



# *Crash & Safety Consultants, LLC*

*"Where Integrity Matters"*

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## **KEVIN R THERIAULT**

Over 21 years experience in traffic crash investigation, reconstruction and analysis. Specialist in commercial vehicle crashes, Federal Motor Carrier Safety Regulations, DOT Safety Compliance and Audit reviews.

### **ACADEMIC BACKGROUND**

Franklin Pierce College, 1995-1997  
B.S. Management- Magna Cum Laude

Southern Maine Technical College, 1985-1987  
A.A.S. Law Enforcement

### **CERTIFICATIONS**

Certificate of Full Accreditation from the Accreditation Commission for Traffic Accident Reconstruction - ACTAR # 811

Certified Crash Data Retrieval (CDR) Technician

Certified Crash Data Retrieval (CDR) Data Analyst

Fellow of the American Board of Forensic Examiners  
Certified Forensic Consultant, CFC - ID# 14542

Certified Director of Safety, North American Transportation Management Institute -  
CDS # 1761

Valid Virginia Operator's License with Motorcycle Endorsement

### **SPECIALIZED TRAINING**

**Certification as a Police Officer** for the State of Maine, Maine Criminal Justice Academy, 11/88

**Certification as a Police Officer** for the State of New Hampshire, New Hampshire Police Standards and Training Council, 7/95

**Occupant Protection Usage & Enforcement Workshop; Instructor Preparation Program** taught by the U.S. Department of Transportation, Transportation Safety Institute, 3/90

**DWI-Drug Detection:** Horizontal Gaze-Nystagmus Method for DWI detection, and nationally recognized standard field sobriety testing, 7/90

**Coaching the Emergency Vehicle Operator - Police, Defensive Driving Course** taught by the National Safety Council, sponsored by the Maine Municipal Association, 12/91

**On-Scene Accident Investigation** taught at New Hampshire Police Standards and Training Council, 2/96

**Methods of Instruction,** Maine Criminal Justice Academy, State of Maine, 1/90

**Technical Crash Investigation** taught at New Hampshire Police Standards and Training Council, 2/97

**1996 Jay McDuffee DWI Motor Vehicle Homicide Seminar** sponsored by the New Hampshire Attorney General's Office at the University of New Hampshire, Manchester Campus, 11/96

**Motor Vehicle Crash Reconstruction** taught at the New Hampshire Police Standards and Training Council, 6/97.

**Advanced Traffic Accident Reconstruction** taught by Texas A&M University, Law Enforcement & Security Training Division in Anne Arundel County, Maryland, 1/98

**Heavy Vehicle Crash Reconstruction** taught by Northwestern University Traffic Institute at New Carlisle, Indiana, 5/98

**Caterpillar Electronic Engine Controls** - Factory training on use of Caterpillar's "Electronic Technician" computer program for data retrieval from Caterpillar diesel engine electronic control modules. Modes of training included speed and RPM calibration, all engine parameters, trip parameters, including the quick brake function, programmable features, security features, and remote diagnostic capabilities. Caterpillar Power Systems, Richmond, VA, 4/02

**Advanced Air Brake Systems** - Advanced concepts of commercial vehicle air brake systems including design, selection of components for maximum efficiency and safety, extensive simulation and analysis of component and system failures. Haldex Corp.- Midland Heavy Duty Brake Systems, Kansas City, MO, 9/98

**Friction / Foundation** - Identification of friction lining and automatic slack adjusters, overview of slack adjuster operation, problem shooting with foundation brakes, Haldex, Midland Services, Kansas City, MO, 11/99

**ABS/FMVSS-121 Regulations** - Review of ABS/FMVSS-121 regulations, advanced concepts of commercial vehicle ABS systems including design, selection of components for maximum efficiency and safety, built several configurations of FFABS, MOD 1 and MOD 2, and MODAL brake systems, trouble shoot each design. Haldex Corporation - Midland Heavy Duty Brake Systems, Kansas City, MO, 5/99

**Commercial Vehicle Safety Alliance - Inspection Familiarization Seminar**  
Concord, VA, 4/99

**WREX 2000** - Robust testing of Motorcycle/Barrier crash tests, testing of coefficient of friction of various manufacturer's tires, dynamic tests of a tractor truck and semi-trailer to determine the reason there is a difference in stopping capabilities between large truck tires and passenger car tires, obtuse angle collision, both vehicles in motion, with bullet striking behind target vehicle's center of mass, crash test of 40% offset frontal collisions, both vehicles in motion, and crash test of identical vehicles 40% off set frontal collision with one vehicle stationary and bullet vehicle at same closing speed, College Station, TX, 9/00

**EDC Accident Reconstruction** - Review of program history, scope and capabilities, including discussion of precursor programs such as Crash, and Crash III. Orientation to the windows based HVE-2D environment. Program training includes detailed study of the analytical procedures and logic contained with the program to perform the calculations of damage based Delta-V, separation velocities, common velocity check, trajectory simulation and linear momentum. Course included case studies, proper data analysis, management of diagnostic messages, and presentation of data. Engineering Dynamics Corp., Richmond, VA, 2/01

**HVE 3-D / Accident Reconstruction** - Program training includes the HVE 3-D components and File system, setting up and executing multiple events, a detailed study of simulation sequences, creating a 3-D environment with friction zones, overlays and material attributes. The course included case studies, proper data analysis, management of diagnostic messages and presentation of data. Engineering Dynamics Corp., Richmond, VA, 6/01

**Biomechanics of Impact Seminar** - Topics included the history of impact biomechanics, and crash related biomechanical parameters of the head, neck, chest, abdomen, and extremities to understand the limits of human tolerance. Discussion of current and future occupant restraints. Association for the Advancement of Automotive Medicine, Richmond, VA, 10/01

**Grade Crossing Collision Investigation** - Railroad crossing accident investigation, International Association of Chiefs of Police, National Sheriffs Association, and Operation Lifesaver, Inc., Ontario, CA, 4/02

**2002 NAPARS Joint Accident Reconstruction Conference** - Introduction to event data recorders and crush documentation and analysis, robust testing of passenger vehicle to passenger vehicle crash tests, and correlation of data collected from event data recorders in each vehicle. Correlate dynamic brake testing of a city bus to data collected from Caterpillar (CAT) engine control module (ECM), Ocean City, MD, 9/02

**Detroit Diesel ProDriver Reports and DDEC Data** - Factory training for certification on extracting and analyzing data from Detroit Diesel electronic engine control modules and ProDriver data recorders. Training included detailed data on functions, parameters, and capabilities both of current models and new MBE engines. Detroit Diesel Corporation Training Center, Detroit, MI, 11/02

**MGM Brakes Brake Tech Service Course** - Factory training and certification course for repair and maintenance of MGM air brake products for commercial vehicles and heavy equipment. MGM a division of Indian Head Industries, Inc., Charlotte, NC, 11/02

**Vetronix Crash Data Retrieval System Training** - Training covering system operational parameters, data formats, uses and limitations. The training resulted in certification of the operator by Vetronix, Fairfax, VA, 2/04

**Investigating Human Fatigue Factors in Transportation Accidents** - Provided knowledge and skills to examine the role of fatigue in an accident to determine contributor and/or causation factors. Topics included the physiological basis of human fatigue, circadian disruptions that can lead to fatigue, sleep disorders, operationally relevant questions used to determine the role of fatigue in accidents, and analyzing and interpreting data. National Transportation Board Safety Board Academy, Ashburn, VA, 9/04

**Motor Fleet Safety Principals and Practices, Training for the Safety Supervisor Course** work included safety as a management function, commercial vehicle driver selection and testing, designing and implementing training programs for safety, communications with employees to improve safety functions, supervision of drivers and employees from the safety perspective, accident prevention and investigation, regulatory compliance, hazardous material transportation and security-North American Transportation Management Institute (NATMI) 2004

**Managing Motor Fleet Safety Programs/Training for the Safety Director** Course work included the role of the Safety Director in determining needs and setting overall policy, implementation of safety policy and programs, using supervision and communication to reinforce management commitment to safety, monitoring safety programs to determine if objectives are being met, The quality management approach applied to safety, use of statistical control models to evaluate performance, analysis of accident trends and identification of root causes for the purpose of safety training and accident prevention, management of employee injury/illness programs in the transportation industry, North American Transportation Management Institute (NATMI) 2004

**2004 NAPARS Combined Annual Conference for Collision Reconstruction** - Updates of event data recorders, robust crash testing of passenger vehicle to passenger vehicle, robust testing of SUV roll-overs and vehicle ramp launching. Applying and correlating the data collected (physical evidence) from testing field to the application and validation of various reconstruction formulas within the industry. The application of Excel and spreadsheets in collision reconstruction and a review of Internet resources for collision reconstruction, Ocean City, MD, 10/04

**Cummins Insite Qualification Course** - Factory training and qualification on use of Cummins Insite computer program for data retrieval from Cummins diesel engine electronic control modules. Training included detailed data on functions, parameters and capabilities of Cummins ECMs. Training resulted in certification by Cummins. Cummins Atlantic Training Center, Charlotte, NC, 8/05

**Tractor Trailer Side Underride Analysis** - History and derivation of the underride speed equation, review of data points, review of previous crash tests, field tests consisting of live crashes, Midwest Institute for Transportation Safety, Indianapolis, IN, 8/05

**2007 NAPARS Annual Joint Accident Reconstruction Conference** - Update for event data recorders, robust testing of passenger vehicle to passenger vehicle eccentric crash tests, and correlation of data collected from event data recorders in each vehicle. Overview of the phasing and the operation of traffic signals throughout the United States, Binghamton, NY, 10/07

**Fleet Risk Management Practices** - An overview of current practices in Fleet Risk Management - Transportation Risk Management Services, Williamsburg, VA, 3/08

**Complying with the Federal Motor Carrier Safety Administration Regulations** - Review of updates, changes and requirements of the FMCSR - Transportation Risk Management Services, Williamsburg, VA, 3/08

**Crash Data Retrieval (CDR) Technician Certification** - Bosch approved training in exploring how to properly obtain crash data from ACM and PCM, solving connectivity and software issues to obtain download and how to support a collision analyst who would be using the data from a Bosch Crash Data Retrieval System output report as part of their crash analysis. - Collision Safety Institute, Ashburn, VA, 01/09

**Crash Data Retrieval (CDR) Data Analyst Certification** - Bosch approved training to understand the function of various control modules to evaluate and deploy appropriate safety systems and when possible, record crash data. Have the ability to read and understand stored crash data then apply that data properly to a situationally complete crash analysis. - Collision Safety Institute, Ashburn, VA, 01/09

**Fleet Risk Management Practices** - An overview of current practices in Fleet Risk Management - Transportation Risk Management Services, Williamsburg, VA, 4/09

**Complying with the Federal Motor Carrier Safety Administration Regulations** - Review of updates, changes and requirements of the FMCSR - Transportation Risk Management Services, Williamsburg, VA, 4/09

**2009 American College of Forensic Examiners National Conference** - Attended various forensic seminars to maintain ACFE's Certification as a Forensic Consultant, Las Vegas, NV 10/09

## PROFESSIONAL AFFILIATIONS

The National Association of Professional Accident Reconstruction Specialist, Inc.  
Member since 1997

Southeast Accident Reconstruction Society,  
Member since 2007

Illinois Association of Technical Accident Investigators,  
Member since 2008

Virginia Trucking Association  
Associate Member since 2009

Virginia Trucking Association Safety Management Council  
Member since 2009

## EXPERIENCE

11 years experience as a Police Officer in the States of Maine and New Hampshire. Responsibilities included, but not limited to, traffic crash investigations and reporting.

2 years experience as the Traffic Crash Reconstructionist with the Durham, New Hampshire Police Department. Responsible for investigation of fatal, serious injury and hit and run traffic crashes.

11 years of experience as a traffic crash reconstructionist expert, specialist in commercial vehicle crashes, Federal Motor Carrier Safety Regulations, DOT Safety Compliance and Audit reviews for Traffic Safety Consultants, Inc and FORCON International.

## QUALIFIED AS AN EXPERT WITNESS

### FLORIDA:

Florida Circuit Court;  
Broward County, Miami-Dade County, Osceola County,  
Putnam County

### GEORGIA:

Georgia Superior Court;  
Lowndes County

**MISSISSIPPI:**

Mississippi Circuit Court;  
Rankin County

**OHIO:**

Common Pleas Court;  
Gallia County, Ashland County

**WEST VIRGINIA:**

West Virginia Circuit Court;  
Berkeley County, McDowell County, Mercer County, Mingo County,  
Monongalia County, Raleigh County, Randolph County

**WEST VIRGINIA:**

Barboursville Municipal Court

**VIRGINIA:**

Virginia Circuit Court;  
City of Chesapeake, Floyd County, Henry County, Madison County,  
New Kent County, City of Richmond, Roanoke County

Virginia District Court;  
Floyd County, Henry County, City of Richmond

Virginia Workers Compensation Commission

**UNITED STATES DISTRICT COURTS:**

Southern District of Mississippi, Eastern Division (Meridian, MS)

Southern District Court of West Virginia (Bluefield, WV)

United States District Court, Eastern District of NY (Long Island, NY)

## TEACHING ACTIVITIES

Instructor of Accident Investigation for the New Hampshire Police Standards and Training Council

“Commercial Vehicle / Fleet Accident Reconstruction”  
Rea Construction Co., Richmond, VA, 5/18/99 and 5/21/99

“Overview of a Commercial Vehicle Crash Investigation”  
Virginia State Claims Association, Richmond, VA, 6/10/99

“Accident Reconstruction”  
Danville Claims Association, Danville, VA, 11/9/99

“Emergency Vehicle Accident Reconstruction”  
American Medical Response, Richmond, VA, 9/00

“Emergency Vehicle Accident Reconstruction”  
American Medical Response, Miami, FL, 9/00

“Emergency Vehicle Accident Reconstruction”  
American Medical Response, Ft. Lauderdale, FL, 10/00

“Emergency Vehicle Accident Reconstruction”  
American Medical Response, Largo, FL, 10/00

“Emergency Vehicle Accident Reconstruction”  
American Medical Response, Atlanta, GA, 10/00

“Emergency Vehicle Accident Reconstruction”  
American Medical Response, Gulfport, MS, 10/00

“Emergency Vehicle Accident Reconstruction”  
American Medical Response, Jackson, MS, 10/00

“Safe Commercial Vehicle Operation”  
Presented to over 100 CDL Drivers of Arlington Co., VA Public Works and Equipment Maintenance Division, 3/01, 4/01

“Accident Reconstruction”  
2001 West Virginia IASIU Seminar, Parkersburg, WV, 5/01

“Commercial Vehicle / Fleet Safety”  
Lectures to management personnel and complete safety audit review,  
Moores Lumber Co., NY, VA, WV, PA, MD, TN, NC, 10/01-1/02, 10/02-2/03

“Safe Commercial Vehicle Operation/ FMCSR Compliance”  
Annually presented to CDL Drivers of Arlington Co., VA Public Works and Equipment Maintenance Division, Arlington Co., VA, 3/02

“Overview of Airbrake Systems and Foundation Brake Components”  
Presentation for mechanics of Northern Neck Transfer, Inc., King George,  
VA, 11/02

“Complying with the Federal Motor Carrier Safety Administration Regulations - An  
overview of Driver and Vehicle Out-of-Service Criteria and ECM Technologies”  
Presentations to representatives of local Motor Carrier Companies, Roanoke, VA, 4/03

“Complying with the Federal Motor Carrier Safety Administration Regulations - An  
overview of Driver and Vehicle Out-of-Service Criteria and ECM Technologies”  
Presentations to representatives of local Motor Carrier Companies, Charleston, WV,  
5/03

“New Technologies in Accident Reconstruction” Presentation to the Virginia Farm  
Bureau Annual Conference, Sunset Beach, NC, 5/03

“Overview of Airbrake Systems and Foundation Brake Components”  
Presentation for mechanics of NAPA Transportation, Inc., Harrisburg, PA, 5/03

“New Technologies in Accident Reconstruction” presented to Florida Trucking  
Association Leadership Conference 2003, Sarasota, FL, 7/03

“New Technologies in Accident Reconstruction” presented to Tennessee Trucking  
Association Fall Conference 2004, Pickwick Landing State Park, TN, 11/04

“Commercial Vehicle / Fleet Safety” Lectures to management personnel, driver training,  
and complete safety audit review, The Contractor Yard, VA, WV, MD, TN, NC, SC, FL  
2006, 2007

“New Technologies in Accident Reconstruction (EDRs)” presented to Travelers,  
Richmond, VA, 11/07

“CMV Crash Investigation” presented to various fleet supervisors during Fleet Risk  
Management Practices, Williamsburg, VA 3/08

“Use of Animation in Trial” presented for Offutt & Nord’s Adjuster Continuing Education  
Seminar, Huntington, WV 7/08

“Investigation of Motor Vehicle Claims & Use of Accident Reconstruction” presented for  
Offutt & Nord’s State Farm Continuing Education Seminar, Charleston, WV 10/08

“EDR Validation and CMV Crash Investigation” presented to various fleet supervisors  
during Fleet Risk Management Practices, Williamsburg, VA 4/09

“EDR Capabilities and Validation Examples” presented to the Hampton Roads Claims  
Association, Virginia Beach, VA 5/09

“EDR Capabilities and Validation Examples” presented to the Richmond Claims Association, Richmond, VA 5/09

“Accident Reconstruction Basics” presented to attorneys and support staff of Bowman & Brooke, LLP, Richmond, VA 6/09

“Accident Reconstruction Basics/EDR Validation Examples” presented during Dinsmore & Shohl LLP’s continuing education for The Motorist Insurance Group, Columbus, OH 8/09

“EDR (Event Data Recorders) Current Technologies Available in Commercial Motor Vehicles and EDR Validation Issues for Traffic Crash Reconstruction” presented to Virginia Trucking Association at the 2009 Virginia Trucking Association Conference, Glen Allen, VA 9/09

“Methods of Event Data Recorders (EDR) Validation for Traffic Crash Reconstruction” presented at the 2009 American College of Forensic Examiners National Conference, Las Vegas, NV 10/09

“EDR (Event Data Recorders) Current Technologies Available in Passenger and Commercial Motor Vehicles and EDR Validation Issues for Traffic Crash Reconstruction” presented to the Virginia Association of Defense Attorneys at the 2009 VADA Annual Conference, Chantilly, VA 10/09

“Investigations of Motor Vehicle Claims & The Use of Accident Reconstruction” presented during Dinsmore & Shohl LLP’s continuing education for The Motorist Insurance Group, Cincinnati, OH 11/09

Updated: 1/24/10