



Forensic Consulting, Technology & Animations

## **R. SCOTT KING, BSME, CFEI**

Principal Automotive/Mechanical Engineer

### **EDUCATION**

Drexel University, Philadelphia, PA: BS Mechanical Engineering, 1997

Automotive Training Center, Lionville, PA: General Automotive Technology, 1983

### **CONTINUING EDUCATION, LICENSES AND CERTIFICATES**

Specialist – CDR Technician and Data Analyst, November 2022

Fastening Technology & Bolted/Screwed Joint Design, Detroit MI, June 2022

Vehicle Systems Forensic Technician, August 202

Vehicle Systems Forensic Examiner, August 2021

Berla iVe Vehicle System (Infotainment & Telematic) Forensics, Annapolis, MD, August 2021

Certified Fire and Explosion Investigator, National Association of Fire Investigators, March 2020

Event Data Recorder Use in Traffic Crash Reconstruction – Update, Abington, PA, February 2019

Event Data Recorder Use in Traffic Crash Reconstruction – Update, Abington, PA, June 2014

Accessing and Interpreting Heavy Vehicle Event Data Recorders, SAE, May 2013

GPS – New Technology in Accident Reconstruction, NASP, September 2011

GPS Forensics Training, Blackthorn2 Certified, April 2011

Bosch CDR Technician and Data Analyst Certification Training Series: Certified Crash Data Retrieval Specialist – CDR Technician and Data Analyst, April 2009

SAE International Highway Vehicle Event Data Recorder Symposium: 2007 Update

Bendix Commercial Truck and Trailer Braking Systems

Crash Data Retrieval System Technician Certification by Vetronix and CSI

Certified Crash Data Retrieval System Analyst by Vetronix

Pennsylvania Licensed Safety Inspection Mechanic: Passenger Vehicles, Trucks over 17,000 Pounds and Trailers over 10,000 Pounds, Buses, and Motorcycles

### **PROFESSIONAL ORGANIZATIONS**

National Fire Protection Association

National Association of Fire Investigators

Society of Automotive Engineers

American Society of Mechanical Engineers

Member, Technology & Maintenance Council of the American Trucking Associations.

Member, SAE Vehicle Event Data Interface Technical Committee and Data Definitions Sub-Committee. Committee's Purpose to Define and Develop Technical Requirements and Industry Standards for On-Board Event Data Recorders Culminating in Issuance and Publication of SAE Recommended Practice Document J1698

## PROFESSIONAL EXPERIENCE

- April 1999 - DJS Associates, Inc., Abington, PA, Principal Automotive/Mechanical Engineer**  
Responsibilities Include: Vehicular Inspections including Cars, Trucks, Trailers and Motorcycles; Retrieval and Analysis of Electronic Data from Commercial and Passenger Vehicle Event Data Recorders, Global Positioning Devices and Telematic Systems; 3-Dimensional High-Definition Survey Vehicle Documentation; Engineering Analysis of Vehicle Components and Systems for Failure Cause, Origin and Resulting Effects.
- 1988 - 1996 Kenneth G. Eland, Transportation Management Services, West Chester, PA**  
Responsibilities Included: **Lead Investigator/Consultant**, Post Accident Investigation and Diagnosis of Vehicles for Cause-Related Defects or Malfunctions. Inspection and Photographic Documentation of all Automotive Parts of Vehicles; Post-Accident Preliminary Analysis.

## TECHNICAL EXPERIENCE

- 1997 – 1999 Boeing Helicopters, Ridley Park, PA: Lead Design Engineer, Mechanical Flight Control Systems**  
Responsibilities Included: Development of Mechanical and Electromechanical Designs Providing Operational and Performance Requirements of New-Design and Modification Programs; Developed Manufacturing and Design Improvements Utilizing CATIA-3D Solid Modeling and CAD/CAM Technology; Provided Engineering Support to Aircraft Manufacturing, Flight-Test and Service Communities; Identified and Remedied Manufacturing and Design Defects; Performed Testing and Failure Analysis of Mechanical Systems; Prioritized, Delegated and Managed Engineering Design Activities; Prepared and Presented Proposals to Senior Management and Multi-National Aircraft Communities.
- 1987 – 1997 James Chevrolet, West Chester, PA: Senior Automotive Technician**  
Responsibilities Included: Identifying Cause and Corrective Actions of Failed Electrical, Mechanical and Hydraulic Systems; Performed Maintenance and Repairs on General Motors Product Line; Specialized in Electrical Diagnostics and Repair; Performed Pennsylvania Safety and Emission Inspections.
- 1983 – 1987 Penske Chevrolet, King of Prussia, PA: Automotive Technician**  
Responsibilities Included: Performance of Diagnostic, Maintenance and Repair on Chevrolet Product Line; Performed Pennsylvania Safety and Emission Inspections.
- 1982 – 1983 Thompson's Automotive, West Chester, PA: Pennsylvania State Inspection Mechanic**
- 1981 – 1982 Goshenville ARCO, West Chester, PA: Pennsylvania State Inspection Mechanic**
- 1980 – 1981 Matthew's Ford, Paoli, PA: Pennsylvania State Inspection Mechanic/New-Vehicle Delivery Preparation**
- 1979 – 1980 Airport Amoco, West Chester, PA: Pennsylvania State Inspection Mechanic**

## AREAS OF EXPERTISE

- Forensic Examination of Commercial Trucks and Trailers; Passenger Cars and Trucks; Recreation Vehicles; Wheeled Construction Equipment; Airport Ground Support Equipment; and Motorcycles, ATVs, and Recreational Equipment.
- Vehicle Fire Origin and Cause Determination.
- Engineering Investigation of Suspected Vehicle Failures, Defects, and Malfunctions.
- Retrieval and Analysis of Crash and Event Data from Engine Control Modules; Antilock Brake Systems; Forward Looking Camera and Radar Devices; and Collision Mitigation Systems Within All Major Commercial Vehicle Brands.
- Retrieval and Analysis of Crash and Event Data from Airbag Control Modules Within All Major Passenger Vehicle Brands.
- Retrieval and Analysis of Data from GPS Devices Including Garmin, Magellan, Qualcomm, PeopleNet, and XetaNet.
- State and Federal Periodic Vehicle Safety Inspection Standards and Equipment Requirements.
- Motor Carrier Safety Assessment Program (MCSAP) Inspections.
- Commercial Truck Roadside Inspections and Commercial Vehicle Safety Alliance North American Out-of-Service Criteria.
- Automotive and Commercial Truck Technician Certification, Training, and Standards of Care.

**Numerous Continuing Education Courses in Field of Expertise Taken through GM Service Tech Group from 1983 – 1997. Subjects Include:**

### **Braking Systems**

Delphi VI ABS/Traction Control System  
Bosch ABS 2U and 2S Systems  
Four Wheel Anti-Lock Brakes  
Bosch 5 Series ABS/EBS  
Delco-Moraine ABS 6 – EBS  
Corvette Anti-Lock Brakes

### **Transmission and Transaxle**

4T60/4T60E 4-Speed Automatic Transaxle  
4L80E 4-Speed Automatic Transmission  
Vibration Correction  
4L60E 4-Speed Automatic Transmission  
4T60 (440-T4) Automatic Transaxle  
Spectrum 3-Speed Automatic Transaxle  
125-125C (3T40) Automatic Transaxle  
4L60 (700-R4) Automatic Transmission

### **Engine Mechanical, Performance and Driveability**

ZR1 LT5 Engine Mechanical  
3.4 Liter Twin Cam Mechanical  
Central Sequential Fuel Injection, Trucks  
Corvette LT5 Fuel and Emissions

Distributorless Ignition Systems  
Fuel Injection Drivability  
6.2L V-8 Diesel Engine Diagnostics  
Computer Command Control Carburetors  
Computer Command Control Fundamentals

### **Electronic Diagnostics**

Electronic Strategy-Based Diagnostics  
GM Air Bag Systems  
Tech II Familiarization  
On-Board Diagnostics II  
Specialized Electronics Training  
Tech I Familiarization  
Venture Content Theft Deterrent

### **PRESENTATIONS**

“Typical Issues in Commercial Trucking Investigations: Braking Violations, Event Data Recorders, and Wheel Separation Events,” American Trucking Association Webinar, Abington, PA, June 2021

“Motor Carrier Accidents/The “Big Rigs”: Investigating Tractor-Trailer Accidents,” Webinar, American International Group, Abington, PA, April 2021

“A Look Inside Product Defects Up Close,” Webinar, National Association of Subrogation Professionals, Philadelphia, PA, November 2020

“Motor Carrier Accidents/The “Big Rigs”: Investigating Tractor-Trailer Accidents,” Prominent Pennsylvania Law Firm, Feasterville, PA, October 2019

“EDRs, Telematics and Infotainment: What Your Vehicle is Telling You,” National Defense Industrial Association’s Regional Conference, Memphis, TN, September 2019

“The Investigation of a Vehicle Collision: An Interactive Seminar Where YOU Take Part in the Investigation,” Forensic Storage & Technology Center, Southampton, PA, May 2019

“Big Rigs,” EMC Insurance Companies. Valley Forge Service Center, Pottstown, PA, March 2019

“The Road to Autonomous Vehicles: The Hundred Year Journey,” NJICLE Webinar, Abington, PA, July 2017

“Inspecting and Preserving the Vehicle and the Inspection Data Post Accident,” Pennsylvania Law Firm, Carlisle, PA, July 2016

“Event Data to Autonomous Vehicle Technologies: Where we are, Where we’re Going” 2016 PA Insurance Fraud Seminar, Hershey, PA, April 2016

“Event Data to Autonomous Vehicle Technologies: Where we are, Where we’re Going,” NDIA/NDAA, Pittsburgh, PA, April 2016

“Event Data to Autonomous Vehicle Technologies: Where we are, Where we’re Going,” Pennsylvania Auto Crime Investigator’s Association, Philadelphia, PA, February 2016

"The Implications of the Latest Wave of Automotive Technologies," National Association of Subrogation Professionals, Tahoe, NV, November 2015

"Crash Data Retrieval Systems – 'Black Box'," Donegal Insurance, Marietta, PA, August 2015

"Motorcycle Accident Investigation," National Association Subrogation Professionals, Abington, PA, April 2015

"Motorcycle Accident Investigation," Progressive Insurance, Plymouth Meeting, PA, March 2015

"Update on Automotive and Truck Electronic Data – EDR and GPS Technology," Montgomery County Judges & Lawyers, Blue Bell, PA, January 2015

"Collision Reconstruction & Automotive Technology to Limit High Exposure," Wyoming Bar Association, Cheyenne, WY, July 2014

"Event Data Recorder Technology Update," Pennsylvania Fraud Conference, Hershey, PA, April 2014

"Event Data Recorder, GPS and Automotive Investigations," PACIA, Philadelphia, PA, February 2014

"Accident & Automotive Investigations," MMG Insurance, Presque Isle, ME, January 2014

"GPS and EDR Technology," PA Auto Crime Investigators, Philadelphia, PA, April 2013

"Updates on GPS and EDR Technology," 2013 Boardwalk Seminar, Atlantic City, NJ, April 2013 (CLE)

"Updates on GPS and EDR Technology," Pennsylvania Fraud Conference, Hersey, PA, April 2013

"Truck Brakes and the Motor Carrier Safety Assessment Program (MCASP) Report," National Commercial Trucking Subrogation Strategies ExecuSummit, Uncasville, CT, November 2012

"Updates on Eye in the Sky, Black Box, iPhone and GPS Technology," New Jersey Association for Justice, East Rutherford, NJ, November 2012 (CLE)

"GPS Forensics," Northeast International Association of Investigators, Lancaster, PA, May 2012

"Computer Technology Inside & Outside the Vehicle," NJ Association for Justice, Atlantic City, NJ, April 2012

"New Technology for Investigation & Data Collection," 7<sup>th</sup> Annual National Subrogation Strategies ExecuSummit, Uncasville, CT, February 2012

"GPS Forensics," Pennsylvania Assoc. Criminal Investigations, Philadelphia, PA, November 2011

"GPS Forensics," Donegal Insurance, Marietta, PA, October 2011

"Automotive Investigations & Technology," Lightstream Communications, Bryn Mawr, PA, March 2011

"Keeping Up with the Latest Technology in Accident and Automotive Investigation," Gloucester County Legal Education Association, Vineland, NJ, November 2010 (CLE Credits)

"Black Box and Other Critical Technology to Investigate Vehicular Crashes," Aletheia Institute Video/Audio Broadcast Seminar, May 2010

"Sudden Acceleration and Crash Data Retrieval," National Association Subrogation Professionals, Concordville, PA, May 2010

"High-Definition Survey (HDS), Crash Data Retrieval (Black Box) and New Technology for Collision/Automotive Investigation and Reconstruction," Progressive Insurance, Plymouth Meeting, PA, October 2008

"2008 Update on Event Data Recorder Technology for Cars and Trucks," National Association of Subrogation Professionals, Allentown, PA, September 2008

"2008 Update on Event Data Recorder Technology for Cars and Trucks," International Association of Special Investigations Units, Atlanta, GA, September 2008

"2008 Update on Event Data Recorder Technology for Cars and Trucks," South Jersey Claims Association, Mt. Laurel, NJ, April 2008

"Trucks, Trucks and Only Trucks: Anatomy of Tractor-Trailer Accidents," Virginia CLE, Fairfax, VA, April 2008 (CLE)

"Common Mechanical Defects that May Lead to Truck Accidents," Pennsylvania Law Firm's Annual Trucking Seminar, Harrisburg, PA, March 2008

"The Use of New Technology in Vehicular Reconstruction and Automotive Investigations," Association of Trial Lawyers-NJ, Atlantic City, NJ, April 2007

"Technological Advances in Accident Reconstruction, Automotive Investigations, High-Definition Surveying (HDS)," State Bar of Nevada, Las Vegas and Reno, February 2007 (CLE)

"Technological Advances in Accident Reconstruction, Automotive Investigations and High-Definition-Scanning," Gloucester County Bar Association, Sewell, NJ, December 2006 (CLE)

"Successful Subrogation Through Effective Use of New Technology," National Association of Subrogation Professionals, Orlando, FL, November 2006

"Event Data Recorder (Black Box) Analysis and New Data Collection Technology for Investigation of Vehicles and Trucks," State Farm Insurance, Plymouth Meeting, PA, April 2006

"Trucks, Trucks and Only Trucks: Investigating Tractor-Trailer Accidents," Gloucester County Bar Association, Sewell, NJ, March 2006 (CLE)

"Trucks, Trucks and Only Trucks: Investigating Tractor-Trailer Accidents to Limit High Exposure" and "Up Close and Personal: Hands-on Inspections of Tractor-Trailers," National Association of Subrogation Specialists, Austin, TX, November 2005

"Insights Into Accident Reconstruction and New Technology," DRI, Chicago, IL, November 2005

"Trucks, Trucks and Only Trucks," Zurich Insurance, Princeton, NJ, September 2005

"Latest Advances in Accident Reconstruction, Automotive Investigations, Demonstrative Evidence and Computer Animations," Nevada Bar Association, Las Vegas and Reno, NV, July 2005 (CLE)



"Successful In-House Investigation Techniques for Vehicular Collisions: Roadway, Driver and Vehicle Issues," State Bar of Arizona, Phoenix, AZ, April 2005 (CLE)

"Automotive Investigations: Tires, Fires, Wires, Event Data Recorders and More," Erie Insurance, Bethlehem, PA, April 2005

"Black Box: Understanding the Issues," Keystone Legal Assistant's Association, Harrisburg, PA, October 2004

"Vehicle Defects, Automotive Claims and Black Boxes for Cars: What You Need to Know!" National Association of Subrogation Specialists, Phoenix, AZ, September 2004

"Trucks, Trucks and Only Trucks: Mechanical Investigations of Tractor-Trailer Accidents," Prominent Pennsylvania Law Firm, Hershey, PA, July 2004

"Investigating Tractor-Trailer Accidents," New Jersey Institute for Continuing Legal Education, New Brunswick, NJ, June 2004 (CLE)

"Automotive Investigations: Fires, Tires, Wires and More," Erie Insurance, Fogelsville, PA, April 2004

"Technological Advances in Trucking Accident Investigation and Reconstruction," Defense Research Institute, St. Louis, MO, April 2004 (CLE)

## **PAPERS**

"Diesel Engines Can Yield Important Clues," In Brief, June 2012

"Event Data Recorders: Past, Present & Future," February 2012

"Beyond Black Boxes," Trial Magazine, February 2011

"Techno Talk... What Your Vehicle is Saying These Days!" PA Justice News, Volume 2, No. 4, September 2009

"Black Box Technology in Passenger Cars- 2007 Update," Nevada Lawyer, January 2007

"Truck Black Box Data: Capabilities and Limitations," In-Brief, ATLA-NJ, March 2003

"The Black Box: Technological Advances in Accident Investigation and Automotive Engineering," Product Liability Reporter, July 2001

"Where the Rubber Meets the Road," In-Brief, ATLA-NJ, September 2000

"Do You Know Where Your Tire Is...?" In-Brief, ATLA-NJ, June/July 2000

"The Black Box and its Role in Accident Investigation and Reconstruction: An Introduction," In-Brief, ATLA-NJ, September 1999