

# Wayne B. Norris, Principal Scientist, Norris Associates Technologies, LLC



***Because Accuracy Matters™***

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## SUMMARY

I am currently a member of the Los Angeles County Superior Court Expert Witness Panel [PACE ID 340153833] and the Federal Court System Expert Witness Panel. I have served as an Expert Witness in more than 200 cases since 1986 in the areas of criminal defense, police digital evidence practices, civil matters, accidents, and intellectual property.

My areas of expertise derive from education, training, and professional experience. My degree is in physics from the University of California, Santa Barbara, with additional university training in CPA level accounting. I have co-authored two scientific papers, in diatomic molecular spectroscopy and in astrophysics, and I hold 6 patents in nuclear physics, one in nonlethal pistol ammunition, and 6 provisional patents in financial technology. I have spent my career of 57 years as a scientist, software engineer, and business owner executive and owner / founder.

I was formerly the Government Systems Manager of an Artificial Intelligence company under contract with a US Government agency doing foundational, cutting-edge AI work.

My areas of expertise in court cases include:

- Cell Phones
- Photogrammetry
- GPS
- Patents
- Trade Secrets
- Trademarks
- Accounting Fraud
- Employment Law
- Software Copyrights
- Audio
- Video
- Surveillance Cameras
- Presentation Graphics
- Aviation
- Applied Physics

I am currently a member of the 6-person technical team investigating allegations of sophisticated FBI evidence tampering in the case of *People v Keith Raniere and Nexium*, featuring Alan Dershowitz and a team of former Attorneys General, currently under review by FBI Director Kash Patel.

I will provide details and news citations upon request.

CELL PHONES: I am a published author of a scientific paper on microwave radiation. I served as the Manager of a telephone engineering subcontractor serving Harris Digital Telephone Company of Novator, CA for two years. I spent several years as a research scientist in microwave antennas and scattering physics. I have analyzed more than 100

cell phone extractions, using the popular software tools CELLEBRITE, MAGNET AX-IOM, and XRY.

GPS: I spent several years working in microcircuitry for aerospace applications, including GPS technology.

AUDIO: As a physicist, I spent many years analyzing audio transmissions for civilian and military operations, including “shot-spotting” and acoustic detection systems.

SURVEILLANCE CAMERAS / PREMISES ANALYSIS: I have analyzed more than 100 surveillance camera records, including compression algorithms, artifacts, and image recognition, using multiple software packages. These cases involve premises analysis, elevator accidents, construction analysis, crime scene / shooting analysis, bullet / smoke / dust / spall trajectories, and body worn video analysis.

PRESENTATION GRAPHICS: I have delivered more than 100 invited talks on technology to organizations including US Senatorial staff, the Defense Threat Reduction Agency, the FBI, and other classified audiences, and took a firm public before the Securities and Exchange Commission.

APPLIED PHYSICS: I have worked professionally in aircraft and missile technology, mechanics of solids, liquids, gases, and aerosols, nuclear environments, explosives technologies and effects, and acoustic and mechanical environments.

### **QUALIFICATIONS Per FRCP 26(a)(2)(B)(iv thru v)**

I have fifty-seven years of professional experience in management, business, finance, accounting, engineering, software development, and scientific research.

1. I hold a Bachelor of Arts degree in Physics from the University of California, Santa Barbara, and have taken graduate courses in advanced physics and CPA accounting.
2. I formerly served as the Vice President of an international software development firm for 5½ years, as the Vice President of Engineering for an aircraft flight simulator firm, as the President and Chief Financial Officer of an international software development firm with 130 employees and 3 offices on 2 continents that I took public before the US Securities and Exchange Commission, for 2 years, as the Interim President and Chief Financial Officer of an Internet domain name registrar for 6 months, as the Chief Scientist of a military research and development laboratory for 5½ years, and as the CEO of an expert witness company during the first half of 2017.
3. I have been awarded 6 patents in detection of conventional and nuclear explosives using neutron and gamma ray sensing, 1 patent in smart small caliber ammunition

design, and have 6 provisional patents in securities options trading technology and am the author of one provisional patent in mobile device geolocation technology.

4. Currently I am the Principal Scientist of Norris Associates Technologies, LLC, where I serve as a technology consultant and as an expert witness in fields in which I am qualified to serve.
5. I have served as an expert witness in technology matters, including the valuation of technology, in more than 200 cases before federal, state, and local courts.
6. I served as the President and Chief Financial Officer of a publicly traded software firm with 130 employees and 3 offices on 2 continents.
7. I began costing, valuing, and managing software projects in 1986, and in the subsequent years, have performed technical and financial management of more than 100 software development projects and programs for civilian, government, and military customers.
8. I have been writing software for 66 years, with some breaks.
  - 8.1. I wrote my first computer program in April of 1959, just one month after my 12<sup>th</sup> birthday, on a Librascope LGP-30 computer at Cerritos Junior College in California, courtesy of my friend's older brother who was a student there. The computer had no RAM and no disk, only a magnetic drum. I wrote a numerical solution for the equation of motion of a yo-yo.
  - 8.2. I began writing software professionally in 1969 while working as a physicist at Rockwell Science Center in Thousand Oaks, CA, in support of an analysis of moon rocks returned by Apollos 11 and 12 and of microwave analysis of earth's ocean temperatures and the atmospheric composition of Jupiter and Saturn. I wrote software in FORTRAN and assembly language on the CDC 6600 and RECOMP III computers.
  - 8.3. Over the years, I wrote software on approximately 35 different operating systems and hardware platforms in numerous languages, many now legacy, including FORTRAN, ALGOL, COBOL, PL/1, APL, Pascal, LISP, PLM, c, c++, Visual Basic, Access, SQL, JavaScript, HTML / CSS, Java, Macromind Lingo, and assembly languages for the CDC 6600 / 6400 CPU and PPU units, CDC RECOMP III, AN/UYK-6, IBM 7044, IBM 7094, IBM 360, SDS 910/920/930 series, the SIGMA series, the Burroughs B-3500, the VAX 11/70 series under VMS, the PDP-11 series under RSX-11m, the Intel 8080, 8088, and 8086 chipsets, the Motorola 6502 chipset, Xerox printer chipsets, and early versions of the Intel BIOS. In addition to machine-specific operating systems, I've worked under Linux, SCO Unix, most versions of Windows, and earlier "numbered" Macintosh operating systems.

8.4. I have written approximately 150,000 lines of code personally, on media including 8-bit ASCII punched paper tape, 7-bit Baudot partially punched paper tape, plugboards, IBM cards, ½" magnetic reels, multiple formats of floppy disks, modern hard drives, PROM chips, and optical media. I have written software in the areas of accounting, nuclear weapons simulations, stress analysis, bookkeeping, finance, video games, animations, 3D modeling, accounting, device drivers, robotic applications, vibration engineering, computerized test vector generation, oil spill simulation, compilers, parsers, inertial navigation systems, armored vehicle simulations, air quality simulations, Monte Carlo codes, electromagnetic scattering, finite element codes, cryptographic codes, and intelligence community applications.

8.5. I began managing software projects in 1986, and in the subsequent years, have managed more than 100 software development projects and programs for civilian, government, and military customers. I hold the designations of Microsoft Certified Professional [MCP], Project Management Professional [PMP], and Certified Scrum Master [CSM].

9. I have held the office of CEO, President, Vice President, Chief Financial Officer, Chief Scientist, and Board Member for multiple firms.

### **Career Highlights**

- Expert Witness in more than 200 cases in the areas of digital forensics, software code review for compliance with best practices, GPS, software copyright infringement and valuation, technology and technology business valuation, aircraft crash investigation, and related cases.
- Lead software development expert witness for the Internal Revenue Service in the \$1.7 billion *Microsoft et al v Commissioner of Internal Revenue*.
- Trademark infringement case, US Trademark Court, representing ByteDance, the parent company of TikTok.
- Manager of more than 100 projects and programs since 1978, with budgets to \$7.5 million and headcounts to 38. PMP and CSM certified. Projects included software development, cybersecurity, manufacturing, research and development, environmental planning, and civil aviation. Environments included commercial, military, aerospace, and national security communities.
- Santa Barbara Chapter President, Project Management Institute.
- Project Manager, US Navy, Port Hueneme, Cybersecurity, DEVOPS, and Support.

- Contract instructor, Project management, US Navy, Port Hueneme
- CEO, Precision Simulations, Incorporated [Grass Valley, CA] – Expert witness firm specializing in video and audio evidence analysis and forensic animation.
- Independent consultant:
  - 3d Flash LiDAR / super resolution in mining and aerial surveys
  - Secure military CANBUS encryption and hardening
  - Mobile device geolocation technology; Co-Inventor of a Provisional Patent
  - Sole Inventor of a Patented Sublethal handgun ammunition projectile
  - Permitting consultant for food grade algae farming
  - Permitting consultant for solar energy rooftop systems
  - Development of short-term securities options trading instrument. Sole Inventor of 6 FINTECH Provisional Patents
- Chief Financial Officer of an Internet Domain Name Registrar firm
- Chief Scientist / Co-Founder, SEDS, LLC [Redwood City, CA / Troy, MI / Santa Barbara, CA / Washington, DC / Oak Ridge, TN], a neutron physics counterterrorism research laboratory focusing on remote detection of improvised conventional and nuclear explosive devices and medical applications of thermal neutron technologies. Principal inventor of 5 Granted Patents and contributing inventor of a sixth. Chief engineer for millimeter microwave weapons detection systems installation at Cheyenne Mountain Complex.
- President and Chief Financial Officer, Offshore Creations, Inc. [Colorado Springs, CO / Santa Barbara, CA / Kiev, Ukraine / Simferopol, Crimea] – 160-person International software development firm. I took the company public before the SEC.
- Research and Development Manager, Biopac Systems, Inc. [Goleta, CA] Manufacturers of biomedical equipment
- Product Manager, 3DStockCharts.com, Inc. [Santa Barbara, CA] – a real-time stock data reporting and software development firm



**Wayne B. Norris, Principal Scientist, Norris Associates Technologies, LLC**  
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- Vice President of Engineering, Emulation Systems, Inc. [Santa Maria, CA] – makers of FAA approved simulators for light aircraft, helicopters, and the F-18 Hornet.
- Director of Government Services, ExperTelligence, Inc. [Goleta, CA] – an Artificial Intelligence software firm supplying the US intelligence community,
- Chief Scientist, Morton Associates [Santa Barbara, CA] – An environment firm that created federally mandated Oil Spill Contingency and Emergency Plans [OSCEPs] and personnel training curricula for offshore and onshore oil drilling platforms, pipelines, production facilities, and storage facilities. Developer of air pollution management software for Unocal.
- Contract software developer, Anacapa Associates [Santa Barbara, CA] – Developer of a Human Terrain Modeling system used for tracking domestic terrorist groups and organized crime groups.
- Physicist, Member of Technical Staff, General Research Corporation [Santa Barbara, CA / Washington, DC] – Researcher and software developer in electromagnetic scattering, nuclear weapons effects, computerized polygraphy, military operations, and other classified topics. Project Manager for robotic software development.
- Contract Software Developer, multiple firms including Control Data Corporation, Raytheon Electromagnetic Systems, Edwards AFB, McDonnell Douglas, Vandenberg AFB, and GM Delco Electronics. Subjects included the AN/SLQ-32 shipboard fire control system, missile test autodestruct systems, AGM-86 / AGM-109 cruise missile test flyoffs, M1-Abams tank simulations.
- President and Chief Pilot, Norris Airways [Santa Barbara, CA] – A charter airline under FAR Part 135, fixed base operator flight school under FAR Part 61, and Cessna dealership. 1,000 hours of flight instruction given. Personally graduated 35 pilots from Private Pilot to Airline Transport. Personally hold FAA Airline Transport Pilot [ATP], Senior Parachute Rigger, and Advanced / Instrument Ground Instructor certificates; formerly Certificated Flight Instructor, Airplane Single and Multi-Engine, Instruments [CFII/ASMEI].
- President and Founder, Gasohol, Inc., the first retail and wholesale automotive alcohol fuel firm west of the Mississippi River in modern times, with retail sales and bulk sales to the US Navy.
- Staff Associate Physicist, Rockwell Science Center [Thousand Oaks, CA] – Researcher / software developer for studies of moon rocks from Apollos 11 and 12

using Mössbauer Spectroscopy. Researcher in planetary atmospheres and liquid water analysis of terrestrial clouds.

- Laboratory Technician, Rockwell Space Center [Downey, CA] – Worked building the Apollo Command Module
- Laboratory Technician, Advanced Kinetics Corporation [Seal Beach, CA] –Laboratory simulation the earth's solar winds and the Van Allen Radiation Belts soon after they were discovered.
- Student software developer [La Mirada, CA] – Wrote simulation software for rotational dynamics on a Librascope LGP-30 in April 1959.
- Have written approximately 150,000 lines of software in approximately 38 computer languages.

## **APPENDIX A – WAYNE B. NORRIS CURRICULUM VITAE**

Wayne B. Norris has acted as an expert witness in more than 200 cases in federal, state, and local venues over the last several decades, including:

- Criminal defense, including police handling of digital evidence.
- Cell phone and computer forensics, GPS, photogrammetry, audio and video forensics, and creation of re-enactment videos
- Software Copyright infringement, “AFC”: Abstraction / Filtration / Comparison [code analysis and damages / appraisal computations]
- Computer and device forensics in civil and criminal cases including homicides, serial home invasion robberies, aggravated assaults, and cyberstalking
- Computer Security and Forensics / Industry Best Practices, Defects / Failure Analysis
- Software Contract Performance, Paternity and Valuation
- Software Outsourcing, with emphasis on Russia and Ukraine
- Engineering Best Practices
- Management Best Practices
- Appraisals of technology items and intellectual property
- Computation of damages in theft of trade secrets and trademark infringement
- Forensic photogrammetry
- Dark Web criminal activities
- Software Taxation Issues
- Software Industry Appropriate Compensation
- Patents, Patent validity, Patent Infringement
- Copyright issues
- Trade Secrets
- General Engineering and Physics
- General aviation aircraft operations and skydiving operations
- Fiduciary duties of corporate officers
- Hazardous materials, oil spills, and industrial safety, including radiological safety
- Aviation safety, best practices, and pilot error

Mr. Norris personally holds 6 granted patents in nuclear instrumentation, 1 granted patent in less-than-lethal handgun ammunition, 6 pending patents in online securities trading, 1 filed patent in cell phone geolocation, and has authored a 14th patent in real estate escrow processes.

He has been the CEO of an expert witness firm, the Vice President of a Russian-American software company and the President and Chief Financial Officer of a Ukrainian-American software company he took public on US markets.

He has testified on approximately 80 occasions, spanning both court testimony and depositions, and has authored more than 200 expert reports.

Mr. Norris specializes in explaining extremely complex concepts to general audiences in accessible and understandable ways. He has 55 years of professional service and 65 years writing and managing the development of computer software, beginning in 1959.

#### **List of Cases and Testimonies, 2013 – 2026**

- People of the State of California v Whitfield, Los Angeles County Superior Court – For Defense Counsel – Photogrammetry and Applied Physics
- Barbara Dominguez-v-<unknown>, Santa Barbara County Superior Court – For Defense Counsel – Photogrammetry
- People of the State of California v Ruiz, Los Angeles County Superior Court – For Defense Counsel – Photogrammetry and Surveillance camera analytics
- People of the State of California v Stone, Los Angeles County Superior Court – For Defense Counsel – Audio / video analytics
- People of the State of California v Cotton, Los Angeles County Superior Court – For Public Defender – Hard drive forensics
- People of the State of California v Campbell, Los Angeles County Superior Court – For Defense Counsel – Cell phone analytics including Voronoi diagrams
- People of the State of California v Castillo, Los Angeles County Superior Court – For Defense Counsel – Audio / video / cell phone / GPS analytics
- People of the State of California v Chavez, Anthony, Los Angeles County Superior Court – For Defense Counsel – Audio / video / cell phone / GPS analytics
- People of the State of California v Cline, Matthew, Los Angeles County Superior Court – For Defense Counsel – Audio / video / cell phone / GPS analytics
- People of the State of California v Cordell, Taylor Los Angeles County Superior Court – For Defense Counsel – Audio / video / cell phone / GPS analytics
- People of the State of California v Dagan, Joseph, Los Angeles County Superior Court – For Defense Counsel – Audio / video / cell phone / GPS analytics
- People of the State of California v Fisher, Al Gene, Los Angeles County Superior Court – For Defense Counsel – Audio / video / cell phone / GPS analytics
- People of the State of California v Franco, Anthony, Los Angeles County Superior Court – For Defense Counsel – Audio / video / cell phone / GPS analytics
- People of the State of California v Fuller, John, Butte County Superior Court – For Defense Counsel – Audio / video / cell phone / GPS analytics

- People of the State of California v Garcia, Justin, San Bernardino County Superior Court – For Defense Counsel – Audio / video / cell phone / GPS analytics
- People of the State of California v Granados, Richard Los Angeles County Superior Court – For Defense Counsel – Audio / video / cell phone / GPS analytics
- People of the State of California v Hall, Brandon, San Bernardino County Superior Court – For Defense Counsel – Audio / video / cell phone / GPS analytics
- People of the State of California v Hemenway, Robert, San Bernardino County Superior Court – For Defense Counsel – Audio / video / cell phone / GPS analytics
- People of the State of California v Hussein, Iftekhhar, Los Angeles County Superior Court – For Defense Counsel – Audio / video / cell phone / GPS analytics
- People of the State of California v Johnson, Melvin, Los Angeles County Superior Court – For Defense Counsel – Audio / video / cell phone / GPS analytics
- People of the State of California v Louden, Tyrell, Los Angeles County Superior Court – For Defense Counsel – Audio / video / cell phone / GPS analytics
- People of the State of California v Williams, Marvin, Los Angeles County Superior Court – For Defense Counsel – Audio / video / cell phone / GPS analytics
- Maravilla, Sharee v Otis Elevator & Kone Maintenance, Merced County Superior Court – For Defense Counsel – Audio / video / cell phone / GPS analytics
- People of the State of California v McCaw, Michael, Los Angeles County Superior Court – For Defense Counsel – Audio / video / cell phone / GPS analytics
- People of the State of California v Mendoza, Josevian, Los Angeles County Superior Court – For Defense Counsel – Audio / video / cell phone / GPS analytics
- Moler, Carl v City of Tustin, Orange County Superior Court – For Plaintiff’s Counsel – Audio / video analytics
- Mulligan v California Highway Patrol, Los Angeles County Superior Court – For Plaintiff’s Counsel – Cryptocurrency analytics
- People of the State of California v Padilla, Julio, Los Angeles County Superior Court – For Defense Counsel – Audio / video / cell phone / GPS analytics
- People of the State of California v Pergament, Asher, Los Angeles County Superior Court – For Plaintiff’s Counsel – Audio / video / cell phone / GPS analytics
- Marzette, Donald v Quick Quack Car Wash, Alameda County Superior Court – For Defense Counsel – Audio / video analytics
- People of the State of California v Rayment, Shane, Los Angeles County Superior Court – For Defense Counsel – Audio / video analytics

- People of the State of California v Roskowick, Los Angeles County Superior Court – For Defense Counsel – Audio / video / cell phone / GPS analytics
- People of the State of California v \_\_\_\_, \_\_\_\_, Los Angeles County Superior Court – For Defense Counsel – Audio / video / cell phone / GPS analytics
- People of the State of California v \_\_\_\_, \_\_\_\_, Los Angeles County Superior Court – For Defense Counsel – Audio / video / cell phone / GPS analytics
- People of the State of California v Thompson, Los Angeles County Superior Court – For Defense Counsel – Cell phone analytics
- People of the State of California v Baumgartner, Riverside County Superior Court – For Defense Counsel – Cell phone analytics
- People of the State of California v Aihara, Los Angeles County Superior Court – For Defense Counsel – Cell phone analytics
- <Redacted> v <Redacted>, Los Angeles County Superior Court – For Plaintiff's Counsel – Financial audit – terrorism link
- People of the State of California v Dilks, San Bernardino County Superior Court – For Defense Counsel – GPS and Cell Phone analytics
- People of the State of California v Holt, San Bernardino County Superior Court – For Defense Counsel – GPS analytics
- People of the State of California v Castro, Los Angeles County Superior Court – For Defense Counsel – Cell phone analytics
- People of the State of California v Makonen, Los Angeles County Superior Court – For Defense Counsel – Cell phone analytics
- People of the State of California v Sarinana, Los Angeles County Superior Court – For Defense Counsel – Cell phone analytics, Photogrammetry
- People of the State of California v Malloy, Los Angeles County Superior Court – For Defense Counsel – Cell phone and Video analytics
- People of the State of California v Abreu, Kern County, California – For Defense Counsel – Analysis of Cell Phone, Home Monitoring, and Workplace timecard data
- \*Airtech et al v Yim et al, US Federal District Court for New Jersey – For Defense Counsel – Financial Analysis of military aircraft parts value
- People of the State of California v Barajas, Los Angeles County Superior Court – For Defense Counsel – Cell phone analytics
- People of the State of California v Wuthrich, Santa Barbara County Superior Court – For Defense Counsel – Cell phone, GPS, and device analytics

- People of the State of California v Camou, Los Angeles County Superior Court – For Defense Counsel – Device Analytics
- \*Pilton v Novell, Los Angeles County Civil Court – For Plaintiff’s Counsel – Email analysis
- \*People v Daniel Garcia, et al, Riverside County, California – For Defendant’s Counsel – Corruption of computer data
- \*Blogspiration v Mobile Computing, LLC, Los Angeles County Civil Court – For Plaintiff’s Counsel – Software development contract performance
- Garcia v Hancock, Los Angeles County Superior Court – For Plaintiff’s Counsel – Photogrammetry reconstruction of an elevator slip-and-fall accident
- Entertainment Printing Enterprises, Ltd. [“GoFoBo”] v CreativeMob, LLC, et al – Los Angeles County Superior Court – For Plaintiff’s Counsel – Alleged theft of intellectual property
- People of the United States vs Raniere et al, United States Federal District Court, 2<sup>nd</sup> District of the State of New York – For Defendant’s Counsel – Acted as corroborating expert witness against two FBI agents accused of fabricating digital data. I am the only non-law-enforcement expert out of a panel of 6 and a legal team including Alan Dershowitz.
- \*Muzeit v Bytedance, US Trademark Court – For Defendant’s Counsel – Technology analysis of Trademark claims
- Christian Cardoso v ASAP Drain Guys and Plumbing, San Diego, California County Superior Court – For Plaintiff’s Counsel – Validation of video surveillance data
- \*People of the State of California vs Nikolov, Los Angeles County Superior Court – For Defendant’s Counsel – Valuation of stolen credit card numbers obtained by hacking
- People of the State of California v Williams, Los Angeles County Superior Court – For Defense Counsel – Fourth Amendment evidence challenge for Android Cell Phone lock screen
- Marriage of Tate, Santa Barbara County Court – Digital Evidence of Cyberstalking
- People of the State of California vs Valadez – Los Angeles County Superior Court – For Defense Counsel – Cell Phone event log analysis for alleged CP and CSAM [with Robert Ayers, colleague]

- People of the United States vs Hansen – US Federal District Court, for Los Angeles – For Defense Counsel – Electronic communications analysis in an alleged student loan fraud case
- Mussalem v Nissan – Los Angeles County Superior Court –Plaintiff’s Counsel – Analysis of automotive and air bag system data for an alleged premature seat belt and air bag deployment system. [with Robert Ayers, colleague]
- \*Live Face on Web vs Integrity – US Federal District Court, Denver, Colorado -- For Defendant’s Counsel – Valuation of allegedly inappropriate copyrighted software code
- \*Doe vs Corona Norco Unified School District, Riverside County, CA Superior Court – For Plaintiff’s Counsel – Adequacy of school district software security
- People of the United States v Hackett – US Federal District Court, Los Angeles, CA – For Defense Counsel – Chat and social media analysis in an alleged securities fraud case
- Live Face on Web vs Moreno – US District Court, Western District of Texas, San Antonio Division – For Defendant’s Counsel – Valuation of allegedly inappropriate copyrighted software code
- \*Felix v Ramirez – Superior Court of Los Angeles County, CA -- for Defendant’s counsel – defendant prevailed on all counts, won counter-suit – Valuation of Internet URLs
- \*Paccione vs Albert – Los Angeles County Superior Court – for Defendant’s Counsel – Analysis of text message records in a criminal contempt of court hearing as part of a divorce proceeding
- \*People of the State of California vs Keith Johnson -- Shasta County, CA Superior Court – for Defendant’s Counsel – Analysis of potentially available forensic records from multiple sensors in a child molestation case
- \*Marriage of Jensen – Los Angeles County Superior Court – Analysis of email records for evidence of tampering.
- \*Naroditskiy vs Eon Reality – Orange County Superior Court – for Defendant’s Counsel – Valuation of Russian-American software representation contracts
- \*People of the State of California vs Creech – Los Angeles County Superior Court – For Defendant’s Counsel – Analysis of prosecution’s use of animations in a high profile death penalty case.

- People of the State of California vs Thomas – Los Angeles County Superior Court – for Defendant’s Counsel – analysis of phone and device records in a serial home invasion robbery case
- Hausz Contractors vs Perodigm, et al, – Madison, Wisconsin Superior Court – for Plaintiff’s Counsel – analysis of website and device records in an alleged cyber fraud case
- People of the State of California vs Stewart – Los Angeles County Superior Court – for Defendant’s Counsel – analysis of HIKVISION video records from a partially destroyed drive in an alleged murder case
- Martinez et al v Amazon et al – Las Vegas, Nevada Superior Court – For Defense Counsel – Photogrammetric and GPS data analytics in an alleged non-injury hit-and-run traffic incident.
- People of the State of California vs Malloy – Los Angeles County Superior Court – for Defendant’s Counsel – analysis of phone and device records in a serial rape case
- Gaskins v OHL, Inc. – Orange County, California Superior Court – for Plaintiff’s Counsel – Photogrammetry in a catastrophic industrial accident on a US Army Corps of Engineers flood control project

## **MOST RECENT CASES INCLUDE:**

- Analysis of surveillance videos and still images
- Analysis of allegedly tampered digital evidence in a high profile murder case, involving legacy mobile devices and storage appliances.
- Appraisals, valuations, and damages in very difficult cases that no other experts will touch, based on multiple valuation approaches and consolidation of results, including stolen credit card numbers offered for sale on the Dark Web
- “Should-Cost” valuations of software in piracy cases and engineering contract performance
- Unjust enrichment in trade secret theft cases
- Lifetime earnings of a condensed matter physicist working in quantum computing and AI who suffered traumatic brain injuries
- Forensic analysis of JavaScript code in a copyright infringement / copyright validation case, including Abstraction / Filtration / Comparison [AFC] tests
- Forensic analysis of metadata in a case of alleged international fraud
- Forensic analysis of email trails in a case of alleged forgery
- Forensic analysis of text message records in a criminal case
- Investigation of damage mechanisms to a computer system
- Forensic analysis of alleged Dark Web disclosures of Personally Identifiable Information [PII]
- Forensic analysis of alleged online slander
- Forensic analysis of cell phone photos in an alleged child pornography case
- Procedure analysis of sheriff’s investigators in an alleged case of lewd photography of under aged minors
- Appropriate compensation in the software industry
- Valuation of software in a copyright infringement case
- Appropriate commission structure in a US-Russian software business
- Physics analysis in patent infringement cases

## **PROFESSIONAL SUMMARY:**

Chief Executive Officer of Precision Simulations Inc., the leading provider of forensic / scientific documentation, analysis, and visualization services, including 3D laser scanning, animation, forensic video, photogrammetry, and testifying expert witness services for legal proceedings.

President and Chief Financial Officer of Offshore Creations, Inc. [OFSC.PK], a 130-person publicly traded international software company.

Chief Scientist of SEDS, LLC, a government contracting R&D firm working in counterterrorism; holder of 6 patents in nuclear technology, gamma ray sensing, and conventional and nuclear explosives detection using thermal neutron beams and

pixilated gamma ray spectrometers. Specialist in millimeter microwave based weapons detection systems, profiling, ballistics, Munroe Effect penetrators, and explosives effects. Installed first millimeter microwave detection system at Cheyenne Mountain Complex. Analysis of Human Terrain Modeling with focus on bomb making.

Principal, Norris Associates, Environmental Consultants, an environmental and engineering consulting firm. Projects included residential developments, the MX missile rail garrison plan, a proposed nuclear plant in Omaha, a sewage system in Los Angeles, oil drilling offshore Orange County, CA, and fuzzy set simulation of governmental decision making.

Consulting Physicist and Computer Systems Analyst, Jet Propulsion Laboratories, Vandenberg AFB, Edwards AFB, Kirtland AFB, GM Delco Division, McDonnell Douglas, Raytheon, Hughes Aircraft, AlliedSignal Corporation, ExperTelligence Corporation: Technology development for aerospace, domestic police, organized crime gang and terrorism human terrain modeling, national defense, intelligence community, and commercial projects.

Chief Scientist, Morton Associates, Santa Barbara, CA, corporate author of federally mandated Oil Spill Contingency and Emergency Plans [OSCEPs] for the Chevron platforms in the Santa Barbara Channel, the KLMR pipeline from Bakersfield to Los Medanos, the Estero Bay Marine Terminal, Estero Spur, Gosford Production Facility, Chevron Cavern Point Unit, and Phillips Marine Terminal. Lead author of the Commercial Fisheries Handbook for Proposed Exploratory Drilling Operations, Cavern Point Unit. Software developer, fugitive emissions reporting system, Unocal refineries. Financial analyst and appraiser, Unocal Huntington Beach onshore oil drilling, pipeline, and production facilities.

Founder, CEO, and Chief Pilot Norris Airways, Santa Barbara, CA Municipal Airport, an aircraft fixed base operation ("FBO"), FAR 135 Air Taxi, and Cessna dealership with 14 employees, including 9 pilots, 3 departments, and 11 aircraft.

Co-Founder and CEO, Gasohol, Incorporated, Santa Barbara, CA, the first modern wholesale/retail gasohol company west of the Mississippi River. Wholesale customers included the U.S. Navy.

Physicist, General Research Corporation, investigator in electromagnetic scattering, neutron transport, nuclear weapons effects, counterterrorism, computer assisted polygraphy / electrophysiology and facial gesture recognition, and the Strategic Defense Initiative.

Physicist, Rockwell Science Center, investigator on lunar samples from Apollos 11 and 12, planetary atmospheres, cosmic background temperature, and terrestrial atmospheric liquid water content for environmental analysis and environmental impact statements and reports.

Financial Analyst / Business Plan Author, Consultant – Holder of 6 Provisional Patents in financial options trading.

Patent advisor, Consultant

Advisor to Multiple Initial Coin Offerings [ICOs]

Expert witness for issues in Technology, Intellectual Property, Valuation, and Conduct of Corporate Officers in Federal and State courts.

## **EDUCATION AND CERTIFICATIONS:**

- University of California, Santa Barbara: B.A. Physics
- University of California, Santa Barbara: Post-graduate work in Advanced Mathematics and Physics, Human Factors, and Ergonomics, and CPA accounting
- Santa Barbara City College, Professional Oil Field Deep Sea Diving, Accounting
- Microsoft Certified Professional + Internet [MCP+I] designation
- Project Management Professional [PMP] designation
- Certified SCRUM Master [CSM] [Agile project management] designation
- University of Texas, Austin: Professional Certificate, Oil Field HAZOPS and Risk Management
- Security Management Certificate, Defense Industrial Security Clearance Office. Honolulu, HI
- Classified Warheads and Ballistics Seminars, US Naval Postgraduate School, Monterey, CA
- Former California State General Building Contractor, B-1 licensee
- FAA Airline Transport Pilot, Senior Parachute Rigger, Former CFII/ASMEI, Ground Instructor

## **AFFILIATIONS:**

- Institute of Electrical and Electronics Engineers [IEEE] – Life Member
- Association of Old Crows [AOC] [Electronic and cyber warfare professional organization]
- Project Management Institute [PMI] – Santa Barbara Chapter Director
- SCRUM Alliance [Agile project management]
- Santa Barbara Science and Engineering Counsel
- Association of the United States Army [AUSA] Life Member
- American Association for the Advancement of Science [AAAS]

## **SELECTED COMMUNITY EXPERIENCE:**

- President, Board Chair, Mothers Against Drunk Driving Santa Barbara: Created a pioneer vehicle donation program and created 34 radio and TV commercials and bilingual sober driving literature.
- Santa Barbara County Deputy Sheriff for Search & Rescue
- Member, Santa Barbara County Grand Jury, Sheriff's/Seniors Committees

**PUBLICATIONS:**

*"Time-Resolved Emission Spectroscopy in Acetylene/Oxygen Explosions"*, Combustion and Flame Journal, February 1970 (with R.J. Oldman and H.P. Broida)

*"The Brightness Temperature of the Terrestrial Sky at 2.69 GHz"*, Journal of the Atmospheric Sciences, 29:1210 (with W.W. Ho, G.M. Hidy, M.J. Van Melle, W. Hall, H. Wang)

*Chevron Fisheries Handbook for the Cavern Point Unit* (with Prof. Milton, Love, Ph.D.)

**PATENTS:**

Mr. Norris currently holds 7 granted patents and 7 provisional patents, and has acted as an expert in numerous patent cases, including against Microsoft, Logitech, Pelican Research, and Analog Devices, Inc.

US 7,573,044 B2 *Remote Detection Of Explosive Substances* GRANTED 8/11/09 - Priority 7/18/06

US 8,080,808 *Remote Detection Of Explosive Substances* (CIP 7,573,044) GRANTED 12/20/2011

US 8,288,734 *Remote Detection Of Explosive Substances* CIP GRANTED 10/16/2012

US 8,357,910 *Background Signal Reduction In Neutron Fluorescence Applications Using Agile Neutron Beam Flux* GRANTED 1/22/2013

US 8,410,451 *Neutron Fluorescence with Synchronized Gamma Detector* GRANTED 4/2/2013

US 8,785,864 *Low-Cost, Organic-Scintillator Compton Gamma Ray Telescope* GRANTED 6/22/2014 [with K.N. Ricci, B. Paden]

US 11,226,185 *Multipurpose Projectile Having Preformed Pieces and a Variable Impact Deployment System* GRANTED 1/18/2022

US 62305645 *Method and System for Trading Low Priced Short Term Securities Option Contracts That Exhibit Specified Behaviors*, PENDING 3/9/2016

US 62307986 *Securities Trading Exchanges To Support the Sale and Exercise of Low Priced Short Term Securities Option Contracts That Exhibit Specified Behaviors*, PENDING 3/14/2016

US 62307999 *Method and Process To Support the Sale and Exercise of a Series of Low Price Securities Option Contracts To Achieve Specified Premium Price Values*, PENDING 3/14/2016

US 62378833 *Method and Process To Support the Interactive Sharing of Securities Trading Activities*, PENDING 8/24/2016

US 62378846 *Method and Process To Support the Positioning of Advertisements in a Securities Trading Platform*, PENDING 8/24/2016

US 62378858 *Method and Process for Combining Trades of Securities into a Lottery-Like Environment*, PENDING 8/24/2016

US 62/353,466 *US Method for Verifying Player Location in Online Lottery System*, PENDING 9/22/2016.

### **EXPERT WITNESS EXPERIENCE DETAILED DISCUSSION:**

Mr. Norris has testified on more than 100 occasions, spanning both court testimony and depositions, and has authored more than 200 expert reports.

Mr. Norris specializes in explaining extremely complex concepts to general audiences in accessible and understandable ways. He has 55 years of professional service and 65 years writing and managing the development of computer software, beginning in 1959.

Mr. Norris was the US Government's expert witness for software development issues in the multi-year case of Microsoft Corporation versus Commissioner of Internal Revenue [US Tax Court Docket Number 16878-96], the largest tax case ever litigated by any jurisdiction in history. He authored four expert witness reports that were admitted into the record, and testified for approximately 7 hours, including *voire dire*, direct, cross, redirect, and recross.

Mr. Norris was the principal architect of the Government's technical approach toward interpretation of IRC 927(c) in the case of software. The Government won the case at trial, and his arguments were incorporated into the Court's opinion. He advised IRS attorneys on strategies for the examination of Microsoft expert witnesses.

Mr. Norris specializes in explaining very complex issues to the Court and Jury in accessible language.

He has developed a knowledge area with the trademarked name the Internet of Evidence™, [<http://InternetOfEvidence.com/>] a term he uses to refer to the vast and ever growing array of sensors and data recorders that can be used by the legal community to determine time lines, identities and intentions of actors, accuracy of alibis, external and environmental conditions, and who knew what and when they knew it. He delivered a Webinar for CLE credit on this topic on April 24 of 2014 under the auspices of Technical Advisory Services for Attorneys [TASA]. The webinar was attended by 132 attorneys nationwide.

The following year, 2015, Mr. Norris presented a similar webinar for CLE credits titled *The Internet of Things Thieves - What Data Security Lawsuits In the Very Near Future Will Look Like!*

Mr. Norris has worked as an expert witness in several modes, including depositions, testimony in court, and preparation of expert witness reports and strategy documents.

## EXPERT WITNESS CASES

Due to confidentiality rules and stipulations, many cases are not able to be shared. Sharable information is shown below.

SOME CASES ARE LISTED UNDER MULTIPLE HEADINGS FOR EASE OF ACCESS. INCLUDING IN THE PRIOR LIST:

### Animations and Simulations

- People of the State of California vs Creech, Los Angeles County Superior Court - Analysis of prosecution's use of animations

### Appraisals and Valuations

- People of the State of California vs Nikolov, Los Angeles County Superior Court
- Live Face on Web vs Integrity -- US District Court, Denver, Colorado -- For Defendant's Counsel
- Live Face On Web vs Moreno et al - for Defendant's Counsel
- Live Face on Web vs Integrity Systems, for Defendant's Counsel
- Live Face on Web vs Puerto del Sol Condominiums, for Defendant's Counsel
- Naroditskiy vs Eon Reality - for Defendant's Counsel
- People of the State of California vs Georgi Nikolov, for Defendant's Counsel
- Mitchell and Manhattan Software vs Jean Kasem, Little Miss Liberty, et al, - Superior Court of Los Angeles County, CA – case settled - for Plaintiff's Counsel
- Felix v Ramirez – Superior Court of Los Angeles County, CA – defendant prevailed on all counts, won counter-suit - for Defendant's Counsel
- Clark-Martin vs Yahoo US District Court – negotiated settlement - for Defendant's Counsel
- Microsoft vs Richter, OptInRealBig, et al – US District Court, Seattle, damages – defendant plead guilty to reduced charges - for Defendant's Counsel
- Young vs GFOS, Inc., San Diego Superior Court, case settled - for Plaintiff's Counsel
- Feltman v Otalvaro, et al - for Plaintiff 's counsel – case settled – US Bankruptcy Court, Southern Florida
- Multiple others, cases sealed

### Forensic Analyses of Electronic Media

- People vs Whitfield
- Dominguez vs <Redacted>
- People v Ruiz
- People v Stone
- People v Makonen
- People v Castro

- People v Sarinana
- People v Malloy
- People v Abreu
- People v Barajas
- People v Wuthrich
- People v Camou
- People vs Garcia, Riverside County, California, for *in pro per* homicide defendant
- People vs McConnell, San Bernardino, California, Defense [GPS], serial home burglaries
- People vs Frazier, Los Angeles County Court, for Defense Counsel
- Live Face On Web vs Five Boro Mold et al - Superior Court of the State of New York - Case settled - for Plaintiff's Counsel
- Microsoft Corporation vs Commissioner of Internal Revenue - Victory by Defendant [IRS], US Tax Court, Seattle, WA and Washington, DC. [Court testimony; 7 hours; direct, cross, redirect, recross] - for Defendant's Counsel
- Weininger vs Weininger – online slander and reputation management - case settled
- Multiple cases in progress involving metadata, email authentication, spoofing, and damage to electronic media
- Riffle vs Hyde & Hyde, Northern California – case settled - for Plaintiff's Counsel
- People of the State of Wyoming vs Robinson – POS system tampering - guilty verdict - for Defendant's Counsel
- People of the State of California vs Threlkeld – Riverside County Superior Court forensic recovery from cell phones and hard drives – Defendant convicted and sentenced
- People of the State of California vs Keith Johnson – analysis of potentially available forensic records from multiple sensors in a child molestation case – Not Guilty Verdict – Shasta County, CA Superior Court [Court testimony; 2 hours; direct, cross, redirect] - for Defendant's Counsel
- Paccione vs Albert – Analysis of text message records in a criminal contempt of court hearing as part of a divorce proceeding – charges dropped – Los Angeles County Superior Court [Court testimony; 1 hour; direct, cross, redirect] - for Defendant's Counsel
- Offshore Supply Systems, LLC vs CS Industries, Inc. - Superior Court of Orange County, CA - case settled - for Defendant's Counsel
- Marriage of Jensen – Los Angeles County Superior Court - analysis of email records for evidence of tampering.

## **Software Intellectual Property**

- Microsoft Corporation vs Commissioner of Internal Revenue - Victory by Defendant [IRS], US Tax Court, Seattle, WA and Washington, DC. [Court testimony; 7 hours; direct, cross, redirect, recross] - for Defendant's Counsel

## **Patentability of Software**

- In re Mitchell, Los Angeles US District Court – advisory to Court

## **Technology Trademarks**

- Muze-It vs TikTok, US Trademark Court, for Defendant TikTok

## **Cyberstalking**

- Moshtael v Mobayan, Orange County, California Superior Court, for Plaintiff's Counsel

## **Technology Infringement**

- Dolby Digital v General Satellite Research & Development, Ltd., San Francisco Federal District Court, for Defendant's Counsel
- Interlam vs Modular Arts, US District Court, Western District, Washington State, Seattle, WA, case settled [Deposition] - for Plaintiff's Counsel
- Young vs GFOS, Inc., San Diego Superior Court, settled - Plaintiff's Counsel

## **Patent Infringement Cases**

- Jordan Spencer Jacobs v. Microsoft Corporation, Logitech, Inc., Pelican Accessories, and Analog Devices, Inc. - case settled, US District Court, Central Florida [Deposition] - for Plaintiff's Counsel
- Sequent Technologies vs Insight Video Net - US District Court, Los Angeles, CA - case settled - for Plaintiff's Counsel
- VOS Systems, Inc. vs Voice Signal Technology, Inc. – US District Court, San Diego, CA – case settled - for Plaintiff's Counsel
- Microsoft vs Comptek Plus, US District Court, Los Angeles, CA – case settled – for Defendant's Counsel
- Other cases settled under seal

## **Software and Hardware Quality and Performance Cases**

- Allen & Schack vs Worldwide Environmental Products - settled, Superior Court of Ventura County, CA [Deposition] - for Plaintiff's Counsel

### **Software Copyright Infringement Cases**

- Mitchell and Manhattan Software vs Jean Kasem, Little Miss Liberty, et al, – Superior Court of Los Angeles County, CA – case settled prior to trial - for Plaintiff's Counsel
- Other cases settled under seal, US District Court, Honolulu, Hawaii
- Live Face on Web, Inc. vs Moreno et al, for Defendant's Counsel

### **Software Piracy**

- People vs Joan Huang, US District Court, Los Angeles, CA – defendant plead guilty to a reduced charge - for Defendant's Counsel

### **Software System Operational Integrity**

- People vs Mraz, Superior Court of Sheridan, WY – defendant convicted - for Defendant's Counsel

### **Software Licensing**

- qad vs Ingersoll Rand – Los Angeles US District Court – case settled - for Plaintiff's Counsel

### **Misappropriation of Trade Secrets**

- Entertainment Printing Enterprises, Inc. vs CreativeMob, TicktBox, et al – Superior Court of Los Angeles County, CA – case settled prior to trial - for Plaintiff's Counsel
- Mitchell and Manhattan Software vs Jean Kasem, Little Miss Liberty, et al, – Superior Court of Los Angeles County, CA – case settled prior to trial - for Plaintiff's Counsel
- Lynch Communications, Inc. v Irish Communications, Inc, David O'Keefe, et al. – Superior Court of Riverside, CA - case dropped - for Plaintiff's Counsel

### **Software Industry Appropriate Compensation**

- Feltman vs Otalvaro, et al – case settled – US Bankruptcy Court, Southern Florida – for Plaintiff's Counsel
- Smith, Dodson, Steele, Port, et al vs Kaiser Permanente [class action], US District Court, Northern California, case settled - for Plaintiff's Counsel
- Tan vs CSAA [class action], US District Court, Northern California, case settled - for Plaintiff's Counsel
- Langille vs EMC [class action], US District Court, Northern California, case settled – for Plaintiff's Counsel
- Delmare vs Sungard [class action], US District Court, Northern California, case settled - for Plaintiff's Counsel

- Apple vs Walsh [class action], US District Court, Northern California, case settled - for Plaintiff's Counsel
- Williams et al vs Lockheed Martin, US District Court, Southern California, case settled [Deposition] - for Plaintiff's Counsel

### **Software Security Industry Best Practices**

- Doe vs Corona Norco Unified School District, Riverside County, CA Superior Court – For Plaintiff's Counsel

### **Fiduciary Duties of Corporate Officers**

- Lynch Communications, Inc. v Irish Communications, Inc, David O'Keefe, et al. – Superior Court of Riverside, CA - case dropped - for Plaintiff's Counsel
- Other cases settled under seal

### **Illegal Use of Business Name in HTML Metatags for SEO**

- Life Alert Emergency Response, Inc. vs ConsumerAffairs.com, Inc. – Los Angeles County Superior Court - case settled - for Plaintiff's Counsel

### **Software Contract Performance**

- Alliance Manufacturing Software, Inc. vs Typhoon Software, Inc. – Santa Barbara Superior Court – [Deposition] - Judgement for Plaintiff - for Defendant's Counsel
- Wilmar Group vs Mastech Systems Corp. – Court of Common Pleas – Allegheny County, PA – case settled - for Plaintiff's Counsel

### **Genealogy of Software Source Code to Determine Branching**

- Norton vs Norton, Los Angeles Family Court – case settled - for Defendant's Counsel

### **Professional Conduct Among Scientists – Defamation**

- Watts vs Synolakis – US District Court - Juneau, Alaska - case settled - for Defendant's Counsel

### **Evaluation of Private Pilot Dangerous Conduct**

- Lima vs Foster, Los Angeles Family Court – case settled

### **Airline Liability**

- Case sealed

### **Building Lighting Liability**

- Gordon vs Pacific Properties – Santa Barbara, CA – case settled - for Plaintiff's Counsel

### **Aerial Law Enforcement**

- People of the State of California vs Stevenson, Santa Barbara County Superior Court – reduced misdemeanor sentence [Court testimony; 1 hour; direct, cross] - for Defendant's Counsel

### **SUMMARY OF EXPERT WITNESS AREAS**

- Device forensics, including cell phones, computers, GPS, video, and audio, in criminal and civil cases
- Computer software development issues, practices, responsibilities, financing, responsibility, defects, failure analysis, and valuation
- Patent, Copyright, Trademark, and Trade Secret issues, including infringement and misappropriation, including audits of computer source code
- Outsourcing, including domestic and international
- General physics, dynamics, engineering, technology, and mechanics
- Software industry appropriate compensation
- Engineering and software industry standards and contract performance, including industry best practices Management practices in engineering, science, research & development, and technology
- General aviation aircraft operations [FAA rated Airline Transport Pilot, former Flight Instructor, Ground Instructor, and Parachute Rigger]
- Fiduciary duties of corporate officers
- Earning potential of scientists
- Hazardous materials, oil spills, radiological and industrial safety



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**Mobile Devices**



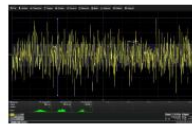
**GPS**



**Auto Accident Analysis  
 Forensic Video Creation**



**Surveillance Video**



**Audio Recordings**



**Forensic Accounting  
 Fraud Detection**

**Intellectual Property:  
 Patents / Copyrights  
 Trademarks**



**Valuations of Technology  
 And Intellectual Property**

