



STEVE ANDERSON

ACTAR #2125

PROFILE

Steve Anderson retired from the Ontario Provincial Police after 23 years of experience in law enforcement. During this time, he has been actively involved in the field of traffic crash reconstruction.

Mr. Anderson has reconstructed more than 550 traffic collisions, provides training to law enforcement, private consultants, and engineers in the field of traffic crash reconstruction, and specializes in the field of event data recorders in both passenger cars and heavy trucks.

Steve frequently gives lectures and conference presentations on topics involving traffic crash investigation and reconstruction.

He has completed over 100 live instrumented crash tests, ranging in the classification of vehicle, bus, motorcycle, cyclist, pedestrian, commercial vehicles, and barrier systems.

Mr. Anderson has been qualified as an expert witness to give opinion related evidence on thirteen occasions since becoming a reconstructionist. Steve routinely provides technical assistance to police officers, engineers and investigators in this field.

CONTACT

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EDUCATION

Forest Heights Collegiate Institute

Graduated, 1993
High School Diploma

Conestoga College of Applied Arts and Technology

Certificate Issued
Law Enforcement & Investigations Program

WORK EXPERIENCE

Truck Crash Specialists, LLC, Owner

July 2022-Present

Providing consulting services to Sooner Crash Consulting, LLC; expert Witness services in Traffic Collision Reconstruction, with specialties in Commercial Motor Vehicles, Event Data Recorders, Commercial Vehicle Compliance, Computer Simulations, and training in traffic crash reconstruction. Developed curriculum and trained hundreds of students in both law enforcement and private sector in analysis and extraction of event data recorder (EDR) data from commercial motor vehicles. Serves as an adjunct instructor for the Forensic Training Group in Commercial Motor Vehicle collision investigations and Event Data Recorder Analysis.

Ontario Provincial Police, Police Officer

September 2008-July 2022

Initial duties resulted in reconstruction of benchmark occurrences, completing reports, attending training, and testifying in judicial proceedings. In 2017, Mr. Anderson's role changed to the assistant to the Provincial Coordinator with duties of: coordination and instruction of collision related training (reconstruction, technical collision investigation, annual reconstruction training, regional technical collision investigation seminars; assisting with acquisition and distribution of equipment; researching new equipment and technology, provide oversight and support to the program for the Unmanned Aerial System (UAS); program audits; statistical analysis; proctoring ACTAR examinations; reviewing reconstruction reports; providing a support network for all police officers in the field of reconstruction; imaging all off-vehicle extractions for heavy vehicles; development of training manuals; completion of procurements of software/equipment; crash testing and testing summaries/reports/white papers.

Halton Regional Police Service, Police Officer

July 1999-September 2008

Duties included general patrol; Regional Traffic Bureau - enforcement and investigations; Major Crime Bureau - Collision Reconstruction. During the role as a reconstructionist, responsible for reconstructing and investigating fatal and serious collisions.

Accreditations and Professional Associations

- Member of the International Network of Collision Reconstructionists (**INCR**)
- Member of Canadian Association of Traffic Accident Investigators and Reconstructionists (**CATAIR**) since 2007
- Member of Crash Data Retrieval Users Group (**CDR**) since 2009
- Member of Society of Automotive Engineers (**SAE**) since 2016
- Served as a Secondary Association Representative to the ACTAR Governing Board of Directors (**GBOD**) for five years and the Primary Association Representative Assigned to the CEU committee for six months
- Member of Heavy Truck EDR user group since 2018
- Member-Producer of the Society of Automotive Engineers (**SAE**) for the J2782 Standard (Truck and Bus Event Data Recorder Committee) since 2018

TEACHING AFFILIATIONS

Forensic Training Group, Adjunct Faculty

2018-Present

Duties include serving as an Adjunct Instructor and curriculum developer for the Heavy Truck Crash Reconstruction, Heavy Truck Event Data Recorder Analysis training program and Virtual Crash Simulation Software Instructor.

PROFESSIONAL ASSOCIATIONS AND CERTIFICATIONS

- Accreditation Commission for Traffic Accident Reconstructionist (ACTAR). Successfully completed accreditation exam and assigned accreditation number 2125.
- Member of Society of Automotive Engineers (SAE) ID 6143354523
- Member of International Network for Traffic Accident Reconstructionists (INCR)
- Member of Canadian Association of Traffic Accident Investigators and Reconstructionists (CATAIR)
- Member of Crash Data Retrieval Users Group (CDR)
- Member of Heavy Truck EDR User Group
- Member-Producer of the Society of Automotive Engineers for the J2728 Standard (Truck and Bus Event Data Recorder Committee)
- Small Remotely Piloted Aircraft System (RPAS) Visual line of Sight with Advanced Operations from Transport Canada #PC202765086
- Member of National Association of Fire Investigators #27299
- Member of International Association of Arson Investigators #1312421

SKILLS

- A.C.T.A.R. Accredited Collision Reconstructionist
- Event Data Recorder (Airbag Control Module) Expert
- Heavy Truck Event Data Recorder Expert
- Laser Mapping and Total Station Operator
- TC RPAS Advanced Certificate
- Crime Scene Photographer
- Crime Scene Investigator
- Live instrumented crash testing

EXPERIENCE

- Involved within the Technical Collision Program since 2003
- Since assuming the duties as a Reconstructionist, Steve has been involved in the investigation of more than 550 collision investigations ranging in classification from no injuries to fatal
- Instructed numerous foundational courses including:
 - At Scene Collision Investigation
 - Technical Collision Investigation Reconstruction Course
- Testified as Expert in numerous Ontario, Canada courts

AREAS OF TECHNICAL KNOWLEDGE

- Roadway Evidence and Identification and Interpretation
- Tire and Lamp Examination
- Vehicle Damage Analysis
- Vehicle Rollovers
- Pedestrian and Bicycle Collision Dynamics
- Occupant Placement and Restraint Examination
- Human Factors
- Speed Determinations
- Forensic Mapping and Scene Diagramming
- Vehicle Event Data Recorders
 - Passenger Vehicles
 - Commercial Vehicles
- Photography
- Time and Distance Analysis
- Point-area of impact determination
- Sequence of Events, vehicle placement pre-post collision
- Written and executed numerous search warrants.

LIVE CRASH TESTING

- As a reconstructionist I have attended numerous live crash test and assisted in the completion of 112 live instrumented crash tests ranging in classification of vehicle, bus, motorcycle, cyclist, pedestrian, roadside safety systems, commercial vehicles, and vessels.

CONFERENCE/COURSE PRESENTATIONS

“Northwest Region TCI Seminar”; Presented on practical testing review, CDR Operators Course [20-24 June 2022]

“Technical Collision Investigators Course”; Presented on collision prevention, court testimony, human factors, hvedr and practical testing data review. [30 May – 3 June 2022]

“Collision Reconstruction Course”: conduct live crash testing, presented on intro to HVEDR. [3,4,6 April 2022]

“At Scene Collision Course”, Presented on series of events, radius, critical curve speed, fail to remain. [21-25 March 2022]

“Final sign off Training”; delivered training to “final approvers” outlining expectations, how to effectively conduct a final review. [15 February 2022]

“Heavy Vehicle Event Data Recorders – Technician Course”; Presented on FLA, Field Notes, checklists, Volvo, Bus, Mack, Hino, Mitsubishi, Nissan, Simulators, Caterpillar, Paccar, Allison, Eaton, Bendix, Wabco, Detroit Assurance. [8-11 February 2022]

“International Forensic Photography Symposium”; Presented on pole photography for crash scenes. [18 January 2022]

“Collision Reconstruction Course”: conduct live crash testing, presented on intro to HVEDR and heavy truck reconstruction. [5,9 December 2021]

"*Technical Collision Investigators Course*"; Presented on collision prevention, speedometers, HVEDR, new vehicle technology, commercial motor vehicles, court testimony. [24,25,28 October 2021]

"*Collision Reconstruction Seminar*"; Presented on report reviews, Hyundai and Kia updates, Isuzu class 5 research, Toyota techstream, scientific method. [4-8 October 2021]

"*Technical Collision Investigators Course*"; Presented on systematic collision investigation, introduction to math, vehicle fire investigations, court testimony. [10-28 May 2021]

"*Collision Reconstruction Course*"; conduct live crash testing, presented on introduction and terminology, math concepts and calculator use, linear momentum, conservation of momentum, closing speeds, restitution, delta-v, commercial vehicle, HVEDR, expert evidence. [19 April – 7 May 2021]

"*At Scene Collision Course*", Presented on physical evidence, environmental concerns and view obstructions, vehicle examinations, field sketch, measuring techniques, drag factor and grade. [2-6 November 2020]

"*Technical Collision Investigators Course*"; Presented on expert testimony, new vehicle technology, speedometers, commercial vehicles, HVEDR. [25,26,30 October 2020]

"*Heavy Truck Reconstruction Techniques – Master Series*"; Presented on Correlation of Bendix BDR Data vs ECM Data. Virtual Conference – Nashville, Tennessee [22-24 September 2020]

"*Collision Reconstruction Course*"; conduct live crash testing, presented on introduction and terminology, math concepts and calculator use, linear momentum, conservation of momentum, closing speeds, restitution, delta-v, commercial vehicle, HVEDR, expert evidence. [13 April – 1 May 2020]

"*Hyundai, Kia, Tesla, Toyota Techstream Course*"; Presented on the above topics with hands on imaging of related modules and vehicles. [3-5 December 2019]

"*At Scene Collision Course*", Presented on series of events, environmental concerns and view obstructions, vehicle examinations, drag factors and grade. [4-8 November 2019]

"*Technical Collision Investigators Course*"; Presented on new vehicle technology, court testimony, commercial vehicles and HVEDR. [28, 30 October and 1 November 2019]

"*Correlation of Bendix BDR vs ECM Data, Speedometer stepper motor analysis*"; The Society of Accident Reconstructionists, Denver, Colorado [26-28 August 2019]

"*Technical Collision Investigators Course*"; Presented on systematic collision investigation, slide to stop, commercial vehicles, HVEDR. [6-24 May 2019]

"*Collision Reconstruction Course*"; conduct live crash testing, math concepts and calculator use, linear momentum, conservation of momentum, closing speeds, restitution, delta-v, commercial vehicle, HVEDR, expert evidence. [8-26 April 2019]

"*Bendix, Wabco and Video Radar Decision Units*"; Presented to 30 Forensics [19 March 2019]

"*Final sign off Training*"; delivered training to "final approvers" outlining expectations, how to effectively conduct a final review. [6 March 2019]

"*1st Annual Reconstruction Symposium*"; Presented on CDR Update, Performance Data Recorder, Introduction to HVEDR, speedometers. [14 February 2019]

"*ORBA – Ontario Road Builders Association*"; 92nd Annual Conference, Innovation through collaboration, presented on work zone crash statistics and the police relationship. [5 February 2019]

"*Heavy Vehicle Event Data Recorders – Technician Course*"; Presented on FLA, SSS1, SSS2, data preservation, Bendix, Volvo, Mack, Hino, Isuzu, Buses, Cables and Connectors, RP2110, Caterpillar, Paccar. [15-18 January 2019]

"*Collision Reconstruction Seminar*"; presented on expert witness testimony, commercial vehicle updates, alternative speed analysis – video. [19-23 November 2018]

"*Collision Reconstruction Seminar*"; presented on expert witness testimony, commercial vehicle updates, IMS Review, alternative speed analysis – video. [29 October 2018]

"*Technical Collision Investigators Course*"; Presented on motorcycle collisions, commercial vehicles, HVEDR, pedestrian collisions, new vehicle technology, court testimony, technical collision reports. [25-26 October 2018]

"*Heavy Truck Reconstruction Techniques – Including Digital Forensics*"; presented on HVEDR, imaging of several ecms, hardware and software. [15-19 October 2018]

"*Tennessee Highway Patrol Crash Conference*"; presented on Performance Data Recorder and Speedometer Research. [4-8 June 2018]

"*Technical Collision Investigators Course*"; Presented on systematic collision investigation, curriculum vitae, drag factors and grade, airborne, court testimony, HVEDR. [7-25 May 2018]

"*Collision Reconstruction Course*"; conduct live crash testing, presented on introduction and terminology, math

concepts and calculator use, linear momentum, conservation of momentum, closing speeds, restitution, delta-v, commercial vehicle, HVEDR, expert evidence, CDR Technician Course, Alternative Speed Analysis – Video, Performance Data Recorder, Speedometer Research. [16 April – 4 May 2018]

“OAPC – Ontario Asphalt Paving Council”; Spring Operations Seminar, presented on work zone safety – increased risk to workers and the public – an outside agency looking in at the construction world. [5 April 2018]

“Heavy Vehicle Event Data Recorder – Analysis Course”; presented on heavy vehicle analysis (hard brake, last stop/quick stop – what does it all mean”, Isuzu, Cummins, Detroit, FLA. [27 November – 1 December 2017]

“At Scene Collision Course”, Presented on introduction to math, environmental concerns, and view obstructions, fail to remain, assisted in the practical components relating to examinations, measurement techniques. [20-24 November 2017]

“ORBA – Ontario Road Builders Association” – Occupational Health and Safety Committee Meeting, presented on the OPP perspective relating to work zone and stopped/cued traffic collisions. [8 November 2017]

“Technical Collision Investigators Course”; Presented on vericom, court testimony, vehicle speedometers, commercial vehicles, HVEDR, ATV collisions, motorcycles, new vehicle technology, performance data recorder. [23-30 October and 1-2 November 2017]

“Heavy Vehicle Event Data Recorder – Analysis Course”; presented on heavy vehicle analysis (hard brake, last stop/quick stop – what does it all mean”, Isuzu, Cummins, Detroit, FLA. [16-20 October 2017]

“Technical Collision Investigators Course”; Presented on systematic collision investigations, slide to stop, drag factors and grade, commercial vehicles, court testimony. [8-26 May 2017]

“Collision Reconstruction Course”: conduct live crash testing, presented on linear momentum, conservation of momentum, closing speeds, restitution, delta-v, commercial vehicle, HVEDR, expert evidence, CDR Technician Course. [18 April – 5 May 2017]

“Synercon Technologies Summit”; presented on the FLA, SSS as it related to the OPP and a case example. [13 Feb 2017]

“Heavy Vehicle Event Data Recorders – Technician Course”; Presented on FLA, SSS1, SSS2, data preservation, Bendix, Volvo, Mack, Hino, Isuzu, Buses, Cables, and Connectors, RP2110, Caterpillar, Paccar. [16-20 January 2017]

“Collision Reconstruction Seminar”; presented on critical speed yaw with esc – case problem, speedometer examination and crash speed correlation, post collision vehicle fire examination. [21-25 November 2016]

“Ministry of Labour”; presented on light meters. [19 April 2016]

“At Scene Collision Course”, Presented on series of events, environmental concerns and view obstructions, field sketch and practical. [19-20 October 2015]

TRAINING RELATED TO CRASH INVESTIGATIONS

“Eaton Transmission and SR4 Software”, 6 hours of instruction on TCM and ECU modules [Daniel Paquette]; Eaton, Ontario, Canada [8 June 2022]

“Wreckmaster Introduction to Level 6/7”, Certificate of Completion [Michael Seversen] Wreckmaster – Virtual Training [7 June 2022]

“Eaton Transmission and SR4 Software”, 6 hours of instruction on TCM and ECU modules [Daniel Paquette]; Eaton, Ontario, Canada [7 April 2022]

“Accident Reconstruction Digital Summit”, [29-30 March, 2022] Society of Automotive Engineers – Virtual Event

“Bendix Comprehensive Air Brake Training Program”, In the operation and maintenance of heavy-duty vehicle air brake systems and components – interactive training – certification of completion; 108 total learning modules with testing Bendix, Virtual Training [2021-2022]

“2022 HVE Forum”, Certificate of Completion of 24 hours of workshops [Various Instructors] HVE – Virtual Training [2 March 2022]

“Wreckmaster Live 2/3 Classroom”, Certificate of Completion [Michael Seversen] Wreckmaster – Virtual Training [22 February 2022] “Forensic Photography Symposium”, Virtual Symposium [17-20 January 2022]

“Wheel End Diagnostics, Tips and Tricks”, 2 hours of instruction; [Scott Meeke] Diesel Laptops – Virtual Training [10 January 2022]

“Navistar/International Diamond Logic Builder”, 1 hour of instruction; [Scott Meeke] Diesel Laptops – Virtual Training [3 January 2022]

“Caterpillar Electronic Technician (ET)”, 1 hour of instruction; [Martin] Diesel Laptops – Virtual Training [3 January 2022]

“Basic Electrical Diagnostic Skills for the Diesel Technician”, 1.5 hours of instruction; [Scott Meeke] Diesel Laptops – Virtual Training [3 January 2022]

“National Traffic Incident Management – Train the Trainer Course”, National TIM Responder Training Program Completion – Virtual Training over two days; various instructors Virtual [30 November and 1 December 2021]

"Eaton Transmission and SR4 Software", 5 hours of instruction on TCM and ECU modules [Daniel Paquette]; Eaton, Ontario, Canada [8 September 2021]

"After treatment regeneration system Diagnostics", 1.5 hours of instruction; [Scott Meeke] Diesel Laptops – Virtual Training [8 December 2021]

"The Investigation and Prosecution of Criminal Vehicular Homicide Cases; Forensics is our Friend (Part 2)", Importance of on-scene evidence collection [Master Corporal Schultz; Crime Laboratory Analysis Supervisor Ron Mueller] Virtual Webinar [26 October 2021]

"Motorcycle Collision Reconstruction", Axiom Forensic [Louis R. Peck], [4-8 October 2021] Ontario Provincial Police – Orillia, Canada

"Electronic Devices After a Crash", Commercial Vehicle Safety Alliance [Terry Kummer] CVSA – Virtual [17 August 2021]

"Everything you ever wanted to know about autonomous trucks webinar", 1.5hrs of instruction; [Dan Goff – Kodiak Robotics and Will Schaefer – CVSA] CVSA – Virtual Training [21 July 2021]

"Municipal Litigation Risk Management: The Human Factors in Current and Future Roadway Risk and Liability Assessments Confirmation", 1 hour of instruction [Adam Campbell – 30 Forensics] 30 Forensics - Virtual Training [29 July 2021]

"Emerging Municipal Construction Challenges", 1 hour of instruction; [Jeff Reitsma] 30 Forensics Diesel Laptops – Virtual Training [22 July 2021]

"Detroit Diagnostic Link 8 – Premium Webinar", 1 hour of instruction; [Scott Meeke] Diesel Laptops – Virtual Training [21 July 2021]

"The Digital Witness – The Use and Limitations of Photo and Video Evidence – Webinar Series", 1 hour of instruction [Nishan Perera – 30 Forensics] 30 Forensics - Virtual Training [15 July 2021]

"Vehicle Data Forensics (Sourcing, Accessing, Interrogating) – Webinar Series", 1 hour of instruction [Harrison Griffiths – 30 Forensics] 30 Forensics - Virtual Training [8 July 2021]

"Paccar Davie4 – Premium Webinar", 1.5 hours of instruction; [Daniel] Diesel Laptops – Virtual Training [28 June 2021]

"Human Factors", 4 hours of instruction; [Dr. Jeff Muttart] Ontario Provincial Police – Virtual Training [15 June 2021]

"Assessments of Pedestrian and Cyclist Motor Vehicle Collisions – Webinar Series", 1 hour of instruction [Mark Paquette and Chad Gooyers – 30 Forensics] 30 Forensics - Virtual Training [3 June 2021]

"Volvo Premium Tech Tool – Premium Webinar", 2 hours of instruction; [Scott Meeke] Diesel Laptops – Virtual Training [16 April 2021]

"Air Brake System Basics", 1.5 hours of instruction; [Steve Lamb - Sealco] Virtual Training [15 April 2021]

"TEXA IDC5 Training Webinar", 1.5 hours of instruction; [Mike] Diesel Laptops - Virtual Training [15 April 2021]

"Cummins Insite – Premium Webinar", 2.5 hours of instruction: [Scott Meeke] Diesel Laptops - Virtual Training [13 April 2021]

"Giving Stronger Deposition and Trial Testimony", 2 hours of instruction"; [Chris Konzelman] International Association of Arson Investigators (IAAI) - Virtual Training [11 April 2021]

"Eaton Transmission and SR4 Software", 5.5 hours of instruction on TCM and ECU modules [Daniel Paquette]; Eaton, Ontario, Canada [4 March 2021]

"2021 HVE Forum", Certificate of Completion of 24 hours of workshops [Various Instructors] HVE – Virtual Training [25 February 1-3 March 2021]

"Analysis of ECM Data in New Freightliners", [Wes Grimes, David Plant and Greg Wilcoxson], NAPARS joint Virtual 2020 Conference [13 October 2020]

"Obtaining Chip-level Data from Modules", [Matt DiSogra], NAPARS joint Virtual 2020 Conference [9 October 2020]

"Heavy Truck Reconstruction Techniques – Master Series", Forensic Training Group – Virtual Conference – Nashville, Tennessee [22-24 September 2020]

"Annual HVE Workshop", Updates and case work with the HVE 2-D Program – Milton, Ontario, Canada [10-11 March 2020]

"2nd Annual Reconstruction Symposium", various lectures, Toronto, Ontario, Canada [2 March 2020]

"Crush Energy Analysis in Collision Reconstruction", Accident Analysis & Reconstruction, Inc [Greg Russell] Ontario Provincial Police, Orillia, Ontario [18-22 November 2022]

"Trimble S7 Total Station Training", [Hunter Martin] Ontario Provincial Police, Orillia, Ontario [15-19 July 2022]

"Technical Reconstruction of Heavy Truck Crashes", Various Lectures – SOAR – The Society of Accident Reconstructionists – Denver, Colorado [26-28, 2019]

"Input-Ace Seminar – Utilizing Video in Crash Investigations", CATAIR Sponsored Event Toronto, Ontario Canada [25 June 2019]

"2019 Annual Synercon Summit" – SSS2, TruckCrypt 2.0, Transition to DG
DG Technologies – Detroit, Michigan

"2019 HVE Annual Update" – HVE Forum Update
Milton, Ontario Canada [4-5 March 2019]

"1st Annual Reconstruction Symposium", various lectures,
Toronto, Ontario, Canada [14 February 2019]

"Expert Witness Colloquium", various lectures,
University of Toronto – Law Forensic Science Group
Toronto, Ontario, Canada [8 February 2019]

"CATAIR Crash Conference", various lectures,
Aylmer, Ontario, Canada [20-23 August 2018]

"Digital Forensics of Heavy Vehicle Event Data Recorders
and Annual Synercon Summit",
The University of Tulsa/Synercon Technologies
Tulsa, Oklahoma [17-20 June 2018]

"Tennessee Highway Patrol Crash Conference", various
lectures,
Nashville, Tennessee [4-8 June 2018]

"EDC – Engineering Dynamics Corporation (HVE 2-D)",
Reconstruction Simulation Training [EDC – via James
Sneddon]
Ontario Police College, Aylmer, Ontario, Canada [8-12
January 2018]

"ARV-CSI Crash Conference", various lectures,
Las Vegas, Nevada [18-20 September 2017]

"NATARI Crash Conference", various lectures,
New Jersey [9–11 August 2017]

"Skyranger Level 1 Training (Beta)", MCS Operating
System, Theory and Practical Operations,
Aeryon Labs, Waterloo, Ontario, Canada [17-18 May
2017]

"Unmanned Aerial Systems Operators Course (UAS)",
MCS Operating System, Theory, Practical Operations and
Pix4d Imaging Software,
Ontario Provincial Police, Burlington, Ontario, Canada [3-
5 May 2017]

"CDR Train the Trainer", [Brad Muir]
Durham Regional Police Association Hall, Oshawa,
Ontario [20 March 2017]

"UAS Conversion Training to Skyranger Model",
Conversion training from Aeryon Scout UAS to Aeryon
Skyranger UAS models
Ontario Provincial Police – Burlington, Ontario, Canada
[3-6 October 2016]

"Advanced Fire, Arson and Explosion Investigation
Training Program/Seminar – 1033 & 921 – Putting it
together", National Association of Fire Investigators,
various instructors
Tampa, Florida [18-22 July 2016]

"Digital Forensics of Heavy Vehicle Event Data
Recorders", [Dr. Jeremy Daily]
The University of Tulsa/Synercon Technologies
Tulsa, Oklahoma [14-16 June 2016]

"WREX – World Reconstruction Exposition", various
lectures
Orlando, Florida [2-6 May 2016]

"Using Excel in Accident Investigation", Accident Analysis
and Reconstruction Inc [Greg Russell and Vladimir
Bortchevsky]
Ontario Provincial Police, Orillia, Ontario, Canada [16-20
October 2015]

"Advanced Collision Analysis Education Program",
Western University - Motor Vehicle Safety Research Team
various lectures
London, Ontario, Canada [2 November 2015]

"Vehicle Fire, Arson and Explosion Investigation Science
and Technology Seminar", National Association of Fire
Investigators
Lexington, Kentucky [21-24 September 2015]

"Lecol Inc's 2015 Roadside Safety Seminar", Crash Testing
Symposium
Markham, Ontario, Canada [9 September 2015]

"Investigating Human Fatigue Factors", Human Fatigue
Specialist – Sleaanddreams.com [Clinton Marquardt]
Ontario Provincial Police, Orillia, Ontario, Canada [26-30
November 2014]

"Restricted Operator Certificate with Aeronautical
Qualifications – ROC-A", [UAV Training SFOC Consulting –
Richard Podolski ATP]
Ontario Provincial Police, Aurora, Ontario, Canada [10
June 2014]

"Human Factors for Traffic Crash Reconstruction", [Crash
Safety Research Group – Dr. Jeff Muttart]
Peel Regional Police – Mississauga, Ontario, Canada [24-
28 March 2014]

"Commercial Motor Vehicle Module Download Course",
[Messerschmidt Safety Consultants – William
Messerschmidt and Commonwealth Transportation
Consultants – Ron Baade]
Barrie, Ontario, Canada [17-22 March 2014]

"Advanced Collision Analysis Education Program",
Western University - Motor Vehicle Safety Research Team
various lectures
London, Ontario, Canada [3 December 2013]

"Advanced Motorcycle Crash Analysis", Mechanical
Forensics Engineering Services, LLC [Wade Bartlett]
Ontario Provincial Police – Orillia, Ontario [18-22
November 2013]

"UAV Ground School", Operation of an Unmanned Aerial
Vehicle – as per SFOC issued to OPP, [Richard Podolski
and Cory Mah – Lake County Airways #3398]

Ontario Provincial Police – Aurora, Ontario [7-10 October 2013]

“Advanced Collision Reconstruction with CDR Applications”, Accident Analysis and Reconstruction Inc and Crash Data Specialists LLC [Greg Russell and Brad Muir]

Ontario Provincial Police – Orillia, Ontario [26-30 November 2012]

“Heavy Vehicle Event Data Recorder (HVEDR)”, 3 Axis Engineering – Tuscaloosa Alabama [J. Parker and A. Powers]

Ontario Provincial Police – Bradford, Ontario [March 2012]

“Advanced Highway Incident Management Workshop”, [John O’Laughlin]

Ontario Provincial Police – Orillia, Ontario [8 February 2012]

“EDC’s HVE-CSI Collision Software”, TechRecon Incorporated – Engineering Dynamics Corporation [Charles R. Lewis]

Ontario Provincial Police – Aurora, Ontario [7-10 December 2011]

“Human Factors for Traffic Crash Reconstruction”, [Crash Safety Research Group – Dr. Jeff Muttart]

Peel Regional Police – Mississauga, Ontario, Canada [7-11 November 2011]

“Advanced Collision Reconstruction with CDR Applications”, Accident Analysis and Reconstruction Inc and Crash Data Specialists LLC [Greg Russell and Brad Muir]

CATAIR Annual Conference - Aylmer, Ontario [22-26 August 2011]

“Pedestrian Collision Reconstruction”, Accident Analysis and Reconstruction Inc [Greg Russell]

Ontario Provincial Police – Aylmer, Ontario [6-10 June 2011]

“Crush Energy Analysis in Collision Reconstruction”, Accident Analysis and Reconstruction Inc [Greg Russell]

Peel Regional Police – Mississauga, Ontario [14-18 February 2011]

“3D Studio Max Forensic Animations”, [Eugene Liscio]

Ontario Provincial Police – Orillia, Ontario [22-26 November 2010]

“Applied Physics for Collision Reconstruction”, Schmidt Consulting Services LLC [Bruno Schmidt]

Ontario Provincial Police – Orillia, Ontario [15-19 November 2010]

“Total Station Course”

Ontario Provincial Police – Orillia, Ontario [8-10 November 2010]

“Pedestrian/Bicycle Collision Reconstruction Course”, [RCMP Sergeant Al Strickland and RCMP Inspector Eric Brewer], RCMP and Peel Regional Police Mississauga, Ontario [3-7 May 2010]

“Mapscenes Course”

Ontario Provincial Police – Orillia, Ontario [22-26 February 2010]

“Acceleration and Vericom Familiarization”, Vericom Computers, Inc [Richard A. Jobe]

Guelph Police Service – Guelph, Ontario [10-11 December 2009]

“Advanced Collision Reconstruction with CDR Applications”, Accident Analysis and Reconstruction Inc [Greg Russell]

Ontario Provincial Police – Orillia, Ontario [16-20 November 2009]

“Forensic Examination of Commercial Motor Vehicles for Collision Reconstruction”, Stopper and Associates [Dave Stopper]

Ontario Provincial Police – Aurora, Ontario [21-24 September 2009]

“Photography Techniques for Collision Investigation”, Ontario Provincial Police – Aurora, Ontario [27-29 April 2009]

“Accident Reconstruction Associated with Data Extraction of Electronic Control Modules and other On-board Data Collection Devices”, Analysis Inc [Phil Smith]

Ontario Provincial Police – Mississauga, Ontario [15-18 April 2009]

“Commercial Vehicle Safety Alliance (CVSA) Training Part A, B and C, Cargo Securement”, Ministry of Transportation MTO – Ontario Fire College – Gravenhurst, Ontario [16-31 March and 1-9 April 2009]

“Crash Data Retrieval CDR System Operators Certification”, Data Retrieval Technician and Data Analyst Course [Brad Muir]

Collision Safety Institute – Vetronix Bosch Group – Toronto, Ontario [23-27 February 2009]

“Human Factors for Traffic Crash Reconstruction”, [Accident Dynamics Research Center - Dr. Jeff Muttart]

Oakville, Ontario, Canada [2-6 February 2009]

“Advanced Collision Reconstruction with Excel Applications”, Accident Analysis and Reconstruction Inc [Greg Russell]

Peel Regional Police – Mississauga, Ontario [8-12 December 2009]

“Mapscenes 2008 Upgrade Course”, [Brad Muir]

Ontario Provincial Police – Oakville, Ontario [17-19 November 2008]

“Total Station – Sokkia Series SRX5 Training”, [Pat Hills]

Halton Regional Police Service – Burlington, Ontario [2 October 2008]

“Inspection and Investigation of Commercial Vehicle Crashes”, Police Technology and Management University of North Florida [James Sloan]

Peel Regional Police Service – Mississauga, Ontario [15-19 October 2007]

“CATAIR Conference”, various presenters
Ontario Police College – Aylmer, Ontario [20-24 August 2007]

“Motorcycle Crash Investigation Course”, IPTM [Al Baxter and Neil Robar]
Halton Regional Police Service – Burlington, Ontario [11-15 September 2006]

“Total Station – An Electronic Distance Measuring Instrument”, [Gary McBratney]
Toronto Police – Toronto, Ontario [16-17 August 2006]

“Collision Reconstruction Course”, various lectures
Ontario Police College, Aylmer, Ontario [2-21 April 2006]

“CDR System Technician Course”, [Brad Muir]
Ontario Police College, Aylmer, Ontario [19 April 2006]

“Technical Collision Investigation Course”, various lectures
Ontario Police College, Aylmer, Ontario [12-30 September 2005]

“Technical Collision Investigation Course”, various lectures
Toronto Police Service – Toronto, Ontario [14-25 June 2004]

“At Scene Collision Course”, various lectures
Toronto Police Service – Toronto, Ontario [29 September – 10 October 2003]

EXPERT TESTIMONY

APRIL 12, 13, 2021 (OTTAWA)

PROVIDED EXPERT TESTIMONY; (HIS HONOR MATTHEW WEBBER)
ONTARIO SUPERIOR COURT OF JUSTICE – TRIAL – R VS DIALLO IN TECHNICAL COLLISION RECONSTRUCTION, EVIDENCE WITHIN THIS GENERAL HEADING INCLUDED: DOWNLOAD AND ANALYSIS OF HEAVY VEHICLE EDRs AND CALCULATION OF SPEED, TIME AND DISTANCES FROM DOWNLOAD DATA.

NOVEMBER 25, 2019 (KINGSTON)

PROVIDED EXPERT TESTIMONY; (HIS HONOR GARY TRANMER)
ONTARIO SUPERIOR COURT OF JUSTICE – TRIAL – R VS TABANAO IN COLLISION RECONSTRUCTION, QUALIFIED TO GIVE OPINION EVIDENCE RELATING TO COLLISION RECONSTRUCTION INCLUDING HEAVY COMMERCIAL VEHICLE DIGITAL FORENSICS AND IMAGING AND DOWNLOADING DATA FROM COMMERCIAL VEHICLE ENGINE CONTROL MODULES (ECMs); AND AS A COLLISION RECONSTRUCTIONIST QUALIFIED TO GIVE OPINION EVIDENCE RELATING TO FORENSIC MAPPING AND TIME/DISTANCE/SPEED CALCULATIONS BASED ON GPTS TRACKING DATA AND GOOGLE MAPS.

OCTOBER 22, 2018 (OTTAWA)

PROVIDED EXPERT TESTIMONY; (HER HONOR CATHRYN AITKEN)
ONTARIO SUPERIOR COURT OF JUSTICE – TRIAL – R VS ST. HILAIRE ON COLLISION RECONSTRUCTION, SPECIFICALLY THE FOLLOWING TOPICS: COLLECTION AND INTERPRETATION OF PHYSICAL EVIDENCE AND DATA COLLECTION AT SCENES, COLLISION DYNAMICS AND

TRAJECTORIES, OPINIONS ON CAUSES OF ACCIDENTS, AREA/POINT OF IMPACT.

SEPTEMBER 20, 21, 27, 2018 (MISSISSAUGA)

PROVIDED EXPERT TESTIMONY; (HIS WORSHIP ANGELO E. AMENTA)
ONTARIO COURT OF JUSTICE – TRIAL – R VS AHMED ON THE FOLLOWING TOPICS: COLLECTION AND INTERPRETATION OF PHYSICAL EVIDENCE, COLLISION DYNAMICS, CALCULATIONS OF VEHICLE SPEEDS, INTERPRETATION OF VEHICLE DATA RECORDERS FOR PASSENGER VEHICLES, OPINIONS ON CAUSES OF ACCIDENTS AREA/POINT OF IMPACT.

SEPTEMBER 15TH, 2017 (SARNIA)

PROVIDED EXPERT TESTIMONY; (HIS WORSHIP BRUCE THOMAS)
SUPERIOR COURT OF JUSTICE – PRE-TRIAL MOTIONS - R VS BRAR ON THE FOLLOWING TOPICS: ENGINE CONTROL MODULE (ECM) DETERMINATION, INTERPRETATION AND ANALYSIS AS IT PERTAINS TO HEAVY VEHICLES (COMMERCIAL MOTOR VEHICLES) FOR COLLISION RECONSTRUCTION.

DECEMBER 15TH, 2016 (OTTAWA)

PROVIDED EXPERT TESTIMONY; (HIS WORSHIP DAVID M. PACIOCCO) **ONTARIO COURT OF JUSTICE – PRELIMINARY HEARING - R VS ST-HILAIRE** ON THE GENERAL TOPIC OF: COLLISION RECONSTRUCTION; SPECIFICALLY: COLLECTION AND INTERPRETATION OF PHYSICAL EVIDENCE AND DATA FROM SCENES, COLLISION DYNAMICS AND COLLISION TRAJECTORIES.

MARCH 3RD, 2016 (HAMILTON)

PROVIDED EXPERT TESTIMONY; (HIS WORSHIP FREDERIC CAMPLING)
ONTARIO COURT OF JUSTICE R VS. RAI ON THE GENERAL TOPIC OF: ACCIDENT RECONSTRUCTION; SPECIFICALLY: COLLISION DYNAMICS, COLLECTION AND INTERPRETATION OF PHYSICAL EVIDENCE AT COLLISION SCENES, CALCULATIONS OF VEHICLE SPEEDS, OPINIONS ON CAUSES OF ACCIDENTS, INTERPRETATION OF VEHICLE DATA RECORDERS FOR COMMERCIAL AND PASSENGER VEHICLES.

SEPTEMBER 9TH, 2014 (ST. CATHARINES)

PROVIDED TESTIMONY; SUPERIOR COURT OF JUSTICE – DISCOVERY HEARING - R VS. NICHOLLS ON THE GENERAL TOPIC OF: ACCIDENT RECONSTRUCTION; ACCEPTED BY HEAD CROWN ATTORNEY TYLER SHUSTER AND DEFENCE COUNSEL DEAN PAQUETTE.

NOVEMBER 1ST, 2010 (BURLINGTON)

PROVIDED EXPERT TESTIMONY; (HIS WORSHIP P. J. MACPHAIL)
ONTARIO COURT OF JUSTICE R VS. ARIGANELLO ON THE GENERAL TOPIC OF: ACCIDENT RECONSTRUCTION.

JUNE 23RD, 2010 (MILTON)

PROVIDED EXPERT TESTIMONY; (HIS HONOR M. G. J. QUIGLEY)
ONTARIO SUPERIOR COURT OF JUSTICE R VS. THOMPSON ON THE FOLLOWING TOPICS: COLLISION DYNAMICS, COLLISION TRAJECTORIES, COLLECTION & INTERPRETATION OF PHYSICAL EVIDENCE AT COLLISION SCENES, THE INTERPRETATION OF DATA GATHERED BY OTHER OFFICERS AS TO COLLISION SCENES, VEHICLE CONDITION, VEHICLE MECHANICS, CALCULATIONS OF VEHICLE SPEEDS, OPINIONS ON CAUSES OF ACCIDENTS, AREA/POINT OF IMPACT.

FEBRUARY 17TH, 2010 (TORONTO)

PROVIDED EXPERT TESTIMONY; ONTARIO COURT OF JUSTICE R VS. ROSSI ON THE GENERAL TOPIC OF: COLLISION RECONSTRUCTION.

JANUARY 28TH 2010 (NEW MARKET)

PROVIDED EXPERT TESTIMONY, ONTARIO COURT OF JUSTICE R vs.

MCLEOD ON THE FOLLOWING TOPICS: COLLISION DYNAMICS, COLLISION TRAJECTORIES, COLLECTION & INTERPRETATION OF PHYSICAL EVIDENCE AT COLLISION SCENES, THE INTERPRETATION OF DATA GATHERED BY OTHER OFFICERS AS TO COLLISION SCENES, VEHICLE CONDITION, VEHICLE MECHANICS, CALCULATIONS OF VEHICLE SPEEDS, OPINIONS ON CAUSES OF ACCIDENTS, AREA/POINT OF IMPACT.

APRIL 23, 2007 & MAY 7TH 2007 (BURLINGTON)

PROVIDED EXPERT TESTIMONY; (HIS WORSHIP BARRY QUINN)

ONTARIO COURT OF JUSTICE R vs. DOUGAN ON THE FOLLOWING TOPICS: COLLISION DYNAMICS, COLLISION TRAJECTORIES, COLLECTION & INTERPRETATION OF PHYSICAL EVIDENCE AT COLLISION SCENES, THE INTERPRETATION OF DATA GATHERED BY OTHER OFFICERS AS TO COLLISION SCENES, VEHICLE CONDITION, VEHICLE MECHANICS, CALCULATIONS OF VEHICLE SPEEDS, OPINIONS ON CAUSES OF ACCIDENTS, AREA/POINT OF IMPACT.

PUBLICATIONS/WHITE PAPERS/TRAINING MATERIALS

Society of Automotive Engineers – SAE#2022-01-0821
“Validation of Frozen Speedometer Readings against EDR Data”, co-author with Chris Goddard. This paper discusses the analysis of 236 vehicles with frozen speedometer readings comparing against EDR data from crashed vehicles. [2022]

Society of Automotive Engineers – SAE#2021-01-0876
“Snowmobile Pole Crash Tests”, co author with Mark Paquette, Harrison Griffiths and Mark Wright. This paper presents the results of 6 snowmobile crash tests. [2021]

“Acceleration and Emergency Braking Tests of a Class 5 Commercial Motor Vehicle”, co-author with Chris Prent. Testing of a 2017 Isuzu NQR two axle hydraulic truck, analysis of the results for useable valuables for reconstruction methods. Article in *Accident Reconstruction Journal*, Volume 31, No2, March/April 2021. [2021]

Development of the OPP Trimble Training Manual for S7 Robotic Total Stations, Including the Mesa2 Data Collector, co-author with several OPP members. [2021]

“Friction Values for Sliding Commercial Motor Vehicles”, co-author with Dave Stopper. This is an update to the 2000Wrex paper from Dave Stopper. Article in *Impact (The Journal of the Institute of Traffic Accident Investigators)*, Autumn 2020, Volume 28, No 2. [2020]

Development of the *HVEDR Manual*, co-author with Brian McLaughlin, Mark Japp, Terry Yeomans and Chris Prent. This 400 plus page document outlines imaging process/guide for all makes of heavy vehicles, module locations, software updates and definitions. [2020]

“Friction Values for Sliding Commercial Motor Vehicles”, co-author with Dave Stopper. This is an update to the 2000Wrex paper from Dave Stopper. Article in *Accident*

Reconstruction Journal, Volume 30, No 4, July/August 2020. [2020]

Development of the Training Materials for Hyundai, Kia, Tesla and Toyota Techstream Course, co-author with Brad Muir. This encompassed training materials and practical components. [2019]

“Correlation of Bendix Data Recorder (BDR) versus Engine Control Module (ECM) data”, this article discusses the correlation of these two sources of data and reports on the application of the data for reconstructionists. Article in *Impact (The Journal of the Institute of Traffic Accident Investigators)*, Winter 2018, Volume 26, No 3. [2018]

“An Evaluation of the General Motors (GM) Performance Data Recorder (PDR) System”; This article addresses the PDR system, recording methodologies and correlation of data for use in the application of reconstruction. Article in *Impact (The Journal of the Institute of Traffic Accident Investigators)*, Autumn 2019, Volume 27, No 3. [2018]

Development of the Practical Portion and Training Manual of the IMS Map360 Computer Aided Drawing Program (CAD), co-author with several OPP members. [2017-2016]

Development of the Training Materials for a Heavy Vehicle Event Data Recorder – Analyst Course, co-author with Mark Japp, Chris Prent, Brian McLaughlin and Terry Yeomans. This course outlined the analysis of digital data and the proper application of the data to situationally appropriate reconstruction cases. [2017]

Development of the Training Materials for a Heavy Vehicle Event Data Recorder – Technician Course, co-author with Mark Japp, Chris Prent, Brian McLaughlin and Terry Yeomans. This course outlined the download protocols, instructional materials, hands on practical experience and testing components. [2016]