

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GEOTAB USA, INC. AND GEOTAB, INC.,
Petitioners,

v.

OMEGA PATENTS, LLC,
Patent Owner.
U.S. Patent No. 8,032,278
Filing Date: July 3, 2007
Issue Date: October 4, 2011

Case No. IPR2023-00504

**DECLARATION OF CHRISTIAN TREGILLIS, CPA, ABV, CFF,
CLP, IN SUPPORT OF PATENT OWNER'S RESPONSE TO DECISION
INSTITUTING *INTER PARTES* REVIEW**

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I, Christian Tregillis, declare as follows:

I. INTRODUCTION

1. I have been retained by counsel for Omega Patents, LLC (“Omega”) for the above-captioned *inter partes* review (IPR) proceeding. My firm, Hemming Morse, LLP, is being compensated for my time in connection with this IPR at my standard hourly consulting rate of \$620 per hour. I understand that this proceeding involves U.S. Patent No. 8,032,278 (“the ‘278 Patent”) titled “Vehicle Tracking Unit With Download Codes and Associated Methods,” by Kenneth E. Flick, and that the ‘278 Patent is currently assigned to Omega. I understand that the ‘278 Patent has a filing date of July 3, 2007.

2. I have been asked to provide analysis and opinions regarding the ‘278 Patent as regards indications of commercial success and value attributable to the technology covered by the ‘278 Patent, in the context of the Petition for *Inter Partes* Review of the ‘278 Patent, filed by Geotab USA, Inc. and Geotab, Inc. (collectively, “Geotab”).

II. QUALIFICATIONS

3. In formulating my opinions, I have relied, in part, on my training, knowledge, and experience in the field of financial and economic analysis, as well as licensing and intellectual property valuation.

4. I am a Partner at Hemming Morse, LLP, a forensic and financial consulting firm. After obtaining my A.B., with distinction, in economics, from Occidental College in 1989, working for First Interstate Bank of California (now part of Wells Fargo) from 1989 to 1991, and then obtaining an M.B.A. in finance and accounting from the University of Chicago Graduate School of Business in 1993, I have worked in the same field continuously for the past 30 years: analyses and investigations of financial, economic, accounting, and market analyses, in the context of disputes and other situations, such as the negotiation of license agreements and other transactions.

5. To begin my career in this field, I worked at three of what were then called “Big Six” accounting firms, Coopers & Lybrand, LLP, Ernst & Young, LLP, and Deloitte & Touche, LLP, becoming a partner at Deloitte & Touche, LLP, in its Financial Advisory Services practice, and leading the Southern California

Intellectual Asset Management practice group. In 2004, I moved to Kroll, Inc., where I did the type of same work as I have since 1993, which included leading the west coast's Forensic Accounting group and the global Intellectual Property Services group at Kroll, Inc. In 2008, I moved to LECG, Inc., where I led the Damages, Valuation & IP practice area. After working at LitiNomics, Inc., from 2011 to 2016, I joined Hemming Morse, LLP, in 2016.

6. In addition to my paid work, I have served in and led the Economic Damages Section/Task Force of the American Institute of Certified Public Accountants ("AICPA") and the California Society of Certified Public Accountants. In these capacities and over the course of my career generally, I have published and taught on topics within my areas of expertise described above. For example, I was the lead author or co-author of practice aids for the AICPA, including *Discount Rates, Risk, and Uncertainty in Economic Damages Calculations*; *Reasonable Certainty in Economic Damages Calculations*; and *Calculating Lost Profits*. I have also written and presented to other professional groups and at conferences on the value of intellectual property and licensing.

7. I hold the following professional licenses/certifications: Certified Public Accountant (licensed in California, but with reciprocity to practice across the United States), Accredited in Business Valuation, Certified in Financial Forensics, and Certified Licensing Professional.

8. I have testified as an expert in these fields, at more than 60 trials/arbitrations and more than 150 depositions.

9. As such, I agree with the courts that have concluded that I am an expert in these fields (and no court has ever concluded that I am not qualified as an expert in these fields), which I understand to be relevant to this inter partes review.

10. My curriculum vitae is attached as Exhibit A to this declaration.

III. MATERIALS CONSIDERED

11. In forming my opinions, I have reviewed the following documents, as well as any other document cited in this declaration:

Exhibit	Description
N/A	Petition for Inter Partes Review
N/A	Board's Decision
1001	U.S. Patent No. 8,032,278 to Flick (the '278 Patent)

1027	D.I. 144, Jury Verdict, <i>Omega Patents, LLC v. CalAmp Corp.</i> , No. 6:13-cv-1950 (M.D. Fla. Sep. 30, 2019)
1028	D.I. 310, Jury Verdict, <i>Omega Patents, LLC v. CalAmp Corp.</i> , No. 6:13-cv-1950 (M.D. Fla. Feb. 24, 2016)
1090	D.I. 145-80, PL99, <i>Omega Patents, LLC v. CalAmp Corp.</i> , No. 6:13-cv-1950 (M.D. Fla. Feb 25, 2016)
1091	D.I. 145-54, PL68, <i>Omega Patents, LLC v. CalAmp Corp.</i> , No. 6:13-cv-1950 (M.D. Fla. Feb 25, 2016)
1092	D.I. 145-53, PL67, <i>Omega Patents, LLC v. CalAmp Corp.</i> , No. 6:13-cv-1950 (M.D. Fla. Feb 25, 2016)
1093	D.I. 145-67, PL81, <i>Omega Patents, LLC v. CalAmp Corp.</i> , No. 6:13-cv-1950 (M.D. Fla. Feb 25, 2016)
2005	D.I. 297-4, Deposition of Peter Hergesheimer, <i>Omega Patents, LLC v. CalAmp Corp.</i> , No. 6:13-cv-1950 (M.D. Fla. September 24, 2019)
2006	D.I. 297-5, Deposition of Stephen Hall, <i>Omega Patents, LLC v. CalAmp Corp.</i> , No. 6:13-cv-1950 (M.D. Fla. September 24, 2019)
2010	Second Declaration of Mr. Joseph C. McAlexander, III
2015	D.I. 145-43, PL47, <i>Omega Patents, LLC v. CalAmp Corp.</i> , No. 6:13-cv-1950 (M.D. Fla. Feb 25, 2016)
2016	D.I. 145-19, PL1, <i>Omega Patents, LLC v. CalAmp Corp.</i> , No. 6:13-cv-1950 (M.D. Fla. Feb 25, 2016)
2017	D.I. 145-20, PL2, <i>Omega Patents, LLC v. CalAmp Corp.</i> , No. 6:13-cv-1950 (M.D. Fla. Feb 25, 2016)
2018	D.I. 145-34, PL18, <i>Omega Patents, LLC v. CalAmp Corp.</i> , No. 6:13-cv-1950 (M.D. Fla. Feb 25, 2016)
2019	D.I. 145-36, PL20, <i>Omega Patents, LLC v. CalAmp Corp.</i> , No. 6:13-cv-1950 (M.D. Fla. Feb 25, 2016)
2020	D.I. 145-59, PL73, <i>Omega Patents, LLC v. CalAmp Corp.</i> , No. 6:13-cv-1950 (M.D. Fla. Feb 25, 2016)
2021	Master And Cross-License Agreement, dated May 12, 2007, between Omega R&D, Omega Patents and Directed Electronics, Inc.

2022	D.I. 145-38, PL22, <i>Omega Patents, LLC v. CalAmp Corp.</i> , No. 6:13-cv-1950 (M.D. Fla. Feb 25, 2016)
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12. As referenced above, I have also relied on my education, experience, research, training, and knowledge in the relevant field, and my understanding of any applicable legal principles described in this declaration.

13. All of the opinions contained in this declaration are based on the documents and information I reviewed and my knowledge and professional judgment.

14. I reserve the right to supplement and amend any of my opinions in this declaration based on documents, testimony, and other information that becomes available to me after the date of this declaration.

IV. LEGAL UNDERSTANDING

15. While I do not hold myself out to be an expert in the law, I understand that evidence of secondary considerations must be considered when determining obviousness and cannot be discounted, as they play a critical role in the obviousness analysis. I also understand that evidence of secondary considerations can weigh

against a finding of obviousness and such evidence is often relied upon to provide guides against the forbidden use of hindsight.

16. As a result, I describe below evidence I view to be instructive to the question of the value of the '278 Patent, as a secondary consideration in this matter.

V. SUMMARY OF OPINIONS

17. There are multiple indications of the value of the '278 Patent. These indications include:

- licensing agreements and payments under those agreements;
- cost and technical advantages made possible by the patented technology;
- testimony of and touting by users of the patented technology;
- the fact that there is no non-infringing alternative (or "design-around") that licensees have successfully implemented; and
- trial and appellate court conclusions about the value of the '278 Patent.

VI. LICENSING AND PAYMENT HISTORY

18. Omega has a rich licensing history, offering licenses to numerous patents in the automotive security, data bus and tracking industry, including the '278 Patent. Many of Omega's licenses include the '278 Patent, including the following¹:

Schedule 1
Summary of Agreements Including the '278 Patent

Omega v. CalAmp Bates Range	Licensee	Agreement Date	Royalty Effective Date	Type of License	Patents Involved (Including '278)	Minimum Royalty	Add Ons	Additional Royalty Provisions	Features	Expiration Date	Length of License	Years Automatically Renewed	Minimum Monthly Royalty	Minimum Yearly Royalty	Settlement Amount
OMEGA_CAL 007401 - OMEGA_CAL 007410	Accele Electronics, Inc.	2/1/2012	2/1/2012	Data Bus Patent License Agreement Non-exclusive Non-transferable	24 domestic patents; 6 patent applications; 9 foreign patents; 6 foreign patent applications	\$5.00 for each "Category A Licensed Product" (include vehicle remote function control equipment that provides at least one security and/or window control feature) \$20 for each "Category B Licensed Product" (include vehicle remote function control equipment that provides at least one remote engine start control feature based upon Remote Keyless Entry operation) \$10.00 per unit for the first 10,000 units (of the year)	None Noted	All improvements made by the licensee relating to the licensed product during the term of the agreement shall hereinafter become the property of the licensor.	None Noted	2/1/2016	4 years	None Noted	None Noted	\$5,000	\$3,000
OMEGA_CAL 007374 - OMEGA_CAL 007383	Cimble Corporation	2/13/2014	8/1/2014	Non-exclusive Non-transferable	39 Domestic 12 Foreign 3 Domestic Patent Applications	\$0.00 for the next 10,001 to 20,000 units (of the year) \$5.00 per unit for the next 20,001 to a total sales number of products (of the year)	None noted	None Noted	None Noted	7/31/2019	5 years	None Noted	None Noted	\$10,000	\$5,000 (Covers less than 200 units)
OMEGA_CAL 000084 - OMEGA_CAL 000128	Directed Electronics, Inc.	5/12/2007	5/12/2007	Master and Cross-License Agreement Agreement made to "resolve all matters between them" Non-exclusive Non-transferable Cross-License (DEI Grants Omega R&D royalty-free cross-license to DEI patent portfolio)	<u>Databus Patents</u> 22 Domestic Patents 7 Domestic Patent Applications 11 Foreign Patents 7 Foreign Patent Applications <u>Tracker Patents</u> 27 Domestic Patents 9 Domestic Patent Applications	Data bus royalty is \$5.00 per unit Tracker patent royalty is \$2.00 per unit	None Noted	DEI receives Most Favored Nations status Any improvements made by DEI specifically relating to the inventions embodied in the Omega databus and/or tracker patent portfolio shall hereinafter become the property of Omega	None Noted	License lasts until the last of the applicable patents expire.	None Noted	None Noted	None Noted	None Noted	\$5,000,000
OMEGA_CAL 000132 - OMEGA_CAL 000140	Enfora Inc.	5/31/2013	None Noted	Settlement Agreement	5 Domestic	None Noted	None Noted	None Noted	None Noted	None Noted	None Noted	None Noted	None Noted	None Noted	\$195,000
OMEGA_CAL 000171 - OMEGA_CAL 000180	Mid City Engineering	2/1/2010	2/1/2010	Data Bus Patent License and Settlement Agreement Non-Exclusive, Non-Transferable, Non-Assignable	23 Domestic 9 Foreign 9 Domestic Applications 6 Foreign Applications	\$20 for each licensed product (up to \$100,000 per year in royalties) then \$5.00 per product thereafter	None Noted	If the royalties exceed \$100,000 in any given year, the royalty rate will drop to \$5 per product for the rest of the year. All improvements made by the licensee relating to the licensed products shall hereinafter become the property of the licensor.	Licensed products shall only be remote start related products using the vehicle data bus for vehicles from Mercedes Benz, Volkswagen, Audi or BMW	2/1/2015	5 Years	None Noted	None Noted	\$5,000	\$7,385 (For sales of less than 877 units, at least \$8.42 per unit)
OMEGA_CAL 000181 - OMEGA_CAL 000195	Numerex Solutions, LLC	2/1/2011	2/1/2011	Patent license and settlement agreement Non-exclusive Non-transferable	59 US patents, 9 foreign patents, 12 US patent applications and 6 foreign patent applications	\$2.00 royalty for any licensed tracking unit without any data bus functionality. \$5.00 royalty for any licensed tracking unit with the limited data bus functionality	None Noted	Numerex receives Most Favored Nation status Any data bus related improvements made by Numerex shall hereinafter become the property of Omega	None Noted	Agreement shall extend through the last to expire patent of the Licensed Patents.	None Noted	None Noted	None Noted	None Noted	\$100,000

¹ Ex 1090, 1091, 1092, 1093, 2020, 2021.

19. All told, licenses to Omega's patents have generated more than \$70MM in license fees, in all forms (e.g., initial and running royalty payments).²

20. These agreements consistently have implemented a structure of \$5.00 per unit for products that employ technology that accesses the data bus, and \$2.00 if the unit does not access the data bus but does use tracking technology. Importantly, although some of these agreements have dates that precede the issuance of the '278 Patent, the '278 Patent's technology was included in these agreements where the license extended to related patents, such as U.S. Patent No. 6,606,561, or that reference the patent application/publication associated with the '278 Patent (where the '278 Patent had not yet issued).

VII. COST AND TECHNICAL ADVANTAGES REALIZED BY USING THE PATENTED TECHNOLOGY

21. Evidence indicates that the use of the patented technology, as compared to a non-infringing device, is commercially and functionally valuable.

22. One of the advantages of the '278 patented technology relates to the simplicity of being able to access a data bus, which is found on all modern vehicles. I understand that the '278 Patent covers a vehicle tracking device compatible with

² Omega royalty report April 2023, attached hereto.

the vehicle data bus of multiple vehicles,³ and the patent also covers the ability of a multi-vehicle tracking device to be updated wirelessly or via a wired connection.⁴ Wireless connections can occur via multiple wireless technologies including cellular, satellite, WiFi, and Bluetooth.⁵

23. In this context, I understand that the ‘278 Patent falls under what Omega often refers to as its “Data Bus Patents,” which increase the ease of installing automobile tracking and control systems.⁶ The system’s controller is connected to the vehicle data communications bus of a vehicle, rather than being wired directly to the various components of the automobile.⁷ Vehicle devices and controllers are also connected to the vehicle data communications bus.⁸ Therefore, covered devices can communicate with the various vehicle devices by connecting to the vehicle data communications bus rather than being directly connected to each device.⁹ I understand that this reduces installation complexity and time.¹⁰

³ Ex 1001.

⁴ Ex 1001.

⁵ Ex 1001.

⁶ Discussion with Joseph McAlexander.

⁷ Discussion with Joseph McAlexander.

⁸ Discussion with Joseph McAlexander.

⁹ Discussion with Joseph McAlexander.

¹⁰ Discussion with Joseph McAlexander.

24. Vehicles made in different years and by different manufacturers frequently require different electronic “command signals” to activate devices like a vehicle lock actuator or starter.¹¹ Vehicle manufacturers, such as General Motors, use proprietary protocols in their vehicles.¹² Devices utilizing the Data Bus Patents contain the codes for multiple vehicles and can issue the correct command code for the vehicle to which the tracking system is connected.¹³

25. As a result, I understand that incorporating the Data Bus Patents allows device manufacturers, integrators, and solution providers to reduce the number of different models of control and tracking systems.¹⁴ I understand that a telemetry device manufacturer that does not utilize the Data Bus Patents would need to manually configure a controller, upon installation in a specific vehicle, or manufacture multiple variations of the same device, each one made for a specific vehicle.¹⁵

¹¹ Discussion with Joseph McAlexander.

¹² Ex. 2006, pp. 125-126.

¹³ Discussion with Joseph McAlexander.

¹⁴ Discussion with Joseph McAlexander.

¹⁵ Discussion with Joseph McAlexander.

26. I understand that the ‘278 Patent also benefits users by allowing them to update devices remotely.¹⁶ For example, a fleet manager could change when a device sends a speed exceeded notification, or the manager could update software or firmware related to the device, by communicating on the data bus.¹⁷

27. The ‘278 Patent allows customers (e.g., integrators and solution providers) to better serve their customers/end users by being able to quickly install tracking and control systems.¹⁸ The Data Bus Patents allow customers to easily plug each tracking device into end users’ fleet vehicles, for example, without concern that that the fleet vehicles all be from the same manufacturer or model.¹⁹ Once installed, the devices can be easily managed over-the-air—changes can be made to the devices without requiring drivers to make a trip to a home or branch office.²⁰ The Tracking Patent technology covered by the ‘278 Patent also provides an easy and efficient ways to deploy a geofence and send notifications when a geofence border has been crossed.²¹ The Tracking Patent technology covered by the ‘278 Patent also provides

¹⁶ Discussion with Joseph McAlexander.

¹⁷ Discussion with Joseph McAlexander.

¹⁸ Discussion with Joseph McAlexander.

¹⁹ Discussion with Joseph McAlexander.

²⁰ Discussion with Joseph McAlexander.

²¹ Discussion with Joseph McAlexander.

an easy-to-install, efficient, reliable way for a device to monitor a vehicle's speed and send notification if certain rules are violated.²²

VIII. TESTIMONY OF AND TOUTING BY USERS OF THE PATENTED TECHNOLOGY

28. CalAmp Corp., a company that sells telemetry devices, was previously found by a jury to infringe the '278 Patent.²³ The infringing devices were promoted as being "an ideal solution for automotive insurance, driver behavior management, auto rental and automotive applications **when access to the vehicle diagnostics interface (OBD-II) is required**" (emphasis added).²⁴ CalAmp marketed the Accused Products as being able to access vehicle diagnostic interface data, track vehicle speed and location, and to be configured and updated over-the-air,²⁵ all of which I understand to be covered by the '278 Patent:

²² Discussion with Joseph McAlexander.

²³ Ex 1028. I understanding this finding of infringement was affirmed on appeal.

²⁴ Ex 2016.

²⁵ Ex 2016.

NEWS BULLETIN
FROM:



FOR RELEASE

**CalAmp Targets Auto Insurance Market
with New Location Messaging Unit**

*Field trials demonstrate ability of LMU-3000 to deliver location
and operating data to assess vehicle use and driver behavior*

OXNARD, CA, September 26, 2011 – CalAmp Corp. (NASDAQ: CAMP), a leading provider of wireless products, services and solutions, today introduced a new location monitoring and messaging device designed specifically for commercial and consumer auto insurance applications, a market that represents more than 250 million registered vehicles in the United States alone.

29. CalAmp’s telemetry devices that use the ‘278 Patent’s technology connect to vehicles via a data port, which is required on all light-duty vehicles and trucks manufactured after 1996.²⁶ The California Air Resources Board developed the first generation of On-Board Diagnostics (“OBD” and the “OBD I” generation) and implemented it in 1988.²⁷ Following that, the Society of Automotive Engineers (“SAE”) developed a second generation of OBD standards, known as “OBD II” or

²⁶ “On-Board Diagnostics (OBD) Basic Information,” United States Environmental Protection Agency, <<http://www.epa.gov/obd/basic.htm>>; “On-Board Diagnostic Guidance – Diagnostic Link Connector Location and Accessibility,” United States Environmental Protection Agency, December 14, 1998, <<http://www.epa.gov/obd/pubs/vpcd9814.txt>>.

²⁷ “On-Board Diagnostics (OBD) Basic Information,” United States Environmental Protection Agency, <<http://www.epa.gov/obd/basic.htm>>.

“OBD 2.”²⁸ All 1996 and later light-duty vehicles and trucks are required to be OBD II compliant, pursuant to the U.S.’s Clean Air Act Amendments of 1990.²⁹ Although modern vehicles are OBD II compliant, there are multiple OBD II protocols, as well as proprietary sensor readings.³⁰ The OBD II standard includes a data port that allows users to connect using a data link connector.³¹ CalAmp’s products that use the ’278 Patent’s technology connect to vehicles using this data port.



CALAMP0000304³²

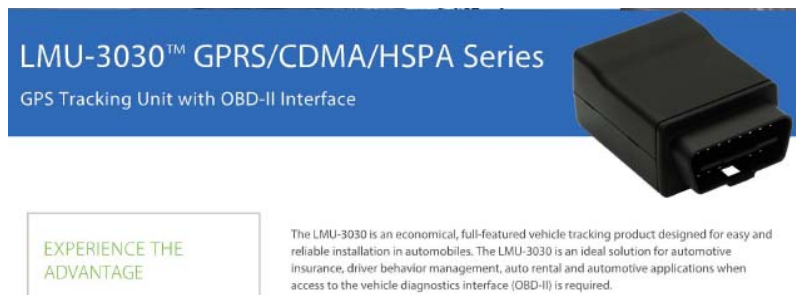
²⁸ “On-Board Diagnostics (OBD) Basic Information,” United States Environmental Protection Agency, <<http://www.epa.gov/obd/basic.htm>>.

²⁹ “On-Board Diagnostics (OBD) Basic Information,” United States Environmental Protection Agency, <<http://www.epa.gov/obd/basic.htm>>.

³⁰ “OBD-II Background,” The OBD II Home Page, <<http://www.obdii.com/background.html>>.

³¹ “On-Board Diagnostic Guidance – Diagnostic Link Connector Location and Accessibility,” United States Environmental Protection Agency, December 14, 1998, <<http://www.epa.gov/obd/pubs/vpcd9814.txt>>.

³² Ex 2016.



CALAMP0000308³³

30. CalAmp’s products that use the ’278 Patent’s technology are sold independently or in conjunction with CalAmp’s FleetOutlook software.³⁴ CalAmp’s LMU 3000 and 3030 are marketed for the insurance, roadside assistance, and fleet management solutions provider industries.³⁵

31. CalAmp’s products that use the ’278 Patent’s technology have the capability to report multiple types of events to users. CalAmp and CalAmp’s customers can program the infringing products to determine which events will trigger reports using Programmable Event Generator (“PEG”) scripts, which will send alerts based upon customer-defined criteria.

This advanced on-board alert engine monitors external conditions and supports customer-defined, exception-based rules. **PEG continuously monitors the vehicle**

³³ Ex 2017.

³⁴ Ex 2006, pp. 57, 135.

³⁵ Ex 2006, pp. 64-67. See, also, EX 2022.

environment and responds instantaneously to pre-defined threshold conditions related to time, date, **motion, location, geo-zone**, input and other event combinations.³⁶

[Emphasis Added]

32. Available reports on the infringing CalAmp products include “threshold-based” speed alerts and reporting whether a vehicle crosses a border zone, as seen in the graphic below, and covered by the ‘278 Patent.³⁷



³⁶ “Programmable Event Generator,” CalAmp, <<http://www.calamp.com/products/peg>>.

³⁷ “Programmable Event Generator,” CalAmp, <<http://www.calamp.com/products/peg>>.

33. CalAmp's promotional materials showed that the infringing products use the '278 Patent's technology to enable compatibility with multiple vehicle messaging protocols via an OBD interface. CalAmp promoted the LMU-3030 as being compatible with multiple OBD II bus protocols and "other OEM interfaces."³⁸

34. CalAmp has also promoted the "automatic detection of vehicle interface services."

OBD DATA EXTRACTION

Detection	Automatic detection of vehicle interface services
Extraction	Transmission of standard EOBD codes, plus manufacturer specific codes
Scripts	Download of vehicle specific diagnostic scripts dependant on vehicle model variant

CALAMP0000309

35. CalAmp press releases have emphasized the multi-vehicle compatibility of the LMU-3030.

The "plug-and-go" LMU-3030 can be **quickly and easily installed** through its OBD-II vehicle data bus interface, providing **direct access to vehicle information and fault codes** that help assess location and operational characteristics.³⁹

³⁸ Ex 2017.

³⁹ <https://www.globenewswire.com/en/news-release/2014/02/18/1032057/0/en/CalAmp-to-Supply-Wireless-Tracking-and-Monitoring-Devices-to-Modus-for-Usage-Based-Insurance-Services.html>.

[Emphasis Added]

36. CalAmp designed its products that use the '278 Patent's technology to be compatible with multiple vehicles. The Commercial Requirements Specification for the Accused Products include capabilities to support different OBD II protocols, read vehicle IDs, and automatically detect and configure the OBD II port.⁴⁰

37. CalAmp also promoted the ability to update CalAmp's products that use the '278 Patent's technology to download data wirelessly via over-the-air updates. To provide such wireless downloads, CalAmp provided its Provisioning/Programming, Update, and Logistical System ("PULS") for use with CalAmp's infringing devices.⁴¹ PULS allows users to configure LMUs, update PEG scripts, and update firmware over-the-air.⁴²

⁴⁰ Ex 2018, p. 7; Ex 2019, p. 8.

⁴¹ "Provisioning/Programming, Update, and Logistical System," CalAmp, <<http://www.calamp.com/products/puls>>.

⁴² "Provisioning/Programming, Update, and Logistical System," CalAmp, <<http://www.calamp.com/products/puls>>.

OVER-THE-AIR SERVICEABILITY

The LMU-3000 leverages CalAmp's management and maintenance system, PULS™ (Programming, Updates, and Logistics System), for over-the-air configuration parameters, PEG rules, and firmware. This out-of-the-box hands free configuration and automatic post-installation upgrades can monitor unit health status across your customers' fleets to identify issues before they become expensive problems.

CALAMP0000304⁴³

38. This advantage was described by Stephen Hall, CalAmp's Director of System Engineering and Technology at CalAmp, in his deposition.

Q. Do you know what's driving the increased demand for products like the 3000 and the 3030?

A. It comes from a variety of places, roadside services, insurance. You know, there's a lot – in the fleet management space there's a lot of pressure to – **fleet management solutions have typically been professionally installed which is very expensive. It can cost more to install it than the device itself, and so just a simple plug-in solution is extremely attractive.**⁴⁴

[Emphasis added]

39. Mr. Hall further explained in his deposition how CalAmp's reseller customers enjoy benefits of the '278 Patent's technology, and specifically the ability

⁴³ Ex 2016.

⁴⁴ Ex 2006, p. 64.

to take a solution that works for many applications and rebrand it, adding additional features.⁴⁵

CalAmp does not generally in any of our businesses sell directly to end users. In this small little set of high end devices that I mentioned that are more like data routers, in some of those cases they do sell directly to the end market; but that's a small portion of the business.

In these turnkey solutions that I described as well as an MRM's customer base, **we're typically selling to an OEM or a solution provider who is then branding that, adding their piece of value to it.** If it's an MRM customer, they're doing all the software and the delivery side of things facing the customer, and they do all the marketing to the end customer, the end market. **Our business model is essentially an OEM-type business model.**

[Emphasis Added]

40. Also reflecting the economic value of the technology in the '278 Patent, Mr. Hall explained that the LMU-3000, one of the CalAmp units deemed infringing by a Florida jury, was driven by a "general market need that we heard from a number of customers [who sought] a need for a simple installation type of solution and the

⁴⁵ Ex 2006, pp. 23-24.

opportunity to enhance the capability of the product that we could offer with certain data items coming off of the vehicle bus.”⁴⁶

41. Similarly, Mr. Hergesheimer, a director of software and architecture for CalAmp, testified that the LMU-3000 was a sales-driven request from customers who expressed a demand for the features therein.⁴⁷ Mr. Hergesheimer also confirmed that multi-vehicle compatibility was a value proposition, and without such a capability, its products would have limited value because it allows specific products to service more vehicles, increasing ease of use and decreasing costs.⁴⁸

IX. NO DESIGN AROUND

42. One of the other factors that affects the value of intellectual property, and patents in particular, is the cost to design around the licensed technology or implement a different, non-infringing means to accomplish this functionality. If another alternative was or would have been available, this impacts the value of the technology, and therefore the royalty that a willing licensee would be willing to pay for a license to use patented technology. This is a concept that has been considered

⁴⁶ Ex 2005, 40:20-41:3.

⁴⁷ Ex 2005, 40:6-41:3.

⁴⁸ Ex 2005, 46:25-28:19.

by courts in the past, with the Court of Appeals for the Federal Circuit (“CAFC”) ruling in 1999 in *Odetics, Inc. v. Storage Technology Corp.* that “one expects [an infringer] would pay as much as it would cost to shift to a non-infringing product.”⁴⁹

43. In the instant context, I am unaware of any non-infringing way to sell a telemetry device that uses the data bus/OBD II port that is on vehicles manufactured in this millennium, while also using Tracker technology, as covered by the ‘278 Patent, due to a lack of non-infringing substitutes. The nearest alternative of which I am aware is to make, stock, and use a series of devices that do not access the data bus/OBD II port (even after the expiration of Omega’s other patents have expired, leaving only the ‘278 Patent), which I understand is commercially unacceptable. This was a disadvantage recognized by CalAmp’s engineers, who acknowledged that, without multi-vehicle capability, the more expensive/less desirable option was to use multiple vehicle-specific devices.⁵⁰

44. The lack of viable design arounds was acknowledged by employees of CalAmp in prior litigation with Omega. For example, Mr. Hergesheimer

⁴⁹ *Odetics, Inc. v. Storage Technology Corp.*, 185 F.3d 1259, 1261 (Fed. Cir. 1999).

⁵⁰ Ex 2005, 46:25-47:19.

acknowledged that CalAmp did not implement any design alternatives, and admitted CalAmp never “came up with any alternative designs.” (Ex. 2004, 44:23-45:19.) Similarly, CalAmp executive Gallin Chen explained to CalAmp’s patent counsel that claim 13 of the ‘278 Patent would be “harder to avoid” infringement because it implicated the manner in which CalAmp programmed its infringing units. (Ex. 2015.)

X. TRIAL AND APPELLATE COURT DECISIONS

45. In patent litigations in which Omega has brought suit for infringement of the ‘278 Patent, juries and courts have determined/found that accused users have infringed the ‘278 Patent. For example, in the 2016 trial in *Omega Patents v. CalAmp* (“CalAmp 1”), the jury found that the ‘278 Patent was valid, and CalAmp infringed that patent, awarding \$6.38 per unit in royalties, totaling \$2,975,200 in damages (prior to prejudgment interest).⁵¹ After that ruling was remanded to the trial court for a second trial, that jury also found that the ‘278 Patent was valid, and CalAmp infringed that patent, awarding \$5.00 per unit in royalties, totaling \$4,586,111 in damages (prior to prejudgment interest).⁵²

⁵¹ Ex 1027.

⁵² Ex 1028.

XI. CONCLUSION

46. As described above, there are multiple indications that users (e.g., sellers, resellers, and end users of covered telemetry devices) of the technology covered by the '278 Patent have gained advantages from that technology, including license agreements with tens of millions of dollars paid, saved costs and technical advantages, testimony and touting by sellers, the lack of a commercially acceptable design-around/non-infringing alternative, and rulings by trial courts and juries.

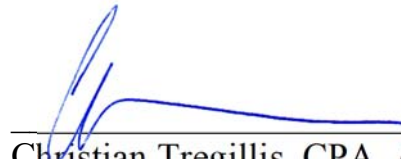
47. In signing this declaration, I recognize that the declaration will be filed as evidence in a contested case before the Patent Trial and Appeal Board of the United States Patent and Trademark Office. I also recognize that I may be subject to cross-examination in the case and that cross-examination will take place within the United States. If cross-examination is required of me, I will appear for cross-examination within the United States during the time allotted for cross-examination.

48. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful

false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Executed this 17th date of October 2023.

Respectfully submitted,

A handwritten signature in blue ink, consisting of a stylized 'C' followed by a horizontal line that tapers off to the right.

Christian Tregillis, CPA, ABV, CFF, CLP



HEMMING | MORSE

FORENSIC & FINANCIAL CONSULTANTS

Christian Tregillis, CPA, ABV, CFF, CLP Partner

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Summary

As a partner in Hemming Morse, Christian Tregillis analyzes financial, accounting, economic, statistical, and market issues, primarily relating to disputes, valuations, and the negotiation of license agreements covering the use of intellectual property. In his 30-year career, he has participated in mediations and has testified in over 160 matters, in state and federal courts and arbitration venues, including more than 60 trials/arbitrations. His testimony has been almost exactly evenly split between plaintiffs/claimants and defendants/respondents.

Before joining Hemming Morse, Mr. Tregillis was the leader of the Damages, Valuation & IP practice area globally for LECG. Prior to that he led the Forensic Accounting & Litigation Consulting group in the Western U.S. for Kroll, Inc., following 11 years at “big four” accounting firms, including as a Partner in the Financial Advisory Services practice at Deloitte & Touche. Early in his career he spent two years at First Interstate Bank, where he helped design a portfolio hedging system to manage interest rate exposure, valued acquisition targets and lines of business, and statistically forecasted loan losses.

Mr. Tregillis is a past Chair of the Economic Damages Task Force of the American Institute of Certified Public Accountants, for which he has authored practice aids and taught on the calculation of economic damages and related topics. He is also a past Chair of the Economic Damages Section and a current member of the Steering Committee of the Forensic Services Section of the California Society of Certified Public Accountants. In addition, he is a past co-chair of committees of Certified Licensing Professionals. From 2003 to 2007 he was on the Board of Trustees of the Center for Law in the Public Interest and served as the Center’s Chief Financial Officer.

Education and Certifications

- Occidental College, A.B. Economics with Distinction
- University of Chicago Graduate School of Business, M.B.A. Finance and Accounting
- Certified Public Accountant, Licensed in California and Certified in Illinois
- Accredited in Business Valuation, American Institute of Certified Public Accountants
- Certified in Financial Forensics, American Institute of Certified Public Accountants
- Certified Licensing Professional, Licensing Executives Society



Select Engagements

- ***Seller of systems for detection of railway track imperfections v. seller of systems for railway track imperfections.*** The plaintiff alleged that the defendant infringed the plaintiff's patents related to systems and software used to detect imperfections in railway track. Mr. Tregillis analyzed the availability of lost profits as a measure of damages and estimated damages in the form of both lost profits and a reasonable royalty. He testified at a deposition and trial.
- ***Sound technology company adv. software company.*** The parties signed multiple license agreements over a several years to permit the software company to use the sound technology company's encoders and decoders (codecs) in video and similar software products available to the public. After the software company shifted to a cloud-based SaaS business model, the parties had different interpretations of what the terms of the licenses were and what the applicable royalties were, with the parties filing claims against each other for a combination of breach of contract and copyright infringement causes of action. Mr. Tregillis quantified damages related to each of the claims and counterclaims, including estimation of the value of a license for the use made in the software.
- ***Inventor v. vehicle tracking device company.*** The plaintiff accused the defendant of infringing the plaintiff's patents covering vehicle-tracking technology, such as are used in fleet vehicles to monitor location and other metrics, including rapid acceleration and deceleration. Mr. Tregillis was deposed and testified at trial regarding reasonable royalty damages and the effect of the hypothetical negotiation on a most favored nations clause in the plaintiff's other license agreements. After the case was appealed to the Court of Appeals for the Federal Circuit and remanded, Mr. Tregillis testified a second time at trial; after the case was remanded a second time, the matter settled.
- ***Valuation of patent portfolio for license agreement.*** Mr. Tregillis valued patents owned and used by a company that manufactures power management equipment used in computers, routers, and other technological products. The analysis was performed to set the running royalty and up-front payments to be made by an Original Equipment Manufacturer (OEM) for the use of the patented technology in its routers and switches. Mr. Tregillis provided proposed agreement terms for use in license negotiations.
- ***Smartphone and related technology company adv. software and technology company.*** The parties had multiple claims and litigations against each other, pertaining to patent infringement and related causes of action regarding the parties' smartphones, networks, and communications functionality. Mr. Tregillis was deposed in one of the matters, which was consolidated to the district court in the state of Washington, and quantified patent infringement damages related to five patents-in-suit. He was deposed on his analysis; the case was later dismissed as part of a global settlement.
- ***University patent consulting and licensing negotiation assistance.*** A Nobel-Prize-winning professor, along with scientists from another university, developed and patented technology related to fuel cells. Mr. Tregillis consulted with the universities on how to maximize their return on the technology, including evaluation of selling the technology, various licensing alternatives, and participation and ownership in joint ventures - also considering tax consequences. He additionally participated in the negotiation of the structuring of a joint venture to commercialize the technology, including a license to the universities.



- ***Wireless/network infrastructure company v. wireless/network infrastructure companies.*** The plaintiff accused the defendants of infringing its patents covering network hub and security technology used in hot spots and hotel wireless applications (e.g., “plug and play” system configurations, delivering content specific to a location, home page redirecting, user authorization, and customer billing). In the context of several cases, Mr. Tregillis opined on *Panduit* and *Bic Leisure* factors pertaining to the availability of lost profits, as well as quantifying lost profits and reasonable royalty damages, and was deposed in four of the cases. The district court used Mr. Tregillis’s calculations in its ruling on one of the matters; the other cases settled.
- ***Non-practicing entity v. online gaming and video company.*** The defendant was accused of using the plaintiff’s patented technology covering testing of cached content to ensure accurate page loading by the defendant’s website, the leading online site for the viewing of gamers streaming their game-playing and commentary. Mr. Tregillis estimated reasonable royalty damages, measured as a paid-up lump-sum royalty.
- ***Owner of technology used in flash memory/drives v. licensee.*** The plaintiff alleged that the defendant failed to pay royalties due as called for by a patent license agreement between the parties. Mr. Tregillis quantified the amount due under a variety of alternative scenarios representing contractual interpretations regarding what types of flash memory devices were covered by the license agreement. He testified at trial in Superior Court in Santa Clara County, California.
- ***Software company v. software company.*** The parties disputed whether the licensee to an agreement covering software had been compliant with the license’s terms, particularly as regards royalties owed. Mr. Tregillis served as a neutral accountant and calculated amounts owed and paid, to assist in resolution of a dispute between the parties.
- ***Creation of licensing control processes within embedded software company.*** Mr. Tregillis led a team in creating a royalty and licensing control process, including standardization of reporting and information flow, for a leading embedded software company whose technology is used in telephones, printers, routers, automotive applications, and the aerospace industry. The team also performed royalty examinations of licensees.
- ***College adv. educational publishing company.*** The parties entered into a contract pertaining to the use of the college’s nursing education and degree programs on the publishing company’s online educational portal. After the college found a replacement web hosting company and shifted to the new host, the parties asserted claims against each other for breach of contract, including amounts owed under the contract. Mr. Tregillis quantified damages, including the value of a license for the use made, and testified in an arbitration.
- ***Music labels v. internet service provider cable company.*** The plaintiff labels accused the defendant cable company of contributory infringement and related causes of action pertaining to the alleged wrongful peer-to-peer sharing of music files over the defendant’s network. Mr. Tregillis quantified copyright infringement damages and analyzed other issues pertaining to statutory damages, including the value of a license for the use made, the quantum of alleged wrongful downloads for which there was evidence, and the effect on the plaintiffs and the defendant of the downloads at issue. He testified in a deposition and at trial.



- ***Semiconductor design testing software company v. semiconductor design software company.*** The plaintiff, as a seller of software used in the design and testing of semiconductors, claimed that the defendant infringed the plaintiff's copyrighted software code, by using terms that were also used in the plaintiff's software, in an attempt to make the defendant's design software compatible with the plaintiff's (industry standard) testing software. Mr. Tregillis quantified damages and ill-gotten gains and testified in a deposition.
- ***Putative class of application developers v. media, software and electronic products company.*** The plaintiffs, as application developers, alleged that the defendant exerted monopoly power by only permitting the sale of the plaintiffs' applications on the defendant's online application store. Mr. Tregillis analyzed the profitability of the defendant's application store, to ascertain whether the profits were indicative of monopoly power. He testified in a deposition, with the matter settling soon thereafter.
- ***Flash memory and technology company v. accounting firm.*** The plaintiff was the licensee pursuant to a license agreement covering flash memory and related products. The defendant performed a royalty examination to determine whether the plaintiff had paid amounts owed to the licensor under the agreement. After the defendant issued a report that significantly overstated the amount that was ultimately determined by a court to be due, the plaintiff lost its business relationship with the licensor, which the plaintiff alleged was a result of a faulty royalty examination. Mr. Tregillis testified at trial regarding the royalty examination performed by the defendant, professional standards governing such work by a Certified Public Accountant, and damages resulting from the faulty royalty examination.
- ***Investors v. artificial intelligence software company.*** The plaintiffs were investors in a start-up artificial intelligence software company, and were involuntarily bought/squeezed out as part of a restructuring of the company. Thereafter, the company was worth much more than the price at which the investors were bought out. Mr. Tregillis quantified damages resulting from the alleged improper buyout of their shares.
- ***Software and smartphone company v. cyber security software company and employees.*** The plaintiff acquired a leading cyber security software company and its employees soon thereafter left the company, taking with them information alleged to be trade secret. Mr. Tregillis quantified damages resulting from the alleged trade secret theft, given the loss of subscribers to the new company created when the employees departed.
- ***Digital video phone seller adv. contract manufacturer.*** The digital video phone company contracted with the manufacturer to provide phones to specifications on a delivery schedule, but the phones did not work properly and were not delivered timely. As a result, there was a dispute between the parties over what amount was due to be paid by the phone seller to the manufacturer. Mr. Tregillis analyzed amounts due under alternative assumptions and contractual interpretations, tested accounting records, and testified in an arbitration as to his conclusions on amounts due per the contract.



Professional Activities, Groups & Affiliations

- California Society of Certified Public Accountants
 - Past Chair and current member, Economic Damages Section
 - Member, Steering Committee for Forensic Sections
 - Member, Government Relations Committee
 - Past member, CalCPA Council
 - Past member, Financial Literacy Committee
- American Institute of Certified Public Accountants
 - Past Chair, Economic Damages Task Force
 - Past member, Forensic & Litigation Services Committee
- USC Intellectual Property Institute
 - Member, Executive Committee
 - Chair, Damages and Monetary Remedies Subcommittee
- Licensing Executives Society/Certified Licensing Professionals
 - Past Co-Chair, Standards, Admissions, and Recertification Committee
 - Past Co-Chair, Exam Development and Maintenance Committee

Publications, Presentations & Speaking

- *Income Statement Analysis*. Practising Law Institute, *Basics of Accounting and Finance* (September 1998).
- *The Use of Outside Accountants*. Practising Law Institute course *Basics of Accounting and Finance* (September 1998) – instructor and chapter author, “Overview of Services Provided by CPAs.”
- *Evaluating IP Lost Profits: From Panduit to Grain Processing*. California Society of CPAs publication, *The Witness Chair* (Summer 2001).
- *The Valuation of Trademarks*. American Intellectual Property Lawyers Association Annual Meeting (October 2001).
- *The Valuation of Intellectual Property*. San Diego Institute of Intellectual Property Lawyers Association Meeting (April 2002).
- *Issues to Consider in Evaluating a Reasonable Royalty*. American Institute of CPAs publication, *CPA Expert* (Summer 2002).
- *IP Through the Life of Your Business*. The Phelps Group: IP Summit (July 2002).



- *The Use of Multiple Regression in Commercial Litigation*. California Society of CPAs, Economic Damages Section Meeting (October 2002).
- Review of *Valuation for Financial Reporting: Intangible Assets, Goodwill, and Impairment Analysis*, SFAS 141 & 142 (by Michael J. Mard, et al.). American Institute of CPAs publication, *CPA Expert* (Winter 2003).
- *The Use of Surveys and Statistics in Litigation*. California Society of CPAs, California Society of CPAs, Advanced Business Litigation Institute (May 2003).
- *Current Issues in IP Litigation Damages*. California Society of CPAs, California Society of CPAs, Advanced Business Litigation Institute (May 2003).
- *The Role of the Financial Expert in Trade Secret Litigation*. California Society of CPAs, Economic Damages Section Meeting (July 2003).
- *Notes and Numbers: Does the Data on Declining Music Sales “Sing” In an Age of Music Downloading?* Los Angeles County Bar Assoc., Music Section Meeting (December 2003).
- *Peer to Peer File Sharing Suits: What’s Next?* California Society of CPAs publication, *The Witness Chair* (Winter 2004).
- *AICPA Statement on Standards for Business Valuation*. California Society of CPAs, Economic Damages Section Meeting (February 2004).
- *Research on Current Issues in Economic Damages*. California Society of CPAs, Economic Damages Section Meeting (May 2004).
- *Assessing and Proving Damages from Infringement*, Program Moderator. University of Southern California Intellectual Property Institute (May 2004).
- *Daubert Case Law*. American Institute of CPAs, Conference on Fraud and Litigation Services (September 2004).
- *Cost Shifting and Electronic Discovery: How Experts Can Help Clients Minimize Costs*. California Society of CPAs publication, *The Witness Chair*, with Rachel Laybourn (Fall 2004).
- *Valuation of Intellectual Property*. California State Bar Intellectual Property Law Section, *Intellectual Property Institute* (November 2004).
- *From Qualifications to Unsupported Opinions: A Review of Motions to Exclude Financial Experts*. California Society of CPAs, Economic Damages Section Meeting (February 2005).
- *Challenges for the Intellectual Property Damages Expert: Apportionment of Value, Multiple Patent Litigation, Price Erosion, and the Entire Market Value Rule*. California Society of CPAs, Advanced Business Litigation Institute (May 2005).
- *You’ve Been Sued for Infringement – Now What?* University of Southern California Gould School of Law, *Intellectual Property Institute* (May 2005).



- *Fraud Identification, Protection and Management*. Financial Executives International, Seattle Section meeting (September 2005).
- *Spending Your IP Dollars Wisely in Foreign Markets*. AeA Oregon Section Meeting (December 2005).
- *Differences Between Lost Profits and Diminution in Business Value as a Measure of Damages*. American Institute of CPAs publication, BV-FLS Section Update, with Michael Thompson (January 2006).
- *Practice Aid on Damages in Intellectual Property Disputes* (contributor/editor). American Institute of CPAs publication (February 2006).
- *The Top 10 Things About IP Every Technology Manager Needs to Know*. Mentor Graphics User2User Conference (May 2006).
- *Financing Issues in Managing Intellectual Property Risk*. Risk & Insurance Management Society, Los Angeles Chapter Meeting (June 2006).
- *Awards for Future Damages in Patent Infringement Cases after eBay v. MercExchange*. American Bar Association, IPL Newsletter (Summer 2006, Volume 24, Issue 4).
- *The Forensic Accountant's Role in Claims of Alter-Ego, Successor Liability, and Fraudulent Transfers*. California Society of CPAs, Economic Damages Section Meeting (October 2006).
- *The Financial Expert Post-eBay: The Four-Factor Test and Future Royalties*. Law Seminars International, *Calculating and Proving Patent Damages* (February 2007).
- *Econometric Analysis and Multiple Regression*. Chapter in *Litigation Services Handbook: The Role of the Financial Expert, (Fourth Edition)*, with Dr. Mohan Rao, edited by Peter Frank, Michael Wagner and Roman Weil (February 2007); also in the supplement to the third edition.
- *Patent Rights in the Post-eBay Era: What You Need to Survive*. University of Southern California Gould School of Law, *Intellectual Property Institute* (March 2007).
- *Current Issues in Patent Damages*. IQPC, *3rd Patent Strategies* (March 2007).
- *Conducting Internal Corporate Investigations*. Association of Corporate Counsel of America, Southern California quarterly meeting (April 2007).
- *Managing Digital Intellectual Property Risk*. Automotive News Webinar (April 2007).
- *Protecting Your Intellectual Property: Essential Strategies to Building a Successful IP Protection Program*. Microsoft CSO Summit (April 2007).
- *Top 10 Reasons Financial Experts Get Excluded and What to Do About It*. American Institute of Certified Public Accountants National Conference on Fraud and Litigation Services (September 2007).
- *Forensic Accounting Investigations and Valuation Analysis in an XBRL World*. 16th XBRL International Conference (December 2007).
- *The CPA's Handbook on Fraud and Commercial Crime Prevention*. American Institute of Certified Public Accountants publication (lead author – 2008 update) (May 2008).



- *Forensic Investigation of Financial Statement Fraud: Case Studies*. Florida Institute of Certified Public Accountants, *Accounting and Business Expo* (May 2008).
- *Discovery and Production Issues*. American Institute of Certified Public Accountants, *National Conference on Fraud and Litigation Services* (September 2008).
- *Quanta, Exhaustion and Patent Damages*. IP360 (October 2008).
- *Discount Rates and the Time Value of Money in Litigation*. California Society of CPAs, Economic Damages Section Meeting (May 2009).
- *Understanding, Developing & Managing Forensic Engagements*. American Institute of Certified Public Accountants Webinar, "Creating a Niche Forensic Practice Series" (February 2010).
- *Economic Damages: An Overview*. American Institute of Certified Public Accountants Webinar, "Creating a Niche Forensic Practice Series" (May 2010).
- *Reasonable Royalties and Apportionment of Value: Part 2 (Royalty Stacking)*. California Society of Certified Public Accountants and Los Angeles Intellectual Property Lawyers Association, *IP Damages Institute* (November 2010).
- *Hot Issues in Reasonable Royalty Patent Damages* (topics led: *The Use of Surveys and Demand Curves*, and *The Use of Settlement Agreements*). University of Southern California Gould School of Law, *Intellectual Property Institute* (March 2011).
- *Differences Between Lost Profits and Diminution in Business Value as a Measure of Damages*. American Institute of Certified Public Accountants, *FVS Consulting Digest* (Issue 1, January 2012).
- *Discount Rates, Risk, and Uncertainty in Economic Damages Calculations*. American Institute of Certified Public Accountants Practice Aid (April 2012).
- *Discount Rates, Risk, and Uncertainty in Economic Damages Calculations*. American Institute of Certified Public Accountants Webinar (July 2012).
- *Discount Rates, Risk, and Uncertainty in Economic Damages Calculations; Attaining Reasonable Certainty in Economic Damages Calculations*. California Society of Certified Public Accountants Forensic Services Section Meeting (October 2012).
- *Financial Forensic Accounting Education Series: Applicable Professional Standards*. (Course Author) American Institute of Certified Public Accountants (May 2013).
- *Interpreting and Reconciling Recent Case Decisions: Raising the Bar on Lost Profits, Business Valuation and Intellectual Property Damages*. American Institute of Certified Public Accountants Forensic and Valuation Services Conference (November 2013).
- *Reasonable Certainty Round 2: An Inside Look at the Findings of the Damages Task Force - Reasonable Certainty for New or Unestablished Businesses*. American Institute of Certified Public Accountants Forensic and Valuation Services Conference (November 2013).
- *Reasonable Certainty in Economic Damages Calculations*. California Society of Certified Public Accountants Forensic Services Section Meeting (February 2015).
- *Patent Damages Roundtable*. University of Southern California Gould School of Law, *Intellectual Property Institute* (March 2015).



- *Reasonable Certainty in Economic Damages Calculations*. American Institute of Certified Public Accountants Practice Aid (August 2015).
- *IP Remedies Roundtable and Workshop*. University of Southern California Gould School of Law, Intellectual Property Institute (March 2017).
- *Reasonable Certainty and the New AICPA Practice Aid*. Kentucky Society of Certified Public Accountants, Forensic Accounting and Litigation Conference (August 2017).
- *Prejudgment Interest*. Chapter in *Lost Profits Damages: Principles, Methods, and Applications*, with Greg Pinsonneault, edited by Everett Harry and Jeffrey Kinrich (First Edition: October 2017; Second Edition: December 2021).
- *Linking Causation to Damages*. American Institute of Certified Public Accountants, Forensic and Valuation Services Conference (November 2017).
- *Calculating Lost Profits*. American Institute of Certified Public Accountants Practice Aid (March 2019).
- *Economic Damages Update: Reasonable Certainty, Lost Profits and Intellectual Property*. American Institute of Certified Public Accountants Webinar (May 2019).
- *Unauthorized Use of Trademarks and Copyrights in Social Media and User-Generated Content: Where are the Boundaries and Who's Responsible?* University of Southern California Gould School of Law, Intellectual Property Institute (September 2020).
- *Revenue Estimation Case Study: Regression*, Association of International Certified Public Accountants, Forensic & Valuation Services Conference (November 2020).
- *Revenue Estimation Case Study: Benchmarking and Yardstick Method*, Association of International Certified Public Accountants, Forensic & Valuation Services Conference (November 2020).
- *The Alter-Ego Investigation*. California Society of Certified Public Accountants, 4N6 Conference on Fraud and Forensics (May 2021). Also served as Chair of conference planning committee.
- *Prejudgment Interest*. Association of International Certified Public Accountants, Forensic & Valuation Services Conference (November 2021).
- *Ask the Experts: Complex Issues in Accounting Investigations*. California Society of Certified Public Accountants, Fraud and Forensic Accounting Conference (May 2022). Also served as Chair of conference planning committee.
- *Small Company Fraud and Breaches of Fiduciary Duties*. California Society of Certified Public Accountants, Fraud and Forensic Accounting Conference (March 2023). Also served as Chair of conference planning committee.
- Author of quarterly "AICPA Update" (2006-2009), and "Economic Damages Section Update" (2008-2010). California Society of CPAs publication, *The Witness Chair*.
- Research assistant in the publication of textbooks in Microeconomics, Macroeconomics and Econometrics.
- Instructor, the Conviser Duffy (Becker) CPA Review Course.

	2004	2005	2006	2007	2008	2009	2010	TOTAL
January	\$ 134,335.00	\$ 246,280.25	\$ 242,868.74	\$ 319,510.50	\$ 1,154,302.29	\$ 174,197.86	\$ 567,248.29	\$ 2,838,742.93
February	\$ 48,122.90	\$ 180,265.00	\$ 302,091.75	\$ 327,516.75	\$ 637,046.50	\$ 631,667.57	\$ 605,551.82	\$ 2,732,262.29
March	\$ 79,292.10	\$ 166,682.00	\$ 228,548.75	\$ 153,379.50	\$ 400,603.00	\$ 72,321.28	\$ 125,512.12	\$ 1,226,138.75
April	\$ 164,475.00	\$ 49,613.25	\$ 66,856.24	\$ 88,514.50	\$ 330,263.50	\$ 49,187.39	\$ 74,354.58	\$ 823,284.46
May	\$ 15,521.00	\$ 128,982.00	\$ 92,112.75	\$ 2,257,290.00	\$ 75,989.00	\$ 305,734.47	\$ 263,377.12	\$ 3,139,006.34
June	\$ 5,826.00	\$ 25,774.58	\$ 68,670.15	\$ 1,055,334.00	\$ 113,388.00	\$ 37,861.31	\$ 55,188.11	\$ 1,362,042.15
July	\$ 5,634.00	\$ 107,143.08	\$ 80,902.00	\$ 1,163,200.00	\$ 44,239.01	\$ 54,239.83	\$ 23,248.72	\$ 1,478,606.64
August	\$ 4,331.00	\$ 56,533.58	\$ 70,999.66	\$ 1,076,342.75	\$ 105,546.62	\$ 63,565.02	\$ 361,512.38	\$ 1,738,831.01
September	\$ 48,547.00	\$ 60,869.08	\$ 75,047.75	\$ 171,241.00	\$ 162,058.57	\$ 47,136.56	\$ 82,080.81	\$ 646,980.77
October	\$ 74,882.00	\$ 76,267.50	\$ 82,443.00	\$ 95,540.75	\$ 290,875.61	\$ 318,355.15	\$ 82,148.08	\$ 1,020,512.09
November	\$ 102,836.50	\$ 158,420.24	\$ 124,766.50	\$ 95,540.75	\$ 128,559.92	\$ 91,004.82	\$ 512,158.25	\$ 1,213,266.98
December	\$ 115,049.75	\$ 192,066.50	\$ 217,995.75	\$ 95,540.75	\$ 184,435.58	\$ 164,127.52	\$ 592,830.97	\$ 1,562,046.82
TOTAL \$ Rec	\$ 798,852.25	\$ 1,448,897.06	\$ 1,653,103.04	\$ 6,707,869.75	\$ 3,627,307.60	\$ 2,009,396.76	\$ 3,345,211.25	\$ 19,590,639.75
Expenses	\$ 30.00	\$ 289,794.87	\$ 1,023,254.22	\$ 1,370,060.61	\$ 576,826.64	\$ 1,329,236.75	\$ 928,181.46	\$ 5,517,384.55
Net Income	\$ 798,822.25	\$ 1,159,102.19	\$ 629,848.82	\$ 5,337,809.14	\$ 3,050,480.96	\$ 680,162.03	\$ 2,417,029.79	\$ 14,073,255.18
	2011	2012	2013	2014	2015	2016	2017	TOTAL
January	\$ 183,872.78	\$ 433,248.51	\$ 485,658.41	\$ 312,879.29	\$ 249,708.18	\$ 1,107,999.67	\$ 582,366.37	\$ 6,194,476.14
February	\$ 342,712.46	\$ 816,926.34	\$ 49.79	\$ 250,862.46	\$ 342,491.34	\$ 215,717.89	\$ 705,022.61	\$ 5,406,046.18
March	\$ 931,439.86	\$ 112,207.51	\$ 1,097,280.61	\$ 658,826.27	\$ 1,234,668.76	\$ 400,972.35	\$ 315,061.17	\$ 5,976,595.28
April	\$ 104,310.18	\$ 78,867.36	\$ 113,156.65	\$ 504,975.70	\$ 331,900.95	\$ 122,313.08	\$ 93,906.25	\$ 2,172,714.63
May	\$ 448,446.22	\$ 113,789.03	\$ 229,765.40	\$ 452,482.17	\$ 98,552.28	\$ 574,406.52	\$ 1,262,348.37	\$ 6,318,826.33
June	\$ 46,033.99	\$ 320,655.70	\$ 473,089.68	\$ 68,490.88	\$ 1,262,709.01	\$ 325,601.32	\$ 72,145.84	\$ 3,930,768.57
July	\$ 41,656.40	\$ 50,439.83	\$ 122,645.00	\$ 53,428.82	\$ 55,765.63	\$ 203,589.32	\$ 130,289.55	\$ 2,136,421.19
August	\$ 424,084.84	\$ 286,955.10	\$ 385,380.61	\$ 79,556.62	\$ 80,832.75	\$ 288,029.22	\$ 344,415.88	\$ 2,050,535.67
September	\$ 78,008.84	\$ 64,361.69	\$ 258,851.83	\$ 44,903.55	\$ 727,690.65	\$ 98,110.48	\$ 131,627.86	\$ 5,611,717.09
October	\$ 228,048.17	\$ 105,972.31	\$ 318,538.90	\$ 1,236,876.68	\$ 550,704.83	\$ 1,019,570.65	\$ 1,131,493.46	\$ 10,946,521.53
November	\$ 6,506,954.88	\$ 535,522.19	\$ 409,695.20	\$ 561,769.70	\$ 270,889.02	\$ 602,557.51	\$ 845,866.05	\$ 10,946,521.53
December	\$ 626,933.43	\$ 403,091.81	\$ 1,096,622.79	\$ 981,281.77	\$ 1,263,817.68	\$ 623,157.88	\$ 480,368.31	\$ 7,037,320.49
TOTAL \$ REC	\$ 9,962,502.05	\$ 3,322,037.38	\$ 4,990,734.87	\$ 5,206,333.91	\$ 6,469,761.08	\$ 5,582,025.89	\$ 6,094,911.72	\$ 61,218,946.63
Expenses	\$ 2,733,499.29	\$ 640,803.66	\$ 2,266,401.29	\$ 874,928.04	\$ 1,287,121.24	\$ 926,157.41	\$ 1,032,955.08	\$ 15,279,250.56
Net Income	\$ 7,229,002.76	\$ 2,681,233.72	\$ 2,724,333.58	\$ 4,331,405.87	\$ 5,182,639.84	\$ 4,655,868.48	\$ 5,061,956.64	\$ 45,939,696.07
	2018	2019	2020	2021	2022	2023	2024	TOTAL
January	\$ 1,068,919.54	\$ 1,406,613.14	\$ 622,471.23	\$ 113,270.84	\$ 84,208.22	\$ 2,096,926.94	\$ -	\$ 11,586,886.05
February	\$ 735,206.34	\$ 892,747.74	\$ 505,796.07	\$ 1,015,269.96	\$ 1,835,477.38	\$ 1,147,680.90	\$ -	\$ 11,538,223.57
March	\$ 880,798.67	\$ 613,777.28	\$ 59,213.15	\$ 138,317.74	\$ 1,328,303.14	\$ 23,794.19	\$ -	\$ 9,020,799.45
April	\$ 529,030.95	\$ 31,473.28	\$ 27,682.01	\$ 43,191.65	\$ 1,793,026.18	\$ 13,131.50	\$ -	\$ 4,610,250.20
May	\$ 97,588.13	\$ 820,079.18	\$ 181,460.13	\$ 389,465.27	\$ 306,125.53	\$ -	\$ -	\$ 8,113,544.57
June	\$ 405,883.07	\$ 2,486.35	\$ 5,657.92	\$ 104,465.15	\$ 5,412,159.72	\$ -	\$ -	\$ 9,861,420.78
July	\$ 408,705.17	\$ 72,625.82	\$ 24,793.78	\$ 56,700.13	\$ 8,783.67	\$ -	\$ -	\$ 2,708,029.74
August	\$ 166,873.58	\$ 306,465.02	\$ 176,847.32	\$ 346,771.54	\$ 945,839.80	\$ -	\$ -	\$ 5,570,883.29
September	\$ 207,817.64	\$ 26,867.30	\$ 44,739.29	\$ 15,257.52	\$ 17,546.86	\$ -	\$ -	\$ 2,362,764.28
October	\$ 94,179.56	\$ 62,371.32	\$ 46,252.68	\$ 167,025.78	\$ 59,274.72	\$ -	\$ -	\$ 6,040,821.15
November	\$ 749,486.50	\$ 374,021.25	\$ 890,931.97	\$ 547,559.08	\$ 463,830.60	\$ -	\$ -	\$ 13,972,350.93
December	\$ 1,322,808.64	\$ 115,314.22	\$ 72,839.53	\$ 96,397.83	\$ 5.07	\$ -	\$ -	\$ 8,644,685.78
TOTAL \$ REC	\$ 6,667,297.79	\$ 4,724,841.88	\$ 2,658,685.08	\$ 3,033,692.49	\$ 12,254,560.89	\$ 3,281,533.53	\$ -	\$ 93,839,578.29
Expenses	\$ 501,778.39	\$ 1,283,179.96	\$ 1,423,080.38	\$ 679,373.83	\$ 1,430,634.52	\$ 41,511.50	\$ -	\$ 20,638,809.14
Net Income	\$ 6,165,519.40	\$ 3,441,661.92	\$ 1,235,604.70	\$ 2,354,318.66	\$ 8,705,545.58	\$ 3,240,022.03	\$ -	\$ 71,082,961.03