for my establishing the backbone of my 14 opinions. Are there other documents that could be, 15 other pieces of literature in the world that could 16 be relevant, yes, but it's not necessary to list 17 the infinite spectrum of all relevant literature. 18 The documents that I cite in paragraph 10 are 19 sufficient to establish the background in forming 20 my opinions. 21 Q. My question wasn't what was sufficient 22 but what are in fact the materials that you did 23 reference in the process of developing your 24 opinions that are not listed in paragraph 10. 25 MR. QURESHI: Objection; form.	Page 37 1 experience in working with others involved in those 2 fields. In addition, I have analyzed various 3 publications and materials, in addition to other 4 materials I cite in my declaration." So on behalf 5 of doing my job of educating, of doing research, 6 I'm familiar with a lot of literature. The 7 documents that I cite in paragraph 10 are those 8 that I cite in the declaration. 9 Q. I understand you to say that you have 10 background information based on your long 11 experience, but my question is with respect to the 12 basis for your opinions of invalidity, are the 13 documents that you are relying on for that basis 14 all set forth in paragraph 10? 15 MR. QURESHI: Objection; form. 16 A. As I further explain, my opinions, as I 17 explained in paragraph 14, are based on my 18 education, my experience and expertise in these 19 fields related to the 039 patent. Unless otherwise 20 stated, my testimony below refers to the knowledge 21 of one of ordinary skill in the fields as of the 22 critical date or before. Any figures that appear 23 within the document have been prepared with 24 assistance of counsel and reflect my understanding 25 of the 039 patent and the prior are discussed

Page 38 1 below." So I'm giving my opinions based on a 2 PROSITA at the time and what a PROSITA at the time 3 and use the reference highlighted in paragraph 10. 4 Q. Are the only documents that you are 5 relying upon to form your opinions or the basis for 6 the opinions set forth in the 039 declaration 7 listed in paragraph 10? 8 MR. QURESHI: Objection; form. 9 A. I think I've answered the question. A 10 PROSITA is familiar with, and as I defined what a 11 PROSITA would have the knowledge of, would have 12 been familiar with not only the literature that I 13 cite but the field in these areas so it's not 14 necessary to list every single piece of literature 15 that a PROSITA would be familiar with. It's 16 sufficient in establishing my opinions for the 17 documents that I list here and as I describe what a 18 PROSITA in paragraph -- where did it go? In 19 paragraph 16, a PROSITA and what their knowledge 20 would be, which includes being familiar with 21 literature as am I. 22 Q. Fair to say that the only documents 23 that you refer to that you are relying on in the 24 declaration are set forth in paragraph 10? 25 MR. QURESHI: Objection; form.	Page 40 1 documents is a collaborative effort with counsel. 2 Q. So did counsel provide to you all of 3 the documents that are listed in paragraph 10? 4 A. I do not remember. 5 Q. Did you search for documents when you 6 first took on this assignment? 7 A. That is generally my practice, yes. 8 Q. As you sit here today you don't 9 remember if you found those documents or if they 10 were given to you? 11 A. Again, the opinions established in my 12 declaration are my opinions. There are these 13 references and certainly many others that would be 14 consistent in establishing and not disagreeing with 15 my opinion. Whether or not I found these or 16 counsel found these, I do not recall. 17 Q. When were you first retained? 18 A. At some point before the signature 19 date. I do not recall the exact date. 20 Q. Approximately how much time went 21 between when you were first retained and when you 22 completed your 039 declaration? 23 A. I do not recall. Several, multiple 24 months. 25 Q. So two months?
Page 39 1 A. I think I answered this, but the 2 documents that I cite are those listed in paragraph 3 10. There is knowledge in a PROSITA that is only 4 in the papers and literature that they would be as 5 a PROSITA familiar with but the documents that are 6 cited are in deed those listed in paragraph 10. 7 Q. (By Mr. Brown) What other documents are 8 you relying on to render your opinions other than 9 those listed in paragraph 10? 10 MR. QURESHI: Objection; form. 11 A. What I'm relying on is the knowledge of 12 a PROSITA as I describe on page 7 and paragraph 16. 13 I rely on the documents that I listed and certainly 14 a PROSITA, based on their expertise in the 15 disciplines; electrical, mechanical, 16 instrumentation, they have knowledge. That 17 knowledge has been written down in other documents. 18 I did not find it necessary to list those other 19 documents. I point to what a PROSITA's background 20 would be and I reference the documents listed in 21 paragraph 10. 22 Q. Did you find any of the references that 23 are listed in paragraph 10 yourself? 24 A. Again, my declaration here is my 25 opinion. The writing of it and the reviewing of	Page 41 1 A. I do not recall. I would have to go 2 back and look at e-mails and when I signed things 3 to get engaged. 4 Q. Three months? 5 A. I do not recall. On the order of I 6 think probably three, four, five months. 7 Q. Have you reviewed the provisional 8 patent applications that are incorporated by 9 reference into the 039 patent? 10 A. I'm sorry, could you repeat the 11 question? 12 Q. Have you reviewed the provisional 13 patent applications that were incorporated by 14 reference into the 039 patent? 15 A. I'm certain that I skimmed through 16 them, reviewed them at some point. As they are 17 described here in paragraph 10, I reviewed the 039 18 patent, relevant excerpts of the 039 prosecution 19 history, prior references and materials so likely 20 have reviewed the documents that were referenced in 21 the 039 at some point. 22 Q. The prosecution history of the 039 23 which you submitted as ACI-1002, I'll note I can't 24 find that it includes the provisional applications 25 in it. Was there any other part of the prosecution

Page 42 1 history of the 039 patent that you reviewed other 2 than what was submitted as Exhibit 1002, and you 3 have 1002 in your binder. Feel free to take a 4 moment to look through that. 5 MR. QURESHI: Objection; form. 6 MR. QURESHI: Scott, after his answer if 7 we could take a break. 8 A. So refamiliarize myself with 1002. 9 Mr. Brown, could you repeat your question, please? 10 (Whereupon the question, "The 11 prosecution history of the 039 which you submitted 12 as ACI-1002, I'll note I can't find that it 13 includes the provisional applications in it. Was 14 there any other part of the prosecution history of 15 the 039 patent that you reviewed other than what 16 was submitted as Exhibit 1002 and you have 1002 in 17 your binder. Feel free to take a moment to look 18 through that." 19 A. So as part of my practice I would 20 certainly have read through or skimmed through at 21 least the provisional applications during my review 22 of the 039. 23 Q. Okay. Let's take a break. 24 MR. QURESHI: Do you want to take ten 25 minutes?	Page 44 1 Q. Did you ask counsel to do the art work 2 and then approved it? 3 MR. QURESHI: I'm going to caution the 4 witness here when answering that not to disclose 5 what you discussed with counsel. 6 A. The figures are my opinions in my 7 declaration. 8 Q. (By Mr. Brown) Do you agree with me 9 that the field of the invention for both the 039 10 and 602 patents is the same? 11 MR. QURESHI: Objection; form. 12 A. From looking at both my declarations 13 where I summarize the background of both of them, 14 so as I described in paragraph 15 of my 039 15 declaration and in my 602 declaration, paragraphs 16 15 and 16, in the 039 first, the 039 patent 17 describes a traffic radar system, the first radar 18 transceiver, a second radar transceiver directed 19 towards the rear of the vehicle, a speed 20 determining element, processing element describes 21 digitizing radio signals from the radar 22 transceivers. The processing element describes the 23 FFT or fast to convert time to frequency with 24 frequency bins. And then similarly in the 602, 25 traffic radar system, first radar transceiver,
Page 43 1 MR. BROWN: That's good. Thank you. 2 (Whereupon a recess was taken from 3 10:15 a.m. to 10:25 a.m.) 4 Q. Dr. Anthony, were there any records you 5 wanted but were unable to get as part of your 6 analysis? 7 MR. QURESHI: Objection; form. 8 A. No. 9 Q. (By Mr. Brown) Was there any 10 information you wanted but could not get? 11 A. No. 12 Q. You say in paragraph 14 of your 13 declaration, "Any figures that appear within this 14 document have been prepared with the assistance of 15 counsel and reflect my understanding of the 602 16 patent and the prior art discussed below." Do you 17 recall that? 18 A. That is paragraph 14 of my 039 19 declaration. 20 Q. So what was your involvement in 21 preparing the figures that are reproduced in your 22 declaration? 23 A. I'm not an artist so again, as my 24 declaration is my opinion, all the words and all 25 the figures are based on my opinions.	Page 45 1 second radar transceiver, speed determining 2 elements, processing element, applying the fast 3 transform to convert time signals into frequency so 4 yes, as they are described they are similar areas 5 of relevance. 6 Q. Would it be fair to characterize the 7 general field of the invention, both the 039 and 8 602 patents as traffic radar systems for police 9 speed enforcement? 10 MR. QURESHI: Objection; form. 11 A. Well, the titles of the 039 and 602 is 12 Traffic Radar System with Patrol Vehicle Speed 13 Detection. 14 Q. (By Mr. Brown) So would you agree that 15 that title implies that the field of the invention 16 of traffic radar systems is for police speed 17 enforcement? 18 A. For patrol. 19 Q. And patrol is a reference to a police 20 car; right? 21 A. Well, as described in Column 1 of the 22 039, traffic radio and ranging radar systems that 23 are implemented in law enforcement patrol vehicles 24 typically include at least one radar transceiver. 25 It doesn't specifically say police but law

Page 46 1 enforcement. 2 Q. Do each of the 039 and 602 patents 3 disclose preferred radar systems that utilize front 4 and rear radar transceivers? 5 MR. QURESHI: Objection; form. 6 A. Well, in the 039 in Claim 1 there's a 7 traffic radar system comprising a first radar 8 transceiver configured to transmit and receive from 9 the front zone and then around line 44, a second 10 radar transceiver configured to transmit and 11 receive, so certainly there are two there answering 12 to that one and then in the 602 there's a radar 13 transceiver configured to transmit and receive 14 radar beams in a front zone corresponding to an 15 area in front of a patrol vehicle or in a rear zone 16 corresponding to an area behind the patrol vehicle 17 and generate electronic signal and as I do discuss 18 in the 602 declaration, I opine about two different 19 ways to interpret that you asked and so it's very 20 clear in the 039 and I highlight two different 21 situations in 602, different interpretations of 22 and/or. 23 Q. With respect to the 602 setting aside 24 the claim language issue that you just raised, is 25 it accurate to say that 602 discloses, for	Page 48 1 and again, as I highlight in my declaration on the 2 602 I think in what is claimed there are two 3 interpretations possible. 4 Q. Is it accurate to say that the traffic 5 radar systems disclosed in both the 039 and 602 6 patent can operate in a moving patrol vehicle? 7 MR. QURESHI: Objection; form. 8 A. As is described in Claim 1 of the 039, 9 line 64, a patrol vehicle speed window that 10 includes a range of frequency bins having the 11 frequent bin number of a converted patrol vehicle, 12 claiming use in a moving patrol vehicle. 13 Q. (By Mr. Brown) And likewise, 602 also 14 does that; right? 15 A. In Column 22 of the 602, convert the 16 relative speed of the target vehicle. So in line 17 10 of Column 22, for a patrol vehicle speed window 18 that includes the range of frequency, having 19 frequency bin of the converted patrol vehicle speed 20 as a center of the range. 21 Q. Would you agree with me that one of the 22 problems being addressed by the inventions of the 23 039 and 602 patents is to distinguish between radar 24 returns that are reflections from target vehicles 25 as opposed to ground returns that represent the
Page 47 1 instance, in Figures 3 and 4 a dedicated front 2 transceiver and a dedicated rear transceiver? 3 A. You said the 602 patent? 4 Q. Yes. 5 A. Figures 3 and 4? 6 MR. QURESHI: Objection; form to the 7 pending question. 8 A. Plus in the 602 patent as the Figure 3 9 is described, Figure 3 of the schematic block 10 diagram illustrating electronic components of the 11 front radar transceiver assembly and Figure 4 is a 12 schematic block diagram illustrating properties of 13 the rear radar transceiver assembly. 14 Q. (By Mr. Brown) In the figures and 15 written description of the 039 patent and the 602 16 patent, was there any difference in how the radar 17 transceivers were described? 18 A. Well, in the 602 or in the 039 and the 19 602, the way that in Column 3 of both, Figure 3 is 20 described as schematic block diagram illustrating 21 electronic components of the front radar 22 transceiver assembly. Figure 4 is described as 23 schematic block diagram illustrating electronic 24 components of the rear radar transceiver assembly 25 so in the 602 and 039 that's how they are described	Page 49 1 patrol vehicle? 2 MR. QURESHI: Objection; form. 3 A. Can you repeat the question, please? 4 Q. (By Mr. Brown) Kathy, could you read it 5 back, please. 6 (Whereupon the question, "Would you 7 agree with me that one of the problems being 8 addressed by the inventions of the 039 and 602 9 patents is to distinguish between radar returns 10 that are reflections from target vehicles as 11 opposed to ground returns that represent the patrol 12 vehicle?" 13 A. So, for example, as explained in Claim 14 1, Column 15, line 49, a speed determining element 15 configured to determine an output of speed of the 16 patrol vehicle and not receiver signals or data 17 from the patrol vehicle. 18 Q. I'm not sure I understood your answer. 19 In Claim 1 of the 039 patent attempting to solve 20 the problem of distinguishing between the target 21 vehicle reflection and reflections that represent 22 the patrol vehicle. 23 (Witness reviewing records) 24 Q. Dr. Anthony, are you able to answer 25 this basic question?

Page 50 1 A. You asked the question about the 039 so 2 I was refamiliarizing with the 039 before I 3 answered. 4 Q. You have been reading for ten minutes, 5 it seems to me. Did you read the 039 patent this 6 week? 7 A. Yes, I did. 8 Q. Without reviewing the entire patent you 9 can't tell me if one of the problems that the 10 invention of the 039 is addressing is to 11 distinguish between patrol vehicle returns and 12 target vehicle returns? 13 MR. QURESHI: Objection; form. 14 A. You asked a very specific question so I 15 was making sure that I gave you a specific answer. 16 A PROSITA understands that in this area that you 17 would get radar signals received from both the 18 signals from the vehicle itself, from stationary 19 objects and from moving objects, and I was just 20 making sure that I gave you a precise answer. 21 Q. (By Mr. Brown) One of the things that 22 the invention of the 039 patent is trying to 23 address is distinguishing between those two signals 24 from target vehicles versus representing a control 25 vehicle; right?	Page 52 1 have a certain accuracy; would you agree? 2 MR. QURESHI: Objection; form and 3 foundation. 4 A. Well, there's no -- in 039 there's no 5 listing of a particular accuracy in the claims but 6 as I describe as well, PROSITA would know how to 7 achieve an appropriate and similar level of 8 accuracy in the combinations that I proposed so 9 PROSITA would be able to achieve whatever 10 presumptive required accuracy in the combination of 11 accurate and tolerance, for example. 12 Q. Do you have any information on how 13 accurate the systems need to be to hold up in court 14 as evidence? 15 MR. QURESHI: Objection; form and 16 foundation and scope. 17 A. You point to the 039 somewhere there's 18 some required accuracy. 19 Q. (By Mr. Brown) My question was, were 20 you familiar with any information on how accurate 21 law enforcement traffic radar control systems need 22 to be to hold up in court as evidence? 23 MR. QURESHI: Same objections. 24 A. Again, in forming my opinions I explain 25 how the art would be able to achieve at least the
Page 51 1 MR. QURESHI: Form. 2 A. So as I described already, and I think 3 maybe I was misunderstanding your question, but as 4 highlighted in Claim No. 1 there, using a separate 5 speed determining element configured to determine 6 an output, a speed of the patrol vehicle and not 7 receive the signals or data from the patrol 8 vehicle, meaning the radar signals that correspond 9 to the patrol signal. 10 Q. (By Mr. Brown) You agree that in the 11 environment of law enforcement traffic radar 12 systems it's important that the reported target 13 vehicle speeds be accurate? 14 MR. QURESHI: Objection; form. 15 A. I don't see in the 039 in the claims at 16 least where there's any specification or listing of 17 accuracy. 18 Q. (By Mr. Brown) Do you understand that 19 law enforcement uses radar return, recorded radar 20 returns to prosecute speed violations? 21 MR. QURESHI: Form. 22 A. That is presumptively one of the uses, 23 yes. 24 Q. (By Mr. Brown) So for law enforcement 25 to use it and for it to hold up in court it has to	Page 53 1 level of accuracy that could potentially achieve 2 with what is claimed in the 039. There's no 3 accuracy that is specifically claimed in the 039 or 4 the 602. 5 Q. When you say that the prior art would 6 be able to achieve the same accuracy as that 7 disclosed in the 039, what level of accuracy are 8 you referring to? 9 A. Again, there's no accuracy claim listed 10 but the systems that I describe would be at least 11 as accurate as what is described in the 039 and the 12 prior art would achieve that same level of 13 accuracy. 14 Q. Both the 602 and 039 patents disclose 15 using a GPS receiver to help determine the speed of 16 the patrol vehicle; is that correct? 17 A. That is one of the options that it 18 considers. 19 Q. And because the patrol vehicle can be 20 moving, speed can change significantly even in one 21 second if it were accelerating or decelerating; 22 would you agree? 23 MR. QURESHI: Form. 24 A. If a vehicle is accelerating then 25 velocity is changing. That's just physics.

Page 54 1 Q. (By Mr. Brown) In the context of using 2 these types of traffic radar control systems you 3 would need to have a resolution of at least one 4 second to determine the speed of the patrol 5 vehicle. Would you agree with that? 6 MR. QURESHI: Form. 7 A. I don't believe there's any claim 8 relative to a one second in the 039 or the 602. 9 Q. (By Mr. Brown) I'm going to show you a 10 document on the screen and this, I'll scroll up to 11 the top. This is a provisional patent application. 12 The application number is 62,569,923, which is that 13 number shown in the upper left-hand corner. Do you 14 see that? 15 A. I do. 16 Q. And counsel, we will mark this as 17 Anthony Exhibit 1. 18 (Whereupon Deposition Exhibit No. 1 was 19 marked for purposes of identification.) 20 Q. I think what we'll do is after the 21 deposition I'll e-mail it to everybody so that the 22 court reporter can include it in the transcript. 23 MR. QURESHI: Is this in the document 24 that you sent to me? 25 MR. BROWN: It is not.	Page 56 1 the box you sent, Scott? 2 MR. BROWN: It is not. 3 A. Okay. 4 Q. (By Mr. Brown) The paragraph continues 5 down. 6 A. Okay. 7 Q. This paragraph is describing at least 8 in part -- 9 A. Meaning the entire paragraph? 10 Q. Yeah. It's describing in part the 11 messages that are sent between the GPS receiver and 12 the processor and I want to draw your attention 13 to -- there's a sentence that begins, "This greatly 14 shortens the amount of data coming from the GPS and 15 allows for more updates per second." Do you see 16 that? 17 A. I do. 18 Q. It continues, "Included in the RMC 19 message is the "Speed Over Ground" data. This data 20 is the speed the patrol vehicle is traveling and 21 will be used for several of the improvements in 22 this invention, including setting the search window 23 limits for the DSP to look for the patrol speed 24 frequency in the radar return spectrum." Do you 25 see that?
Page 55 1 MR. QURESHI: Court reporter, is there a 2 way for Mr. Brown to link or attach this document 3 in the Chat window so I can retrieve it now? 4 MR. BROWN: I might be able to have it 5 e-mailed to you right now. Would that work for 6 you? 7 MR. QURESHI: That would be helpful. 8 Thank you. 9 Q. (By Mr. Brown) I'm going to scroll down 10 to the page where the Description of Provisional 11 Application begins. At the top it says GPS 12 Assisted Patrol Speed Search for DSP Traffic Radar. 13 Do you see that, Dr. Anthony? 14 A. Yes. 15 Q. I'll represent to you that this is one 16 of the provisional applications that were 17 incorporated by reference into both the 039 and 602 18 patents. Have you seen a document with this title 19 before? 20 A. I do not recall specifically. 21 Q. I'm going to scroll down to paragraph 22 29 in the document and I'll just let you review 23 that for a moment. You can tell me when you have 24 had an opportunity to review it. 25 MR. QURESHI: Is a paper copy of this in	Page 57 1 A. Yes. 2 Q. It continues -- 3 MR. QURESHI: Just to interject, let me 4 just lodge a running scope objection to questions 5 on this provisional so I don't have to keep 6 restating the same objection to questions on this 7 document. Go ahead, Scott. 8 Q. (By Mr. Brown) It continues. "At the 9 default output rate of once per second there can be 10 a lot of change in the "Speed Over Ground" value if 11 the patrol vehicle is accelerating or 12 decelerating." Do you see that? 13 A. Yes. 14 Q. So that indicates that even at one 15 message per second there could be a lot of change 16 in total value speed in the one second elapsed time 17 period; is that right? 18 MR. QURESHI: Objection to form. 19 A. Well, as I said, physics. If there's 20 acceleration velocity is changing. 21 Q. (By Mr. Brown) It continues. "This can 22 lead to the search window not being in the most 23 accurate location for tracking a patrol vehicle 24 that is changing speed." Do you see that? 25 A. Yes.

Page 58 1 Q. So given the radar enforcement and how 2 the GPS is being used in a moving patrol vehicle, 3 would you agree with me that the one second is the 4 longest interval you would want to take to 5 calculate full speed? 6 MR. QURESHI: Form. 7 A. Again, there is no -- in the claim, 8 what is claimed is not a time interval and what is 9 claimed is not an accuracy. As I describe in the 10 combination in particular with Thomas, Thomas uses 11 GPS as a speedometer to determine the speed and so 12 in the combination Thomas, PROSITA would know how 13 to use Thomas to achieve what is presumptively what 14 is claimed in the 039 or the 602, Thomas in 15 combination with the Aker and Aker 724. 16 Q. And PROSITA would understand in the 17 environment of the invention that you would want to 18 have an update on the speed of the patrol vehicle 19 at no less than one second, a one Hertz rate. 20 Would you agree with that? 21 MR. QURESHI: Form. 22 A. So as I describe in paragraph 29 in the 23 039 declaration, it would have been obvious to a 24 PROSITA to modify the Aker, Aker 724 radar system 25 to receive the current vehicle speed data from a	Page 60 1 appropriate accuracy in this domain, in the 2 Aker/Aker/Thomas combination. 3 Q. Have you read this provisional before 4 which we are marking as Anthony Exhibit 1? 5 A. I don't recall reading this in detail. 6 I don't recall. 7 Q. Do you remember seeing the statement 8 that we have just been discussing before? 9 A. I don't recall. 10 Q. You set forth in paragraph 16 of your 11 039 declaration the level of ordinary skill in the 12 art, paragraphs 16 to 18. Do you see that? 13 A. Yes. 14 Q. How did you determine what the level of 15 ordinary skill in the art was? 16 A. Well, as I describe, "A person of 17 ordinary skill in the art relating to the 039 18 patent, it's my opinion that a person would have a 19 Bachelor of Science degree in an academic 20 discipline emphasizing electrical, mechanical, 21 instrumentation engineering or other disciplines 22 related to signal processing or measurement 23 science, in combination with specific training or 24 at least one to two years of related work 25 experience with Doppler radar systems.
Page 59 1 GPS enabled speedometer as taught by Thomas. Aker 2 discloses receiving a current vehicle speed from a 3 speedometer without limitation to any specific type 4 of speedometer and thus is compatible such as that 5 described by Thomas. Thomas discloses a GPS 6 speedometer and the information available from the 7 GPS can be used to calculate speed, therefore 8 obviating the need. Thomas is directed at 9 controlling speed so as to not break the law and 10 that speed is used in the combination as the 11 speedometer of the vehicle in the Aker/Aker/Thomas 12 combination. 13 Q. My question was, would you agree given 14 the statements in the provisional that a patrol 15 vehicle, if a patrol vehicle is accelerating or 16 decelerating the patrol vehicle speed can change 17 significantly in one second time that would 18 understand, would want to be upgrading actual 19 vehicle speed at least as fast as every second? 20 MR. QURESHI: Form. 21 A. Again, what is described in the -- is 22 claimed in the 039 does not give a specification on 23 accuracy or on update rate, but a PROSITA designed 24 in this would know as described by Thomas to give a 25 GPS enabled velocity signal how to have the	Page 61 1 Alternatively, the person could have also had a 2 Master of Science degree in electrical, mechanical 3 instrumentation engineering or other disciplines 4 related measurement science engineering with less 5 than a year of work-related experience in the same 6 discipline. Based on my experiences, I have a good 7 understanding of the capabilities of a POSTIA. 8 Indeed, I have taught, participated in 9 organizations, and worked closely with many such 10 persons over the course of my career." So these are 11 my opinions. 12 Q. Okay. You just read to us your 13 conclusions. My question is, what factors did you 14 consider to arrive at your opinion about the level 15 of ordinary skill in the art? 16 A. I'm familiarizing myself with the 039 17 and 602 patents and this is my opinion as to what a 18 PROSITA in that space would be. 19 Q. So you read the 039 and the 602 20 patents. Did you do anything else or consider 21 anything else to arrive at your conclusion to who 22 in the ordinary skill in the art would be? 23 A. Again, my familiarity with this space, 24 the literature in the space, my background, this is 25 what my opinion is what a PROSITA is in this space

Page 62 1 relevant to the -- 2 Q. Did you consider any other factors at 3 arriving at your opinions about the level of 4 ordinary skill in the art? 5 A. I'm sorry, can you reask the question? 6 I thought I answered that one. 7 Q. So did you rely on any other factors 8 other than what you have already told us in 9 arriving at your opinion the level of ordinary 10 skill in the art? 11 A. So a person skilled in the art as I 12 described would have these relevant backgrounds 13 related to the topic areas of the 039 and related 14 to the topic areas of the literature that I cited. 15 That's what a PROSITA would have as I describe in 16 paragraph 16. 17 Q. The use of GPS is important to describe 18 in the 039 and 602 patents; correct? 19 A. I'm sorry, your question did not 20 completely come through. 21 MR. QURESHI: Objection; form. It got 22 muddled there for a second in the beginning, Scott. 23 Q. (By Mr. Brown) I'll rephrase it. The 24 use of GPS is important to the inventions in the 25 039 patent; correct?	Page 64 1 element such as that listed in Thomas to provide 2 that speed determining element functionality. 3 Q. Well, Claim 9 requires that there be a 4 GNSS system; correct? 5 A. Yes, you are correct. 6 Q. So would you agree with respect to 7 Claim 9 that GPS is important to the invention? 8 MR. QURESHI: Form. 9 A. And as I describe in the proposed 10 combination, a GPS enabled speedometer as such 11 provided by Thomas would be within the skill set of 12 a PROSITA in the Aker, Aker combination. 13 Q. (By Mr. Brown) Why don't you include 14 any experience with GPS as part of the level of 15 ordinary skill? 16 A. Again, this is what my opinion is and 17 what a person of ordinary skill in the art and a 18 speedometer as enabled by Thomas would be able to 19 provide those speed limiting system or speed 20 measuring system as they propose in the Aker, Aker, 21 Thomas combination. 22 Q. My question is, why don't you include 23 in the GPS as part of the ordinary skill in the 24 art? 25 A. The person that has the type of
Page 63 1 MR. QURESHI: Form. 2 A. So what is described in the claims of 3 the 039 include a speed determining element and a 4 speed determining element is in the 039 highlighted 5 in Column 2, for example, that there's a speed 6 determining element to convert the speed of the 7 patrol vehicle. There's an embodiment further 8 described in Column 2 that uses GPS. It uses a 9 speed determining element and a PROSITA, looking at 10 a speed determining element such as a speedometer 11 would also, as I propose in the combination using 12 Aker and Aker and Thomas, a speed determining 13 element such as what is proposed in Thomas would be 14 motivated to combine that with what is proposed in 15 Aker and Aker. 16 Q. My question wasn't about combination. 17 My question was the GPS an important part of the 18 inventions of the 039 patent? 19 A. So it's claimed the speed determining 20 element configured to determine an output of speed 21 of the patrol vehicle. In the claims I don't see a 22 specific requirement that that speed determining 23 element uses GPS. In the specifications that is 24 described as one of the options and PROSITA would 25 certainly know how to use a speed determining	Page 65 1 experience that is in the electrical engineering, 2 instrumentation engineering, Doppler radar systems, 3 electrical engineering, they would have enough 4 familiarity with GPS systems. I didn't explicitly 5 list it but PROSITA, a person with that knowledge 6 would have sufficient familiarity with GPS systems. 7 Q. Can you turn to, in your binder, 8 Exhibit 1004 which is the Aker patent application? 9 A. Okay. 1004. 10 Q. Yes, and actually just to set the table 11 for this, before you turn there, sorry, go to page 12 11 in your declaration for the 039 patent. It's 13 actually page 14 of 104 in the bottom right-hand 14 corner. 15 A. Which paragraph, which page? 16 Q. Paragraph 27, page 14 of 104. 17 A. Paragraph 27, got it. Okay. 18 Q. So the figure that is reproduced here 19 in your declaration shows on the left-hand side 20 Aker/Aker 724 and then Thomas on the right-hand 21 side. Do you see that? 22 A. Yes. 23 Q. Are you, in your opinion, treating Aker 24 and Aker 724 as essentially one disclosure? 25 MR. QURESHI: Form.

Page 66 1 A. Well, what I'm describing here is a 2 proposed combination of Aker/Aker 724 and Thomas 3 and so what I'm proposing is the combination of 4 those three. 5 Q. (By Mr. Brown) And you show in this 6 figure that there is an optional speedometer link 7 transducer 59; is that correct? 8 A. Correct. 9 Q. Do you know which of the Aker 10 references that figure comes from that's reproduced 11 in your declaration? 12 A. Certainly described there it's Figure 1 13 of Aker, so that's the figure that's in Aker, 14 Figure 1 of Aker and Figure 1 from Thomas. 15 Q. Aker describes that transducer at 16 paragraph 51. Why don't you take a moment to 17 review that. 18 A. Okay. 19 Q. What is a transducer as indicated by 20 Figure 1 of Aker? Strike that question. Let me ask 21 it a different way, Dr. Anthony. 22 As a person skilled in the art, what is 23 a transducer? 24 A. A transducer transduces. It sort of 25 converts signals from one form to another.	Page 68 1 saying a signal, receiving signal from a 2 speedometer without more specificity is to what 3 that signal is. 4 Q. Aker only discloses receiving data from 5 the speedometer of the patrol car; correct? 6 A. Well, I'm not opining specifically 7 about Aker. I'm proposing the combination of Aker, 8 Aker and Thomas and Aker. Aker receives, has the 9 link from the transducer from a speedometer and as 10 the speedometer is taught in Thomas, PROSITA would 11 make that combination. 12 Q. In paragraph 51 it begins by saying, if 13 the speed is with the genus of the invention, 14 wherein patrol car speed is determined from the 15 car's speedometer." Do you see that? 16 A. Yes. 17 Q. There is no other disclosure in Aker of 18 receiving patrol car speed from anything other than 19 the car's speedometer; correct? 20 MR. QURESHI: Objection; form. 21 A. Paragraph 51, and I was not opining 22 exclusively about Aker but what is said is the car 23 speedometer as output to the speedometer linked 24 transducer as I propose it's not limiting the type 25 of speedometer that's used to measure the vehicle
Page 67 1 Q. What signals come from Aker's 2 speedometer to provide something to the digital 3 processor? 4 MR. QURESHI: Form. 5 A. Well, I mean, as described there it's 6 providing a signal or data. A transducer provides 7 a signal or data to the DPS from which indicated 8 speed on the speedometer can be determined for 9 using a moving target speed calculation. 10 Q. (By Mr. Brown) What signals come from 11 the speedometer that require a transducer? 12 A. It's some signal or data from the 13 speedometer. 14 Q. As one skilled in the art do you know 15 what the form of the data is that comes from the 16 car speedometer? 17 MR. QURESHI: Objection; form. 18 A. Well, as I describe in paragraph 29, it 19 would have been obvious to a PROSITA to modify the 20 Aker/Aker 724 radar system to receive current 21 vehicle speed data from a GPS enabled speedometer 22 as taught by Thomas discloses receiving a current 23 vehicle speed from a speedometer without limitation 24 to any specific type of speedometer and is thus 25 capable with the GPS speedometer. Similarly, I'm	Page 69 1 speed. A PROSITA would be motivated to combine as 2 described in paragraphs 28 and for Aker/Aker and in 3 paragraph 6 for the Aker/Aker and Thomas and in 4 that combination the speedometer is enabled by 5 Thomas would be measuring the vehicle speed, 6 providing the vehicle speed signal into the 7 speedometer linked transducer 59. 8 Q. The transducer 59 from Aker is 9 transducing as disclosed by Aker the patrol car's 10 speedometer data for use by the DSP; correct? 11 MR. QURESHI: Form. 12 A. Well, at the risk of repeating myself, 13 and as I describe in paragraph 29, "It would have 14 been obvious to a PROSITA to modify the Aker/Aker 15 724 system to receive the current vehicle speed 16 data from a GPS-enabled speedometer, as taught by 17 Thomas. Aker discloses receiving a current vehicle 18 speed from a speedometer without limitation to any 19 specific type of speedometer and thus is compatible 20 with a GPS speedometer such as that described by 21 Thomas. Thomas discloses the GPS speedometer and 22 states that "the information available from the GPS 23 system can be used to calculate speed; therefore, 24 obviating the need for a separate speed sensor 25 input." Thomas describes such sensors as 'largely

Page 70 1 mechanical and tend to be complex and expensive to 2 fit to a vehicle. Eliminating such sensors may 3 simplify the vehicle design leading to a more 4 robust final product. Further, in the event of an 5 issue with the existing speedometer in a vehicle, 6 such as inaccuracy or mechanical issue, a PROSITA 7 would have been motivated to incorporate Thomas's 8 GPS speedometer, which Thomas emphasizes can be 9 retrofitted to 99 percent of the cars on the road 10 today" and then I go on, "Thomas stresses the ease 11 with which its GPS speedometer can be incorporated 12 into a vehicle." Paragraph 30 and 31, "PROSITA 13 would have found it obvious to modify Aker based on 14 Thomas's teachings because doing so entails the use 15 of known solutions to improve similar systems and 16 methods in the same way," et cetera. So in going 17 on in paragraph 32, "PROSITA it would have 18 been motivated to incorporate the well-known 19 techniques of Thomas into Aker to achieve the 20 predictable benefits described in Thomas. An 21 optional speedometer link transducer 59 provides a 22 signal or data to the DSP from which the indicated 23 speed on the speedometer can be determined for use 24 in moving mode target speed calculations." So as 25 described, the Aker/Aker/Thomas combination	Page 72 1 transducer 59. 2 Q. I'm not asking about Thomas. I'm 3 asking about Aker. Isn't it correct that Aker does 4 not disclose any speedometer other than the patrol 5 car speedometer? 6 A. So as I describe in paragraph 29, as 7 I've answered, "Aker discloses receiving a current 8 vehicle speed from a speedometer without limitation 9 to any specific type of speedometer and thus is 10 capable with a GPS speedometer described by Thomas" 11 and indeed, that would be the patrol vehicle 12 speedometer. 13 Q. Is it accurate to say that Aker 724 14 does not disclose any type of speedometer other 15 than the patrol car speedometer? 16 MR. QURESHI: Objection; form. 17 A. I believe I've answered the question, 18 Mr. Brown. Aker discloses receiving a current 19 vehicle speed from a speedometer and Thomas teaches 20 a speedometer of the vehicle that would provide the 21 vehicle speed signal. 22 Q. (By Mr. Brown) Does Aker 724 disclose 23 within the meets and bounds of that reference a 24 speedometer other than the patrol car speedometer? 25 A. So as I described in paragraph 29 and
Page 71 1 provides a speedometer output signal into the 2 transducer 59 of the Aker/Aker/Thomas combination. 3 Q. The Aker reference only discloses 4 obtaining the patrol vehicle speed from a link to 5 the speedometer of the patrol car; correct? 6 A. As I propose in my combination, Thomas 7 enables a speedometer of the patrol car that 8 provides a link into the Aker/Aker transducer. 9 Q. My question wasn't about Thomas. My 10 question is, Aker only discloses getting the patrol 11 car speed from the speedometer of the patrol car; 12 correct? 13 A. I think I've answered that already. It 14 was -- I was not opining about Aker. Aker 15 describes using a speedometer without any 16 limitation on that speedometer. Thomas teaches a 17 GPS-enabled speedometer, that in the combination of 18 Aker/Aker/Thomas would be used as I described. 19 Q. You keep saying without any limitation 20 to the type of speedometer. My question is, does 21 Aker disclose any type of speedometer other than 22 the patrol car speedometer? 23 A. As I've described in the combination, 24 Thomas provides the patrol car speedometer that is 25 the input to the optional speedometer link	Page 73 1 30 and 31 -- I'm happy to reread them. 2 Q. You don't need to reread them. You 3 have read them three times to me. I'm asking you 4 not about what you said in your declaration 5 verbatim. I'm asking does the Aker 724 reference 6 disclose a speedometer other than the patrol car 7 speedometer? If you don't know, that's fine. 8 A. I know. I've answered the question. 9 In my proposed combination as described in Aker 10 discloses a speedometer of the vehicle and Thomas 11 is that speedometer of the vehicle. 12 Q. Can you answer the question without 13 referring to the combination that you have 14 proposed? 15 A. I don't think that's appropriate 16 because I did not propose anything specifically. 17 It wasn't just Aker by itself. I proposed a 18 combination of Aker/Aker and Thomas as I described. 19 Q. I have been going about an hour and 15. 20 Why don't we take a short break. Ten minutes. 21 MR. QURESHI: Before we do that, I'll 22 ask Brian since it's almost one your time, do you 23 want a little bit longer break to each lunch or do 24 you want a short break, continue and eat later? 25 A. I'm fine to eat later. I'm fine with a

Page 74 1 ten-minute break if that's good for everybody. 2 That would be 12:55 my time. 3 (Whereupon a recess was taken from 4 12:45 p.m. to 12:56 p.m.) 5 Q. Dr. Anthony, would you turn to 6 Exhibit 1005, which is the Thomas reference that 7 you have been referring to. In your own words can 8 you tell me what the problem was that Thomas was 9 trying to address? 10 A. Well, in my own words, in my 11 declaration on page 10, paragraph -- 12 Q. I can read your declaration, Dr. 13 Anthony. Apologies for interrupting. I can read 14 your declaration. Do you have anything that you 15 would phrase any differently in describing the 16 problem that Thomas is trying to address other than 17 the exact words that are written in your 18 declaration? 19 A. I think the words in my declaration 20 capture it well. 21 Q. What is the controller that Thomas 22 proposes used for in Thomas? 23 A. Well, as I describe in paragraph 24, a 24 component of the device is controller 10 that 25 includes a receiver 12 to receive a signal from	Page 76 1 from the speed control system provides an output 2 into inputs of other components; the fuel injectors 3 and as they described in the combination, a PROSITA 4 would use that same vehicle output as input to the 5 speed link transducer of Aker. 6 Q. In Thomas, Thomas proposes controlling 7 the engine so that there will be gradual reductions 8 in speed; is that correct? 9 MR. QURESHI: Form. 10 A. I think -- 11 Q. (By Mr. Brown) I can direct your 12 attention perhaps, Dr. Anthony, to page 6 of 25 in 13 Exhibit 1005 at about line 25 of Thomas. 14 A. Page 6 you said? 15 Q. Page 6 of 25 using the number in the 16 bottom right corner. Let me know when you are 17 there. 18 A. Yes. Page 6. I'm on page 6. 19 Q. At line 25 it says, "The controller 20 preferably reduces the vehicle speed in a 21 predetermined manner and thus avoids potentially 22 dangerous rapid deceleration." Do you see that? 23 A. Yes. 24 Q. So the controller of Thomas is meant to 25 avoid rapid dangerous change in speed; correct?
Page 75 1 global positioning satellites and then going back I 2 cite some paragraphs there in Thomas, page 4 of 3 Thomas, the controller 10 designed to reduce the 4 speed of the vehicle automatically to limit imposed 5 within the zone is illustrated with reference to 6 fuel injection systems. Paragraph 15 or line 15, 7 the controller 10 of the present can be connected 8 to almost any vehicle in the world. So it's using 9 velocity measured from a GPS system to control the 10 speed of a vehicle. 11 Q. And it controls the speed of the 12 vehicle by exerting control of the vehicle engine. 13 MR. QURESHI: Objection; form. 14 A. Well, it goes on to describe how it 15 would be retrofitted for many cars, 99 percent of 16 the cars in the world to control the velocity. 17 Q. (By Mr. Brown) If you look at Figure 1 18 of Thomas, let me know when you are there. 19 A. I extract using Figure 1 of Thomas on 20 my declaration of page 1, Figure 1 of Thomas. 21 Q. That shows a controller 10 that 22 interfaces with an engine management system 26 and 23 fuel injectors 20; is that correct? 24 A. So as described in Figure -- shown in 25 Figure 1, the velocity of the vehicle as determined	Page 77 1 A. So again, I was not opining 2 specifically about Thomas in isolation. The 3 velocity output of the speed control system is then 4 used in a particular way in Thomas but in the 5 proposed combination the velocity provided by 6 Thomas is used as input to the optional speed link 7 transducer. 8 Q. Can you read my question back because I 9 don't think he answered. 10 (Whereupon the question, "So the 11 controller of Thomas is meant to avoid rapid 12 dangerous change in speed; correct?" 13 MR. QURESHI: Objection; form. 14 A. What is described in paragraph 25 of 15 Thomas it says, just to quote it, "The controller 16 preferably reduces the" -- line 25 of page 6 of 17 Thomas, "The controller preferably reduces the 18 vehicle speed in a predetermined manner and thus 19 avoids potentially dangerous rapid deceleration. 20 The predetermined manner is preferably a 21 progressive manner." But again, as I describe in 22 the combination, a PROSITA would use the speed 23 signal provided by 10 as the input to the optional 24 speed link transducer. 25 Q. Based on what you just read from

Page 78 1 Thomas, would you agree that the speed changes that 2 will be affected by the Thomas invention would 3 occur over multiple seconds and not 4 instantaneously? 5 MR. QURESHI: Form. 6 A. I do not believe that Thomas by itself 7 indicates any particular time resolution associated 8 with that. It says in a safe way. Again, I was 9 not opining about Thomas by itself but even so far 10 as you were to take hypothetical your question of 11 it over multiple seconds, a PROSITA would also know 12 that in order to manifest a change over a second 13 you would need to be measuring the signal that you 14 are trying to use for that change over a much finer 15 resolution than that, so many sub seconds in order 16 to have that smooth. The control system would go 17 unstable if you only were making measurement at the 18 rate with which you were trying to control. As 19 proposed in the combination, the sufficiently 20 resolved Thomas speedometer could be used in the 21 combination as I describe in Aker/Aker. 22 Q. The previous page in Thomas, page 5 -- 23 A. Page 5? 24 Q. Yes. I'm going to read to you from 25 line 10.	Page 80 1 MR. QURESHI: Form. 2 A. Well, there's a paragraph there and 3 those sentences are all together in that paragraph. 4 Q. (By Mr. Brown) So your interpretation 5 of that proper art is that sentence I just read, 6 such systems, is that referring to the systems 7 described in the previous sentence? 8 MR. QURESHI: Objection; form. 9 A. I'm sorry, can you repeat the question? 10 Q. (By Mr. Brown) Yes. There's a sentence 11 that says, "Such systems are largely mechanical, 12 tend to be complex and expensive to fit to a 13 vehicle." Do you see that? 14 A. Yes. 15 Q. Is such systems in that sentence 16 referring to the systems described in the immediate 17 previous sentence? 18 A. As I state in the paragraph that talks 19 about their proposed methods as is described in 20 that paragraph, there has been proposed methods of 21 controlling vehicle speed by interrupting the 22 throttle linkage of the vehicle, such systems are 23 largely mechanical, tend to be complex and 24 expensive to fit to a vehicle so presumptively it's 25 talking about the mechanism of the throttle
Page 79 1 A. Okay. 2 Q. Which says, "There has been proposed 3 methods of controlling vehicle speed by 4 interrupting the throttle linkage of the vehicle." 5 Do you see that? 6 A. Yes. 7 Q. What is that referring to? 8 A. Well, as described there widespread 9 needs to be able to ensure the vehicle, proposed 10 methods of controlling vehicle speeds by 11 interrupting the throttle linkage of the vehicle so 12 the link between the throttle and the control but 13 again to try to do this automatically you need a 14 sufficiently resolved measurement signal to 15 manifest an automatic change and PROSITA would know 16 how to use that speedometer enabled by Thomas. 17 Q. The sentence after the one I just read 18 says, "Such systems are largely mechanical, tend to 19 be complex and expensive to fit to a vehicle." Do 20 you see that? 21 A. I do. 22 Q. Those systems being referred to in that 23 sentence refer to one from the previous sentence, 24 which are ones that interrupt the throttle linkage 25 of the vehicle; right?	Page 81 1 linkage. 2 Q. It's also referring to the methods of 3 controlling the throttle linkage; right? 4 A. Then it goes on after line 15, "The 5 present invention seeks to provide a vehicle speed 6 controller which is simple to install on a vehicle" 7 and so then it goes on to describe as I also 8 highlight in my description of Thomas in paragraph 9 24, that using GPS to get the vehicle speed signal 10 which is then fed into the combination of Aker/Aker 11 and Thomas. 12 Q. My question was, did such systems in 13 the sentence we have been discussing also refer to 14 the methods of controlling vehicle speed by 15 interrupting the throttle linkage? 16 A. I'm not sure I really understand the 17 question. 18 Q. Do such systems in the sentence we have 19 been discussing refer to the proposed methods of 20 controlling vehicle speed by interrupting the 21 throttle linkage of the vehicle? 22 MR. QURESHI: Form. 23 A. Well, I think it's sort of answered the 24 question at least in part in my declaration in 25 paragraph 29 and paragraph 30 where I describe

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Page 82 1 Thomas and the reasons to combine Aker/Aker and 2 Thomas. Thomas describes such sensors as largely 3 mechanical and tend to be complex and expensive to 4 fit. That's what we're talking about in that 5 paragraph. 6 Q. (By Mr. Brown) Let me stop you there. 7 Where does Thomas say sensors as largely 8 mechanical, tend to be complex and expensive to fit 9 to a vehicle? 10 A. Well, what Thomas is explicitly 11 proposing there and solving the problem of having 12 an external to the vehicle controller that uses 13 measurements from the GPS system to give an ease to 14 interface signal to then for velocity to feed as 15 input to the throttle link mechanism. So 16 eliminating that sub sensor they simplified the 17 vehicle design leading to a more robust. Such an 18 inaccuracy or mechanical issue a PROSITA would have 19 been motivated to incorporate Thomas's GPS 20 speedometer, which Thomas emphasizes can be 21 retrofitted to 99 percent of the cars today as I 22 proposed in the proposed combination. 23 Q. Can you show me where Thomas says since 24 sensors are largely mechanical, tend to be complex 25 and expensive to fit to a vehicle?	Page 84 1 using a calculated speed computed from the global 2 positioning system." PROSITA reading that would 3 understand that a speedometer being enabled by a 4 GPS as I propose in the combination use as the 5 input signal to the Aker/Aker/Thomas combination. 6 Q. In Thomas's proposal he has any one of 7 those three sources for the speed of the vehicle 8 could be used; correct? 9 A. What is described there is a 10 methodology to the speed of the vehicle. There are 11 three, including GPS, which is what a PROSITA would 12 understand that they could use as the beneficiary 13 combined as I describe in paragraph 29 and onward 14 in the Aker/Aker/Thomas combination. 15 Q. And back on page 5, original page 1 at 16 line 12 where he says, "Such systems are largely 17 mechanical, tend to be expensive to fit to a 18 vehicle," he's not distinguishing or talking about 19 any of the three possible methods that he discloses 20 for determining the speed of the vehicle in that 21 discussion; correct? 22 MR. QURESHI: Form. 23 A. Well, again, I was not opining about 24 Thomas by itself, but I think Thomas in view of 25 Aker and Aker, Thomas describes how a GPS system
Page 83 1 A. Well, what that is describing is that 2 in order to do the throttling, instead of using the 3 speedometer of the car to instead use an ease to 4 integrate into the throttling mechanism, a GPS 5 based speedometer, and so it is describing the 6 benefit of having that GPS-enabled speedometer in 7 order to feed into the throttling system and 8 providing that vehicle speed from the GPS data. 9 Q. Well, Thomas discloses three possible 10 sources of speed, including ABS or the car 11 speedometer or GPS; right? 12 MR. QURESHI: Objection; form. 13 Q. (By Mr. Brown) In fact, strike the 14 question and I'll try it again. 15 If you look at page 9 of 25 in Thomas, 16 starting at about line 9, there are three numbered 17 sources for speed disclosed; correct? 18 A. In page 9, which is page 5 of the top 19 of the original but at line -- the paragraph 20 starting at 5, "The controller 10 also includes 21 means to receive a signal indicative of the vehicle 22 current speed. The speed will normally be measured 23 by one of the following three ways; using an ABS 24 sensor 22 already fitted to the vehicle; using a 25 road speed sensor already fitted to the vehicle and	Page 85 1 can provide the speedometer output for other 2 aspects in a vehicle, including, as I describe 3 here, would be used as the vehicle speed signal 4 into the Aker/Aker/Thomas combination. 5 Q. If you look at page 12 of your 6 declaration, at the bottom of that page there's a 7 sentence that begins and spans to the next page. 8 "Further, in the event of an issue with the 9 existing speedometer in a vehicle such as 10 inaccuracies or mechanical issue, PROSITA would 11 have been motivated to incorporate Thomas's GPS 12 speedometer which Thomas emphasizes can be 13 retrofitted to 99 percent of the cars on the road 14 today." Did I read that correctly? 15 A. Yes. 16 Q. When you refer to in the event of an 17 issue with the existing speedometer in a vehicle, 18 do you mean the speedometer in a specific vehicle 19 having a problem? 20 MR. QURESHI: Objection; form. 21 A. I mean, I think I mean what I say 22 there. In the event of an issue with an existing 23 speedometer in a vehicle, a PROSITA would be 24 motivated to incorporate a GPS speedometer. 25 Q. (By Mr. Brown) I guess I'm trying to

Page 86 1 understand what you mean. I can read what you 2 said. I'm trying to understand, when you say in 3 the event of an issue with the existing speedometer 4 in a vehicle, are you talking about a particular 5 speedometer in a particular vehicle? 6 A. Well, as I describe there, whatever the 7 existing speedometer is in said vehicle. 8 Q. Is it a particular vehicle you're 9 talking about? 10 A. The speedometer of the vehicle. 11 Q. Of one vehicle? 12 MR. QURESHI: Objection; form. 13 A. I think what I said there is quite 14 clear. In the event of an issue with the existing 15 speedometer in a vehicle, such as accuracy or 16 mechanical issue, PROSITA would have been motivated 17 to incorporate, which Thomas emphasizes can be 18 retrofitted into 99 percent of the cars on the road 19 today, and furthermore in paragraph 30, goes on -- 20 I just go on to describe the ease with which a GPS 21 speedometer can be incorporated and as I describe 22 in that sort of full -- under the reasons to 23 combine Aker/Aker/Thomas combination, Thomas 24 speedometer provides a convenient ease to retrofit, 25 easy way to provide a speed signal to the optional	Page 88 1 inside of the controller 10? 2 MR. QURESHI: Objection; form. 3 A. So Figure 2 is described skematic 4 representation of the controller of the present 5 invention. Looking at Figure 2, you have the 6 signal from the vehicle speed that feeds into a 7 comparator and that comparator then generates an 8 output control or normal running, that goes again 9 to generator 16, that then feeds out into the 10 injectors and then eventually there's a signal back 11 from the injector into the generator. 12 Q. So the output from the controller, as 13 depicted by Thomas, are the signals that are sent 14 to the injectors; correct? 15 A. Well, the output as I'm describing in 16 the combination is the vehicle speed, which goes 17 into the comparator and then in the combination 18 that vehicle speed is fed into the speedometer link 19 transducer. In isolation by itself, which I did 20 not opine on, it's using that vehicle speed in a 21 different control system but in the combination 22 that vehicle speed as taught by Thomas in the 23 combination of Aker/Aker/Thomas would be used in 24 the system as I describe. 25 Q. Well, you just said it's taught by
Page 87 1 speedometer link transducer of Aker/Aker. 2 Q. What issues are you referring to in the 3 sentence, "In the event of an issue with the 4 existing speedometer." What issue are you 5 referring to? 6 A. I didn't say the issue. I said an 7 issue, an issue. There can be electrical problems, 8 mechanical problems. If there's an issue PROSITA 9 would know how to use the speedometer of Thomas but 10 in particular, opining not about Thomas by itself 11 but Aker/Aker/Thomas and the speedometer of Thomas, 12 a GPS-enabled speedometer would provide this 13 vehicle speed signal to the optional speedometer 14 linked transducer. 15 Q. If you return to Figure 1 of Thomas, 16 Figure 1 showed how Thomas proposes the controller 17 would be fitted into a vehicle; right? 18 A. I'm sorry, what was the question? 19 Q. Is it correct that Figure 1 shows how 20 Thomas proposes to fit his controller into a 21 vehicle? 22 A. Figure 1 shows the speedometer used to 23 feed into other aspects of a control system to 24 throttle in this case the velocity of the vehicle. 25 Q. Figure 2 shows that part of what is	Page 89 1 Thomas. Thomas teaches only what we see in the 2 figures, correct, that a comparator feeds the 3 regenerator and the output from the control system 4 10 would be voltage signals to the fuel injectors. 5 MR. QURESHI: Objection; form. 6 A. I think you are misrepresenting what 7 I've described here. The vehicle speed, which goes 8 into the comparator, that's coming out of the 9 speedometer of the vehicle and that is at least one 10 of the three options in Thomas; the speed computed 11 from the GPS. That vehicle speed is the input as I 12 highlighted in that earlier figure on page 11 of my 13 declaration. The vehicle speed signal on my page 14 11 is the vehicle speed that is the input to the 15 comparator in the Thomas, page 3, Figure 2. 16 Q. In Thomas, Thomas does not disclose the 17 vehicle speed as an output from the controller; 18 correct? 19 A. Well, Thomas describes using the 20 vehicle speed. That comes from at least as one of 21 the options a GPS system as I describe in the 22 combination, so that is as I've described in the 23 combination. The vehicle speed that is shown in 24 Figure 2 is the vehicle speed that goes into the 25 optional speed link transducer.

Page 90 1 Q. I'm asking, does Thomas disclose the 2 vehicle speed to be an output of controller 10? 3 A. The vehicle speed is used inside of 4 that controller. The vehicle speed can be 5 generated from the GPS. It's one of the signals 6 that's available. It's part of the system. The 7 vehicle speed is the speedometer as enabled by the 8 GPS receiver as I describe in the combination 9 Aker/Aker and Thomas. 10 Q. I didn't understand your answer. Can 11 you answer this yes or no, does Thomas disclose an 12 output of vehicle speed from his controller 10? 13 A. Thomas describes an output of a vehicle 14 speed from the speedometer that's used into the 15 comparator and as I describe in the combination, 16 that vehicle speed would then feed into the speed 17 link transducer of the Aker/Aker/Thomas 18 combination. 19 Q. But Thomas doesn't disclose that the 20 output of the comparator is vehicle speed; correct? 21 A. As I described, I'm not opining about 22 Thomas by itself. Thomas describes a speedometer 23 that has vehicle speed that's used in a particular 24 way and in the proposed combination that vehicle 25 speed, PROSITA would understand how to do, taken as	Page 92 1 longitude of the vehicle is known at a precise 2 time. Two such readings can be subtracted to give 3 distance traveled over time. This can then be used 4 to work out vehicle speed." Did I read that 5 correctly? 6 A. That is what is stated there, yes. 7 Q. And there's no other description on how 8 to use GPS information to determine vehicle speed 9 in Thomas; correct? 10 A. Well, I apologize. I think I missed 11 something there. 12 Q. I'll try it again. There's no other 13 description in Thomas of how to use the information 14 from the GPS to determine vehicle speed other than 15 the passage I just read; correct? 16 MR. QURESHI: Objection; form. 17 A. Well, a PROSITA reading that would know 18 that the GPS system is used to determine speed. 19 What is described there, that is one way to 20 determine speed. Yes, you can indeed do two such 21 readings but certainly a person that is working in 22 the Doppler space and as I described as a PROSITA, 23 GPS systems utilize the Doppler enhancing function. 24 So there's plenty of information. In addition, it 25 doesn't say that that's -- that says it can be, but
Page 91 1 the input to the optional speed link transducer. 2 Q. Is it your understanding that you can 3 ignore teachings of the prior art when you are 4 making combinations? 5 MR. QURESHI: Form. 6 A. Well, there's nothing to Thomas or 7 Aker/Aker that would teach away from what I 8 proposed that a PROSITA would understand. A 9 PROSITA would take, would use the velocity, the 10 speed as taught by Thomas the vehicle speed as I 11 described. It goes into the optional speed link 12 transducer. 13 Q. (By Mr. Brown) Thomas discloses using a 14 time over distance calculation from the GPS signal 15 to determine vehicle speed; correct? 16 MR. QURESHI: Form. 17 A. Well, what is described on page 16, 18 line 12 of the original of Thomas, line 28, theory 19 is to use the information from the DPS system to 20 find speed as I describe in paragraph 44 of my 21 declaration, so it's using the information from the 22 DPS system to determine speed. 23 Q. On the next page, page 17, there's a 24 paragraph that begins at about line 12. It says, 25 "In the GPS method, the absolute latitude and	Page 93 1 a PROSITA using a Doppler system or a Doppler 2 system certainly, but a radar or GPS system would 3 know that there are multiple ways to get the 4 velocity from a GPS system. 5 Q. Does Thomas disclose anywhere within 6 Thomas this Doppler calculation you were just 7 referring to? 8 A. It discloses using GPS, so a PROSITA 9 would know to use GPS to get the velocity of the 10 speedometer. 11 Q. Do you discuss anywhere in your 12 declaration using Doppler information from GPS to 13 determine vehicle speed? 14 MR. QURESHI: Form. 15 A. What I described is using the global 16 positioning system so the current vehicle speed 17 comes from the GPS system, so PROSITA would know to 18 use the GPS system to get the speed and Doppler as 19 input to the Aker/Aker speed link transducer. 20 Q. (By Mr. Brown) My question is, do you 21 discuss the Doppler method using GPS information to 22 determine speed anywhere in your declaration? 23 A. I did not find that necessary in 24 forming my opinions what is described here as GPS, 25 and you were asking about GPS and velocity so I

Page 94 1 answered your question. PROSITA would now then use 2 GPS in the form of speedometer as described by 3 Thomas, provided as input to the Aker/Aker 4 speedometer link transducer. 5 Q. Thomas describes using GPS by the 6 absolute latitude and longitude of the vehicle 7 being known as two different times and determining 8 the speed based on tracking the distance traveled 9 over time; correct? 10 MR. QURESHI: Form. Scott, you were 11 sideways. It was kind of hard to make out what you 12 were saying. Brian, if you heard him you can 13 answer. 14 A. So the Thomas is talking about using 15 GPS and certainly what is described in that 16 paragraph, GPS method, the absolute latitude and 17 longitude of the vehicle is known at a precise 18 time. Two such readings can be subtracted to give 19 distance traveled over time. This can be used to 20 work out the vehicle speed. I do not believe that 21 Thomas is opining on all the possible underpinnings 22 of all the technology that it's talking about but 23 certainly GPS, a PROSITA reading Thomas 24 understanding that a GPS speedometer can be used to 25 calculate velocity would know that that could come	Page 96 1 (Whereupon the question, "What would be 2 required to use a differential radio receiver to 3 improve the accuracy to about ten meters?" 4 MR. QURESHI: In addition to my form 5 objection I have a scope objection as well. 6 A. Mr. Brown, are you asking about how 7 differential GPS works or I guess -- 8 Q. (By Mr. Brown) What is your 9 understanding of how -- let me ask this. Is 10 supporting infrastructure required to use 11 differential radio receivers? 12 MR. QURESHI: Same objection; form and 13 scope. 14 A. Again, I didn't need to opine sort of 15 all the background of sort of what is missing or 16 necessary to include in the definition of GPS. GPS 17 uses ground based reference stations as known 18 locations to help improve -- again, a PROSITA 19 reading Thomas as I describe would know how to use 20 the proposed combination to input speed to the 21 transducer. 22 Q. When Thomas says, "Can improve the 23 accuracy to about ten meters," he means plus or 24 minus ten meters; correct? 25 A. Again, I was not opining specifically
Page 95 1 from the GPS data as is described. Therefore, in 2 my opinion, it was not necessary to opine about the 3 different ways you could do that but a PROSITA 4 would as reading would know to use the speedometer 5 as the output to the input on the Aker/Aker 6 combination. 7 Q. If you look at page 11 in Thomas, he 8 discloses starting at about line 17 that, "GPS 9 receivers allow the termination of the vehicle 10 position to within about 50 to a hundred meters." 11 Do you see that? 12 A. Yes. 13 Q. It then says, "To increase the accuracy 14 of the positioning a differential radio receiver 15 may be connected to the GPS receiver and this will 16 improve the accuracy to about ten meters." Do you 17 see that? 18 A. Yes. 19 Q. What would be required to use a 20 differential radio receiver to improve the accuracy 21 to about ten meters? 22 MR. QURESHI: Objection; form. 23 A. I'm sorry, can you reask the question? 24 Q. (By Mr. Brown) Kathy, would you read it 25 back, please.	Page 97 1 about Thomas by this discussion of differential for 2 position location but generally speaking, I think 3 the accuracy to about ten meters probably means 4 plus or minus five to a range of plus or minus ten. 5 Again, what I was opining was PROSITA reading 6 Thomas in view of Aker/Aker would use the 7 GPS-enabled speedometer, provide the optional link 8 transducer. 9 Q. In the sentence to that, "These 10 receivers allow determination of a vehicle position 11 to within about 50 to 100 meters." Do you see 12 that? 13 A. Yes. 14 Q. Within 50 meters would mean plus or 15 minus 50 meters, wouldn't it? If you were 50 meters 16 too far, that would be within 50 meters? 17 A. Well, sorry, go ahead. 18 Q. Go ahead. 19 A. What is described there, maybe I'm 20 misunderstanding your question, but the receivers 21 allow determination via vehicle position to within 22 about 50 to 100 meters to increase accuracy of the 23 positioning. A differential radio receiver may be 24 connected to the GPS receiver and this will improve 25 the accuracy to about 100 meters. So just reading

25 (Pages 94 - 97)

Page 98 1 that sentence or those paragraphs in isolation 2 through the lens of instrumentation and sort of 3 both the measurement and the accuracy, and I think 4 what is being described there as the accuracy is 5 the plus or minus error bars, and I think that's 6 what is described there as the plus or minus five 7 and the 50 to a hundred. That's not sort of the 8 accuracy. That's sort of the range along which 9 there would be some -- so I guess that would be 10 they are describing maybe plus or minus 50. That's 11 talking about the positioning. Again, PROSITA 12 reading Thomas and understanding that you could use 13 GPS as a velocity measurement in Aker/Aker/Thomas 14 combination and there's no accuracy statement made 15 in the claims of the 039, but I think it would be, 16 PROSITA would know how to get appropriate as 17 described with the proposed combination. 18 Q. Why don't we take a lunch break. 19 A. Okay. 20 Q. How long would you like? 21 A. About a half hour. If people want to 22 go longer, I don't know. I tend to be short on 23 lunch break. 24 MR. QURESHI: Can we make it 40 minutes? 25 MR. BROWN: That's fine with me. Kathy,	Page 100 1 Exhibit 1006 which is the Carmichael reference. Do 2 you have that in front of you? 3 A. Yes. 4 Q. Are you familiar with the Carmichael 5 reference? 6 A. It's the reference that I use in the 7 combination in Ground 1B that talks about 8 Aker/Aker/Thomas and Carmichael and Carmichael is 9 another based on vehicle speed whether the vehicle 10 is moving or stationary. 11 Q. So in Ground 1B you use Carmichael to 12 use the automatic detection system you just 13 mentioned? 14 A. As I describe in page 36, paragraph 90, 15 yes. In the combination of the radar systems of 16 Aker/Aker and Thomas, modified based on the 17 teachings of Carmichael, automatically detect based 18 on vehicle speed whether the vehicle is moving or 19 stationary. 20 Q. If you turn in Carmichael to Claim 9, 21 this is on page 22 of 24. I believe you referenced 22 that claim in Ground 1B. 23 A. Yes. 24 Q. This Claim 9 discloses automatic 25 switching between a stationary mode and a moving
Page 99 1 is that okay with you? 2 THE REPORTER: Yes, sir. That's fine 3 with me. 4 MR. BROWN: That would be 2:30. See you 5 then. 6 (Whereupon a recess was taken from 1:48 7 p.m. to 2:30 p.m.) 8 Q. Let's go back on the record. 9 Dr. Anthony, as part of your preparation for your 10 deposition today did you read the patent owner's 11 preliminary response? 12 A. I may have skimmed through it but I 13 don't think I read it in detail. 14 Q. When I talk about patent owner's 15 preliminary response do you know what I mean? 16 A. I believe that's the response to the -- 17 what is the word I'm looking for, not my deposition 18 but -- 19 Q. Petition? 20 A. Petition, thank you. 21 Q. Did you read the Board's institution 22 decision? 23 A. I may have skimmed through it. I did 24 not read detail. 25 Q. I would like you to turn to	Page 101 1 mode; correct? 2 MR. QURESHI: Form. 3 A. So as described in Carmichael in Claim 4 9, "The apparatus for interfacing between on-board 5 electronics in a vehicle and a radar device as 6 claimed in accordance with Claim 2 wherein said 7 radar device has a moving mode and a stationary 8 mode, said radar device automatically switches to 9 the stationary mode if the vehicle speed 10 information indicates that the speed of the vehicle 11 is zero and automatically switching to the moving 12 mode if the vehicle speed information is not zero." 13 So it makes that determination which mode that the 14 radar should be in based on whether the car speed 15 is zero or not zero? 16 A. That's what is described -- 17 MR. QURESHI: Form. 18 A. -- on Claim 9. 19 Q. (By Mr. Brown) How does Carmichael 20 detect whether the vehicle is moving or not?? 21 A. So as I described in paragraph 37 of my 22 declaration, PROSITA is motivated to use the well 23 known paragraph 00262 of Carmichael which 00262, 24 Figure 9, is a flow chart, automatic manual switch 25 over capability of the radar device. Giving it

Page 102 1 block to 30, Figure 9 is the flow chart. Recent 2 operation, desire to have the radar device switch 3 over to the stationary if the vehicle is stopped. 4 Likewise, desirable to have the radar device 5 switched back to moving mode once the patrol 6 vehicle is moving again. The radar device contains 7 a software menu that operator can use to select 8 between manual and automatic in mode switchover. 9 Q. My question was, in Carmichael where 10 does the radar get the information that the vehicle 11 is moving or not to switch its mode? 12 A. So as is highlighted in Claims 2 and 3 13 of Carmichael, the method as claimed in 1 where the 14 component that meets the criteria of the greatest 15 magnitude indicates the speed of the target vehicle 16 corresponding to said greatest magnitude. 17 (Witness reviewing records) 18 Q. Dr. Anthony, it's been over five 19 minutes. Can you tell me what you are looking at? 20 A. I'm reviewing the Carmichael 1006 21 reference so I can answer your question precisely. 22 Well, so as described starting with Claim 1, it's 23 an apparatus for interfacing between on-board 24 electronics in a vehicle and a radar device as 25 claimed in accordance with Claim 1 wherein said	Page 104 1 with Claim 2 wherein said radar device has a moving 2 mode and a stationary mode, said radar device 3 automatically switching to the stationary mode if 4 the vehicle speed information indicates the speed 5 of the vehicle is zero and automatically switching 6 to the moving mode if the vehicle information is 7 not zero." So it describes getting the velocity 8 from the other electronics, the other systems on 9 board the vehicle and as I describe in the 10 combination, that would be used; that switching 11 mode, the electronics would be the velocity speed 12 coming from the Aker/Aker and Thomas combination. 13 Q. So the vehicle provides the information 14 to the data bus as to whether it's moving or not; 15 is that correct? 16 A. The on-board electronics in the vehicle 17 which as I described in the combination would be 18 the electronics that are of the Aker/Aker and 19 Thomas combination providing that speed to then 20 make the decision between stationary or not 21 stationary. 22 Q. That would come from a vehicle sensor? 23 MR. QURESHI: Objection; form. 24 Q. (By Mr. Brown) Let me restate the 25 question. The information about whether the
Page 103 1 apparatus, comprising: A plurality of data busses 2 for communicating between the apparatus and the 3 on-board electronics, with each bus in said 4 plurality of data busses configured for a different 5 signaling protocol; a data processor for 6 determining the signaling protocol of the on-board 7 electronics by activating at least one of the said 8 plurality of the data busses and for selecting a 9 data bus from the plurality of data busses with a 10 signaling protocol that is compatible with the 11 signaling protocol of the on-board electronics; 12 said data processor communicating with the on-board 13 electronics on the selected data bus to receive the 14 data from the on-board electronics; and said data 15 processor translating the received data into a form 16 compatible with said radar device and communicating 17 the translated data to the radar device. The 18 apparatus in Claim 2; the apparatus for interfacing 19 between on-board electronics in a vehicle and a 20 radar device as claimed in accordance with Claim 1, 21 wherein said received data and said translated data 22 are vehicle speed information," and then going down 23 to Claim 9, so there's the apparatus for 24 interfacing between on-board electronics in a 25 vehicle and radar device as claimed in accordance	Page 105 1 vehicle is moving or not would come from the 2 vehicle, on-board vehicle sensor; correct? 3 A. Well, it would come from the other 4 electronics on the vehicle which as I describe 5 would include the electronics that provide the 6 speed, including that coming from the on-board 7 electronics of the Aker/Aker/Thomas combination. 8 Q. So the on-board electronics are getting 9 their information about whether the vehicle is 10 moving or not from an on-board sensor; correct? 11 MR. QURESHI: Form. 12 A. Well, it was not analyzing Carmichael 13 by itself but even doing so ad hoc here in 1 and 2, 14 it's Claims 1 and 2, it's not explicitly saying the 15 sensor. It's saying the electronics and consistent 16 with what I've described in the combination, the 17 electronics that are embodied in the 18 Aker/Aker/Thomas combination would provide the 19 signal that is then fed into the logic of automatic 20 switching mode as described in Carmichael. 21 Q. Well, in your proposed combination the 22 electronics from the Aker/Aker as you referred to 23 it, would be relying on sensors on the car itself 24 to determine whether the speed is zero or not zero; 25 correct?

Page 106 1 MR. QURESHI: Form. 2 A. Well, I'm not describing Aker/Aker. 3 It's Aker/Aker/Thomas; Aker/Aker/Thomas and 4 Carmichael so Aker/Aker/Thomas/Carmichael 5 combination. Aker/Aker, Thomas uses the velocity 6 from Thomas as the speed of the vehicle. That can 7 also be used for the decision making criteria of 8 the stationary mode which is -- 9 Q. (By Mr. Brown) We're not focussing on 10 Carmichael. Carmichael says it's getting 11 information from the on-board electronics; correct? 12 A. Again, I described what is in 1 and 2 13 of Carmichael, on-board electronics and in the 14 proposed combination -- again, I'm not sort of 15 analyzing Carmichael in isolation but it's 16 receiving this Carmichael information from the 17 electronics which includes speed and not in 18 Carmichael as I highlight the apparatus inner 19 facings and the radar device has a moving mode and 20 stationary mode and the radar device automatically 21 switching to the stationary mode and the vehicle 22 speed indicates the speed of the vehicle is zero 23 and automatically switching to the moving mode if 24 the vehicle information is not zero. So in a 25 supposed combination the speed would be coming from	Page 108 1 electronics that are on the car that are providing 2 the velocity signal to the logic of automatic mode 3 switching in Carmichael. 4 Q. You keep answering a different 5 question. I'm not asking about the combination. 6 I'm asking only in Carmichael. Isn't it true about 7 whether the information is moving or not comes from 8 the OBD? 9 A. I was not opining on Carmichael in 10 isolation. 11 Q. Does that mean you can't answer the 12 question? 13 A. If you let me finish my answer, please, 14 I'll let you finish asking your questions. So in 15 answering the question I'm telling you I did not 16 form an analysis of Carmichael by itself. In the 17 combination, the electronics that are providing the 18 information to the Carmichael logic would be the 19 Aker/Aker/Thomas electronics that are on the 20 vehicle indeed as the electronics of the Carmichael 21 are on the vehicle as well. 22 Q. In the Aker/Aker part of the 23 combination you were talking about, Aker discloses 24 getting information either from the car speedometer 25 or the radar. Where would the information about
Page 107 1 Aker/Aker/Thomas combination, the speed of the 2 vehicle. That would be the electronics. 3 Q. In Carmichael you can reliably 4 determine if the speed is zero or not zero and put 5 that information on the OBD, correct, if the speed 6 is zero? 7 MR. QURESHI: Form. 8 A. Well, what I was describing is the 9 combination. PROSITA reading Aker/Aker and Thomas 10 would understand the benefit of having automatic 11 mode switching, would as I describe, look to 12 Carmichael understanding that switching mode like I 13 said and would use the Aker/Aker/Thomas/Carmichael 14 and the electronics provided by the 15 Aker/Aker/Thomas as the velocity to do the velocity 16 switching logic as described in Carmichael. 17 Q. My question was not about your 18 combination; it was about Carmichael, and you have 19 described that Carmichael obtains information from 20 the OBD and so isn't it accurate to say that in 21 Carmichael the information about whether the car is 22 moving or not would come from the car itself? 23 A. Well, as I describe, the electronics on 24 the car are part of the car so they are describing 25 in the combination Aker/Aker/Thomas are the	Page 109 1 whether the vehicle was moving in the Aker/Aker 2 portion of the combination come from? 3 MR. QURESHI: Form. 4 A. So again, I wasn't analyzing just 5 Aker/Aker. Aker/Aker/Thomas provides the velocity 6 signal and that velocity signal can be in some 7 range from zero to something not zero and a 8 Carmichael person skilled in the art reading 9 Aker/Aker/Thomas, as I propose in combination with 10 Carmichael, would use that relevant signal. If 11 it's zero, if it's not zero in the logic of 12 Carmichael as I describe, being able to switch the 13 two modes back and forth. 14 Q. In Carmichael, is the switch from 15 stationary mode and moving mode made as soon as it 16 receives information from the OBD that the car is 17 moving? 18 MR. QURESHI: Form. 19 A. Well, as I started to describe on page 20 39 under Claim 12 in describing the combination of 21 Aker/Aker/Thomas and Carmichael, and how it meets 22 Claim 12 of the 039, Thomas describes in paragraph 23 97 as described in the combination, Thomas 24 describes a controller 10, the speed determining 25 element that receives the signal from the GPS;

Page 110 1 calculates the vehicle speed from the GPS data. In 2 Thomas the system controller outputs the current 3 vehicle speed; the current vehicle speed changes 4 with time. The Thomas controller sends a stream of 5 intervals at regular intervals including the 6 current speed. These messages comprise the current 7 vehicle speed described in Thomas and then as I go 8 on in 12 describing 12.1 in paragraph 98, 9 Carmichael describes the radar device having a 10 moving mode and stationary mode. Moving mode 11 automatically switches to stationary mode if the 12 vehicle speed indicates the speed of the vehicle is 13 zero and automatically switches to moving mode. If 14 it's not zero; thus, if the control is greater than 15 zero or a predetermined number of successive 16 messages; for example, one patrol vehicle is 17 determined to be moving and similarly as I go on 18 describing how it meets limitation 2 in paragraph 19 99, Carmichael describes the radar device moving to 20 stationary mode. If the patrol vehicle is zero, 21 less than a positive second threshold to 22 predetermined number of successive messages, for 23 example, one, the patrol vehicle is determined to 24 be stationary. So there's the messages 25 communicated between the proposed combination of	Page 112 1 of threshold, certainly one could be a successive 2 message. So could two. 3 Q. (By Mr. Brown) So it's your testimony 4 that the claim term successive messages does not 5 require at least two messages? 6 MR. QURESHI: Form and scope. 7 A. Well, as I read this here, 8 predetermined number of successive messages. So if 9 that predetermined number were one, one. If that 10 predetermined number is two, then it's two, but one 11 or two would also be appropriate thresholds for 12 indicating the threshold. 13 Q. (By Mr. Brown) How can one message be 14 successive messages as set forth in Claim 12? 15 MR. QURESHI: Same objections. 16 A. For a predetermined number of messages, 17 of successive messages, if the threshold is one, if 18 the number of messages received is one and the 19 threshold was one, that's the predetermined number 20 of messages. If it's two, it's two. It's a 21 threshold of the sequence of the successive 22 sequence of messages. 23 Q. (By Mr. Brown) So if there were no 24 messages and the predetermined number was no 25 messages would that be successive messages under
Page 111 1 Aker/Aker/Thomas and then the logic of Carmichael 2 making the division between moving mode or 3 stationary mode. 4 Q. Do you understand that the word 5 successive means one following another? 6 A. Successive means something following 7 something else. The successor means following 8 something else. 9 Q. The claim calls for successive 10 messages, correct, in Claim 12? 11 A. Claim 12, what is described is a first 12 threshold value for a predetermined number of 13 successive messages and as I describe, the 14 predetermined number of successive messages, one 15 message to follow something else. That was not the 16 message. Two messages could also be successive 17 messages but the threshold of messages. 18 Q. Doesn't successive messages require at 19 least two messages? 20 MR. QURESHI: Objection; form. 21 A. I didn't need to opine on the precise 22 but something that is not a message, a message that 23 succeeded something that was not a message would be 24 successive to no message. Two messages in a row 25 would be one message, then two messages. In terms	Page 113 1 the logic you have just stated? 2 MR. QURESHI: Form. 3 A. I don't know how anything is 4 communicated if you don't send a message. 5 Q. (By Mr. Brown) Under your logic the 6 predetermined number of successive messages can be 7 one? 8 A. Certainly. 9 Q. Did Carmichael disclose evaluating more 10 than one message in order to make its automatic 11 switching determination? 12 MR. QURESHI: Form. 13 A. You did no -- again, as I described in 14 the combination, PROSITA would use 15 Aker/Aker/Thomas, which includes the speed 16 measurement and understand the benefit between 17 switching between automatic or automatic and 18 switching between stationary and nonstationary mode 19 and apply the teachings of Carmichael as I've 20 described in my declaration. 21 Q. Kathy, could you read my question back, 22 please. 23 (Whereupon the question, "Did 24 Carmichael disclose evaluating more than one 25 message in order to make its automatic switching

Page 114 1 determination" was read back. 2 Q. Would you answer that question, sir. 3 A. Again, I was not analyzing Carmichael 4 by itself or Thomas by itself or Carmichael by 5 itself. My analysis was in what a PROSITA reading 6 Carmichael in view of Aker/Aker/Thomas would do and 7 they would use the proposed combination to switch 8 between automatic and manual mode as I describe in 9 page 40 of my declaration. 10 Q. My question wasn't about your 11 combination. My question was about Carmichael. 12 Does Carmichael disclose evaluating a threshold of 13 more than one message in a row in order to make its 14 automatic switching determination? 15 MR. QURESHI: Form. 16 A. If there's a specific part of 17 Carmichael you are trying to point me to, I'm happy 18 to go to that section, but again, I was not opining 19 exclusively on any analysis of Carmichael by itself 20 for the proposed combination. So I'm attempting to 21 answer your question in the way that I answered my 22 declaration which is the combination of 23 Aker/Aker/Thomas and Carmichael. 24 Q. Well, I can't find any disclosures in 25 Carmichael of evaluating more than one message in a	Page 116 1 A. Paragraph 98 follows paragraph 97 where 2 I describe -- 3 Q. The question was about paragraph 98, 4 sir. 5 A. Paragraph 98 does indeed follow 6 paragraph 97 and the stream of messages in 7 paragraph 97, Thomas's controller 10 sends a stream 8 of messages at regular intervals including the 9 current vehicle speed of these messages signal 10 described in Thomas and as it goes on in 98, 11 answering, describing how it meets the limitations 12 of 12.1 as previously discussed in the combination 13 meaning combination of Aker/Aker and Thomas. 14 Carmichael describes the radar device versus having 15 a moving mode and stationary mode that 16 automatically switches to stationary mode. If the 17 vehicle speed information decides the speed of the 18 vehicle is zero, it automatic switches to moving 19 mode. If the vehicle speed information is not 20 zero; thus, if the patrol vehicle speed is greater 21 than zero a first threshold or predetermined number 22 of successive messages, e.g., one, the patrol 23 vehicle is determined to be moving. 24 Q. Is it accurate to say that you do not 25 rely on Thomas for the feature of total vehicle
Page 115 1 row in order to make the automatic switching 2 determination so I was asking had you found 3 anything that discloses -- 4 A. As I described -- 5 MR. QURESHI: Objection; form. 6 A. Well, as I described in paragraph 98 7 and 99, PROSITA would in view of Aker/Aker and 8 Thomas, applying the teachings of Carmichael, 9 receive messages from the stream of messages at 10 regular intervals including the current vehicle 11 speed, the patrol vehicle speed when it's greater 12 than zero or some number of messages. It could be 13 one message, could be two messages, but the patrol 14 vehicle would be determined to move or not move 15 depending on the sequence of messages. 16 Q. (By Mr. Brown) Is it correct to say 17 that for Element 12.1 in paragraph 98 of your 18 declaration you only cite to Carmichael? 19 A. No. In 98, as previously discussed in 20 the combination, the combination is what I'm 21 talking about, including now the combination of 22 Aker/Aker/Thomas and Carmichael. 23 Q. Do you cite anything particular in any 24 of the other references other than Carmichael in 25 paragraph 98?	Page 117 1 speed is greater than a one threshold for a 2 predetermined number of successive messages? 3 A. It's fair to say I don't use any 4 reference in isolation. I use the 5 Aker/Aker/Thomas/Carmichael combination in 6 describing how it meets the limitation. 7 Q. Does Thomas disclose thresholding of 8 any kind? 9 MR. QURESHI: Objection; form. 10 A. I'm not proposing Thomas meet anything 11 by itself. I'm proposing 12 Aker/Aker/Thomas/Carmichael. I give the reasons 13 combined and I describe how those meet the 14 limitation. 15 Q. (By Mr. Brown) So you don't know if 16 Thomas discloses thresholding in any sense? 17 MR. QURESHI: Objection; form. 18 Q. (By Mr. Brown) Strike that. Is it fair 19 to say that in your analysis you did not cite to 20 any -- 21 A. I was trying to by reference apply 22 Thomas. You asked me a question. Do you want to 23 hold that question? 24 Q. I'm withdrawing that question. Is it 25 fair to say that you did not cite to any particular

Page 118 1 part of Thomas for the threshold feature that is 2 recited in paragraph 98 of your declaration? 3 MR. GURESHI: Form. 4 A. Well again, I discussed the combination 5 and indeed in Thomas there is a thresholding as a 6 comparator between the vehicle speed and the 7 vehicle speed signal; the one signal in order to 8 manifest a control around the injector system to 9 control velocity but again, I'm opining about the 10 combination of Aker/Aker/Thomas and Carmichael and 11 certainly in the combination that I describe here 12 it meets the limitation. 13 Q. (By Mr. Brown) Did you cite to the 14 Thomas comparator that you just mentioned in that 15 last answer in paragraph 98 of your declaration? 16 A. Well, as I describe as previously 17 discussed in the combination, in the combination 18 that I'm discussing there is the combination of 19 Aker/Aker and Thomas. So Aker/Aker and Thomas 20 include the discussion of speed from the GPS system 21 of Thomas, the radar systems of Aker, and if you 22 want to drill down into just what Thomas talks 23 about, there is the thresholding comparator of the 24 throttling mechanism and so I am talking about 25 Aker/Aker and Thomas and Carmichael in paragraph	Page 120 1 A. So in paragraph 110, 111, here I 2 describe the reasons to combine Shelton, Henderson 3 and Thomas and what I describe there about Thomas, 4 with the information available from the GPS system 5 for speed, in paragraph 111, the ease with which 6 the speedometer can be incorporated; 112, PROSITA 7 would have found it obvious to modify Shelton, 8 Henderson based on Thomas's teaching. So yes, 9 motivation there to combine with Thomas is very 10 similar to the earlier. 11 Q. In your Ground 2B you combine Shelton, 12 Henderson and Thomas in view of Carmichael; is that 13 correct? 14 A. 2B, Shelton, Henderson and Thomas and 15 Carmichael. 16 Q. And the reasons for adding Carmichael 17 are the same in 2B as they were in 1B? 18 A. Pointing folks to paragraph 178 and 179 19 of my declaration, talking about the 20 Shelton/Henderson/Thomas/Carmichael combination, as 21 I describe the use of Carmichael there it's very 22 similar to the Aker/Aker/Thomas/Carmichael 23 combination. 24 Q. Since the deposition began today have 25 you discussed any of your testimony or my questions
Page 119 1 98. 2 Q. So are you saying then that in your 3 combination the comparator of Thomas that is 4 comparing speed, receiver speed to speed limit is 5 also part of the combination that you are proposing 6 with respect to Claim 12? 7 MR. QURESHI: Objection to form. 8 A. You had first asked me if there was any 9 mention of thresholding in Thomas so that's the 10 question I was answering first. And then as well 11 as I describe in the combination, proceeded with 12 know how to use the Aker/Aker/Thomas base with the 13 modification of Carmichael as I describe in doing 14 what is described here in terms of switching 15 between automatic and manual. 16 Q. (By Mr. Brown) I apologize. I didn't 17 realize I hadn't unmuted myself. Let me ask my 18 question. In your Ground 2A you propose to combine 19 Shelton with Henderson and Thomas; is that right? 20 A. In Ground 2A, Shelton, Henderson and 21 Thomas, yes. 22 Q. Would you agree with me that the 23 reasons you articulate for combining Thomas into 24 the combination are the same in Ground 2A as they 25 are in Ground 1A?	Page 121 1 with counsel? 2 A. No. 3 Q. Can you turn to your declaration in 4 respect to the 602 patent which is Exhibit 1003 in 5 the other IPR. 6 MR. QURESHI: Brian, do you need a 7 break? 8 A. I have been sick. My ears are clogged. 9 MR. QURESHI: Before you begin your 10 questions on that declaration, can we take a break? 11 It's been an hour and maybe Brian rest just a tad. 12 A. So let's go 3:45 since it's 3:33. 13 MR. BROWN: That sounds good. 14 (Whereupon a recess was taken from 3:33 15 p.m. to 3:44 p.m.) 16 Q. (By Mr. Brown) Let's go back on the 17 record. Dr. Anthony, I would like you to turn to 18 page 77 of your declaration with regard to the 602 19 patent and let me know when you are there. 20 A. Page 77, yes. 21 Q. I guess let me just clarify. It's page 22 85 of 120. 23 A. Yes. 24 Q. There's a paragraph 222 at the top of 25 this page and the first sentence reads,

Page 122 1 "Specifically, if the radar transceiver limitation 2 of Claims 1 and 9 of the 602 Patent, 1.1 and 9.1, 3 is construed to mean that the radar transceiver 4 (contraction of transmit and receiver), must be 5 configured to transmit and receive radar beams from 6 both of the front zone or the rear zone (the Second 7 Interpretation above), then the limitation is not 8 supported by the specification of the 039 patent." 9 Did I read that correctly? 10 A. Yes. 11 Q. My first question, there's this 12 parenthetical, "the Second Interpretation above." 13 What is that referring to? 14 A. So on page 9 of my declaration I 15 describe starting at paragraph 22, "In addition, I 16 apply that claim interpretations described below. 17 Paragraph 23, "Two alternative interpretations of 18 this claim term are applied herein. Grounds 1A, 19 1B, 2A, 2B apply to the First Interpretation, and 20 Ground 3 applies to the Second Interpretation, 21 paragraph 24 describing the First Interpretation 22 and in paragraph 25 describing the Second 23 Interpretation." 24 Q. Okay. In paragraph 25 you say, "Under 25 this interpretation, likely to be advanced by	Page 124 1 be directional and so consistent with that 2 interpretation is what I'm discussing in Ground 3, 3 specifically in paragraph 222 as described in 4 paragraph 25. 5 Q. I guess my question is, which 6 interpretation is it your opinion as correct for 7 that limitation? 8 A. I do not opine around -- I put forth 9 analyses based on both interpretations. 10 Q. Okay, and you have not reached an 11 opinion as to which of those interpretations is 12 correct? 13 A. I opined on both. 14 Q. You have done both, I understand. Have 15 you formed an opinion as to which of the two is the 16 proper interpretation? 17 A. It wasn't necessary to form an opinion 18 as to the proper -- I offer opinions on both. 19 Q. Do you offer any opinions as to why the 20 claim limitation would be interpreted to require 21 the transceiver to be configured to transmit and 22 receiver radar beams from both the front zone or 23 the rear zone? 24 A. I'm sorry, can you reask the question? 25 (Whereupon the question, "Do you offer
Page 123 1 Patent Owner in the co-pending litigation, the 2 claimed radar transceiver is configured to transmit 3 and receive beams both in a front zone or rear zone 4 which requires the radar transceiver to be 5 directional." Did I read that correctly? 6 A. Yes. 7 Q. Do you know if the patent owner is 8 asserting this interpretation? 9 A. I do not know. 10 Q. In paragraph 222 of your declaration 11 you say, "Specifically if the radar transceiver," 12 et cetera, and I just want to focus on that word 13 if. Are you taking a position that the proper 14 interpretation of this limitation that you are 15 describing in paragraph 222 requires that the 16 transceiver must be configured to transmit and 17 receive radar beams from both of the front zone or 18 the rear zone? 19 MR. QURESHI: Objection; form. 20 A. Well, as I describe, this is relevant 21 to what I put forth as the possible second 22 interpretation. It's configured -- in paragraph 23 25, as I described, configured to transmit and 24 receive radar beams both in the front zone or in a 25 rear zone, which requires the radar transceiver to	Page 125 1 any opinions as to why the claim limitation would 2 be interpreted to be required the transceiver to be 3 configured to transmit and receiver radar beams 4 from both the front zone or the rear zone?" 5 A. Well, as I describe, I did put forth 6 two possible, two alternative interpretations, as I 7 describe in paragraphs 24 and 25. So again, I'm 8 offering opinions on both interpretations without 9 specifying which one was the -- I think both 10 limitations as I describe here are met with as I 11 describe. 12 Q. So my question is, have you offered any 13 opinions as to why the Board should interpret the 14 claim to mean the Second Interpretation as you 15 refer to in your declaration? 16 MR. QURESHI: Form. 17 A. Again, as I put forth in paragraph 24 18 and paragraph 25, I understood in paragraph as I 19 describe in paragraph 25, under that Second 20 Interpretation which I understood from 21 conversations with counsel likely to be advanced by 22 patent owner in co-pending litigation. The 23 transceiver is configured to transmit and receive 24 as discussed in greater detail below. If the claim 25 is interpreted in this manner, the 602 patent is

Page 126 1 not entitled to the claim because the element is 2 not entitled to its claim prior to because an 3 element of its prior claim, 039 patent fails to 4 provide written description for. So I'm not 5 opining to the correctness. I'm offering opinions 6 based on both. 7 Q. Do you know why it is likely to be 8 advanced by patent owner in the co-pending 9 litigation this Second Interpretation? 10 A. As I describe, I understand from 11 counsel. 12 Q. Is that all you know about it? 13 A. Yes. 14 Q. A logical operation requires one or 15 another; correct? 16 MR. QURESHI: Objection; form. 17 A. As I describe here, there are two 18 interpretations that I will offer opinions on 19 without any kind of opinion as to which one is the 20 one, the correct one. 21 Q. (By Mr. Brown) Does the 602 patent have 22 any description of a transceiver that can be 23 configured to transmit from both the front and the 24 rear zone? 25 MR. QURESHI: Form.	Page 128 1 come to different interpretations. 2 Q. (By Mr. Brown) Excluding the claims so 3 including nothing from the words "the invention 4 claim," nothing that followed that phrase but 5 everything else in the patent, is there any 6 embodiment disclosed in the patent of a transceiver 7 that can be configured to transmit and receive 8 radar beams from both the front zone or the rear 9 zone? 10 A. Well, as I describe in that 11 interpretation, the front radar transceiver as 12 described in Column 5, the front radar transceiver, 13 this is in Column 5, line 1, the front radar 14 transceiver must be mounted or in the forward 15 position of the patrol vehicle such as the hood or 16 grill or front bumper of the vehicle. Thus, the 17 first radar beam is transmitted in front of the 18 patrol vehicle also known as the front zone and 19 then continuing in the next paragraph, the rear 20 radar transceiver includes a transmitter, receiver 21 antenna that may be transmitted on the -- mounted 22 or installed going down to line 20, may be mounted 23 or installed in the rear portion of the patrol 24 vehicle. So I think reading and interpreting Claim 25 1 under the cirq would be consistent with reading
Page 127 1 A. I'm sorry, can you repeat your 2 question? 3 Q. (By Mr. Brown) Does the 602 patent 4 disclose any embodiment of a transceiver that can 5 be configured to transmit and receiver radar beams 6 from both the front zone or the rear zone? 7 MR. QURESHI: Form. 8 A. Well, first of all, it's in Claim 1 9 which is described as a radar transceiver 10 configured to transmit and receiver radar beams in 11 a front zone corresponding to an area in front of a 12 patrol vehicle or in a rear zone corresponding to 13 an area behind and then as you describe in 14 paragraph 22 or sorry, 24 and 23, two different 15 interpretations. 16 Q. (By Mr. Brown) Okay. Putting aside the 17 claims, so now everything in the patent except the 18 claims, is there any disclosed embodiment of a 19 transceiver that can be configured to transmit and 20 receiver radar beams from both the front zone or 21 the rear zone? 22 MR. QURESHI: Same objection. 23 A. Again, I offer the bulk interpretations 24 and rereading the Claim 1 and how it's described, I 25 think both interpretations proceed it to reasonably	Page 129 1 that and interpreting as what is described there as 2 well. I think either would support it. 3 Q. Okay. Why don't we take a break. Give 4 me about ten minutes, I might be done. 5 A. Ten minutes. 6 Q. Yes. 7 A. So 4:15. 8 (Whereupon a recess was taken from 4:04 9 p.m. to 4:15 p.m.) 10 Q. All right. I have no further 11 questions. I'll pass the witness. 12 CROSS EXAMINATION 13 BY MR. QURESHI: 14 Q. Dr. Anthony, I just have one question. 15 In view of Mr. Brown's questions today, do you 16 continue to stand by all the opinions in the two 17 declarations that you have discussed with him? 18 A. Yes, I do. 19 Q. I have no further redirect. 20 MR. BROWN: Thank you, Dr. Anthony. 21 A. Thank you. My apologies for my getting 22 sick here. 23 MR. BROWN: Kathy, we need an expedited 24 transcript. This needs to go into a paper which is 25 due in two weeks. How soon can I have it?

Page 130 1 THE REPORTER: Wasif, would you like a 2 copy of the transcript? 3 MR. QURESHI: Yes, we would. Actually, 4 no. We don't need it at this time. Let me talk to 5 my colleague, Chris and see if we need to order it 6 separately from you. 7 (Whereupon deposition proceedings were 8 concluded at 4:13 p.m.) 9 10 11 <u>BRIAN W. ANTHONY, PH.D.</u> 12 13 14 15 16 17 18 19 20 21 22 23 24 25	Page 132 1 Veritext Legal Solutions 2 1100 Superior Ave 3 Suite 1820 4 Cleveland, Ohio 44114 5 Phone: 216-523-1313 6 7 January 28, 2025 8 To: Mr. Qureshi 9 10 Case Name: Applied Concepts, Inc. v. Kustom Signals Inc. 11 12 Veritext Reference Number: 7092701 13 14 Witness: Brian W. Anthony , Ph.D. Deposition Date: 1/24/2025 15 16 Dear Sir/Madam: 17 18 Enclosed please find a deposition transcript. Please have the witness 19 review the transcript and note any changes or corrections on the 20 included errata sheet, indicating the page, line number, change, and 21 the reason for the change. Have the witness' signature notarized and 22 forward the completed page(s) back to us at the Production address 23 shown 24 above, or email to production-midwest@veritext.com. 25 If the errata is not returned within thirty days of your receipt of this letter, the reading and signing will be deemed waived. Sincerely, Production Department NO NOTARY REQUIRED IN CA
Page 131 1 CERTIFICATE 2 STATE OF KANSAS) 3 SEDGWICK COUNTY) 4 I, Kathy R. Bonfiglio, a Certified Shorthand 5 Reporter for the state of Kansas and Missouri, do 6 hereby certify that the within-named witness was by 7 me first duly sworn to testify the truth, that the 8 testimony given in response to the questions 9 propounded, as herein set forth, was first taken in 10 machine shorthand and reduced to writing with 11 computer-aided transcription, and is a true and 12 correct record of the testimony given by the 13 witness. I certify that review of the testimony 14 was requested by the parties. If any changes are 15 made by the deponent during the time period 16 allowed, they will be appended to the transcript. 17 I further certify that I am not a relative or 18 attorney of any of the parties, or financially 19 interested in the action. 20 WITNESS my hand and official seal at Wichita, 21 Sedgwick County, Kansas, this 28th day 22 of January, 2025 23  24 Kathy K. Bonfiglio, CSR RPR 25 VERITEXT LEGAL SOLUTIONS	Page 133 1 DEPOSITION REVIEW 2 CERTIFICATION OF WITNESS 3 4 ASSIGNMENT REFERENCE NO: 7092701 5 CASE NAME: Applied Concepts, Inc. v. Kustom Signals Inc. 6 DATE OF DEPOSITION: 1/24/2025 7 WITNESS' NAME: Brian W. Anthony , Ph.D. 8 In accordance with the Rules of Civil Procedure, I have read the entire transcript of my testimony or it has been read to me. I have made no changes to the testimony as transcribed by the court reporter. 9 Date Brian W. Anthony , Ph.D. 10 Sworn to and subscribed before me, a Notary Public in and for the State and County, 11 the referenced witness did personally appear and acknowledge that: 12 They have read the transcript; 13 They signed the foregoing Sworn Statement; and 14 Their execution of this Statement is of their free act and deed. 15 I have affixed my name and official seal 16 this ____ day of _____, 20____. 17 18 Notary Public 19 Commission Expiration Date 20 21 22 23 24 25

1 DEPOSITION REVIEW 2 CERTIFICATION OF WITNESS 3 ASSIGNMENT REFERENCE NO: 7092701 4 CASE NAME: Applied Concepts, Inc. v. Kustom Signals Inc. 5 DATE OF DEPOSITION: 1/24/2025 6 WITNESS' NAME: Brian W. Anthony , Ph.D. 7 In accordance with the Rules of Civil 8 Procedure, I have read the entire transcript of 9 my testimony or it has been read to me. 10 I have listed my changes on the attached 11 Errata Sheet, listing page and line numbers as 12 well as the reason(s) for the change(s). 13 I request that these changes be entered 14 as part of the record of my testimony. 15 I have executed the Errata Sheet, as well 16 as this Certificate, and request and authorize 17 that both be appended to the transcript of my 18 testimony and be incorporated therein. 19 _____ 20 Date Brian W. Anthony , Ph.D. 21 Sworn to and subscribed before me, a 22 Notary Public in and for the State and County, 23 the referenced witness did personally appear 24 and acknowledge that: 25 They have read the transcript; 26 They have listed all of their corrections 27 in the appended Errata Sheet; 28 They signed the foregoing Sworn 29 Statement; and 30 Their execution of this Statement is of 31 their free act and deed. 32 I have affixed my name and official seal 33 this _____ day of _____, 20____. 34 _____ 35 Notary Public 36 _____ 37 Commission Expiration Date	Page 134	
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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS

COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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