

EDUCATION :

National Association of Professional Accident Reconstruction Specialists (NAPARS), Maryland Association of Traffic Accident Investigators (MATAI), National Association of Traffic Accident Reconstructionists and Investigators (NATARI), New Jersey Association of Accident Reconstructionists (NJAAR), New York Statewide Traffic Accident Reconstructionists (NYSTARS),

2017 Joint Conference on Motor Vehicle Collision Reconstruction

August 9-11, 2017 Glassboro, New Jersey

New Mapping technology for Crash Scenes in Law Enforcement; Delta-V and Principal Direction of Force for Crash Investigations; The use of Monte Carlo for Crush Analysis; Video Analysis in Crash Investigation; The use of Drones in Crash Investigations; Updates in Crash Data Retrieval Technology; Unusual Crash Investigation Methods; Thinking Outside the Box; and Field Crash Testing.

Crash Safety Solutions, LLC

Human Factors in Traffic Crashes – Jeffrey Muttart, Ph.D

July 10-14, 2017, Durham, New Hampshire

History and Foundation of Reaction Time Research; Understanding Driver Response Terms and Definitions; Weather Influences and Driver Response; Evaluating a Response during Nighttime Driving; Nighttime Response Scenarios and Documenting Nighttime Crashes; Headlight Beam Analysis; Evaluating Path Intrusion Crashes; Acceleration Rates of Drivers; Gap Acceptance; Driver Search Patterns; Driver Response to Lead Vehicles, Traffic Signals, and Decision Making; and Tutorial on the Interactive Driver Response Research (I.DRR) Software.

WREX2016 (World Reconstruction Exposition)

Sponsored by 21 crash associations from around the world.

May 2-6, 2016, Orlando, Florida

Attended a five-day event. Topics included keynote address by Don Karol, NTSB – Highway Crash Investigation; Learning from Tragedy; Driver Response Depends Upon Information Content; Update on the newest research by Jeffrey Muttart, Ph.D; Human Factors; the Anatomical Blind Spot – Why We Don't See Conflicting Traffic When We Look; Using Limited Vehicle Data to Estimate Time/Distance/Speed Relationships for Accelerating Cars and Motorcycles; Heavy Vehicle Inspection and Reconstruction; Commercial Vehicle Air Brake Systems; Digital Forensics & Heavy Vehicle Post-Crash Inspections; One full day of high speed crash testing; Collision Biomechanics & Injury Assessment; The Effects of Carry Distance, Take-Off Angles, Friction Values, and Horizontal Speed Loss Upon First Ground Contact in Pedestrian (Cyclist) crashes; Forensic Investigation into Injury & Death; Listening to Injuries – what they can tell us about accident reconstruction; The use of Speedometer Evidence in Collision Reconstruction; Motorcycle Collision Reconstruction; The Use of Video Analysis in Collision Reconstruction; One full day of interactive field testing; Sensing and Diagnostic Module Survivability; and Crash Testing review.

EDUCATION :

National Association of Professional Accident Reconstruction Specialists (NAPARS), Maryland Association of Traffic Accident Investigators (MATAI), National Association of Traffic Accident Reconstructionists and Investigators (NATARI), New Jersey Association of Accident Reconstructionists (NJAAR), New York Statewide Traffic Accident Reconstructionists (NYSTARS),

2015 Combined Conference on Motor Vehicle Collision Reconstruction
October, 2015, Ocean City, Maryland

Attended two days of a three day conference. Topics included “*Sometimes the Obvious isn’t so Obvious.*” – motorcycle crash investigation – mechanical defects; Field Crash Testing; Field Crash hand measurement techniques; Attorney Work Product Disclosure and Court Discovery; Crash Data Retrieval (CDR) Update.

New York Statewide Traffic Accident Reconstruction Society, Inc. (NYSTARS)

Modern Vehicle Infotainment and Telematics Data: Darin Hutchison
February 4, 2015, Yorktown Heights, NY

Data recorded in new vehicle entertainment and telematics systems that is stored and retrievable, including vehicle location, seatbelt use/status, door open/closed, cell phone use (including phone call initiation, receipt, duration, connecting party’s phone number, and text messages), average speed, radio use and entertainment center use.

New York Statewide Traffic Accident Reconstruction Society, Inc. (NYSTARS)

Forensic Video Analysis: Grant Fredericks
October, 2014, Albany, NY

Image Interpretation, Digital Video Examination, Recovery and Processing, Photographic Video Comparison, Image Enhancement, Motion Analysis, Speed Estimation, Height Comparison, Reverse Projection, Object Measurement, Color Correction, Forensic Video Synchronization, and Current Case Law.

National Association of Professional Accident Reconstruction Specialists (NAPARS), Maryland Association of Traffic Accident Investigators (MATAI), National Association of Traffic Accident Reconstructionists and Investigators (NATARI), New Jersey Association of Accident Reconstructionists (NJAAR), New York Statewide Traffic Accident Reconstructionists (NYSTARS),
Annual Joint Conference:

Crush Damage Energy
September 9-12, 2014 Portland, Maine

Crush Damage and Energy; Researching and Using Stiffness Values; Combining Crush Energy with a COLM Analysis; Use of Unmanned Aerial Vehicles (UAV) for Crash Scene Mapping; Evaluating Eyewitness Memory; Mobile Forensics – Recovery of Evidence from Mobile Device; Digital Forensics of Vehicle Infotainment Systems and Heavy Truck Electronic Control Modules (ECM); Crash Testing and results review.

EDUCATION :

Clearly Visible Presentations, LLC:

Motor Vehicle Headlamp Performance and Mapping
September 9, 2014 Portland, Maine

Attended a one-day (day and evening) seminar. Topics included physical properties of light; sensitivity of the human eye to light; basic principles of photometry; SAE Standard J1383 Headlamp Performance; Practical exercise during evening reviewing headlight mapping techniques.

Crash Data Specialists, LLC:

CDR System Operator, Analysis and Applications Update Class
May 20-22, 2014 Elmsford, New York

Updates to the CDR System Operators (Technician) class for all recent covered vehicles – including but not limited to BMW/Mini, Mazda, Mercedes, Volvo/Infinity, Nissan/Infinity, Suzuki, Honda/Acura, Toyota, Chrysler/Maserati/Fiat/Lancia, Ford, GM CDR supported vehicles. Kia/Hyundai EDR tools, Subaru EDR tools.

National Association of Professional Accident Reconstruction Specialists (NAPARS), Maryland Association of Traffic Accident Investigators (MATAI), National Association of Traffic Accident Reconstructionists and Investigators (NATARI), New Jersey Association of Accident Reconstructionists (NJAAAR), New York Statewide Traffic Accident Reconstructionists (NYSTARS), Annual Joint Conference:

Basic and Advanced Concepts Using Conservation of Linear Momentum
October 9 -12, 2013 Atlantic City, New Jersey

Accident Reconstruction for Cases Involving Injury; The Engineering of Human Injury Reconstruction; Basics of Momentum; DUI Drugs and Alcohol; Crash Avoidance Technology by Mercedes; Tire Composition; Coefficient of Friction Tires/Surfaces; Advanced Momentum concepts.

Rich Consulting, LLC:

Using Microsoft Excel for Traffic Crash Reconstruction:
August, 2013. Brunswick, ME

Introduction to Excel; Writing formulas in Excel; Statistics primer for Excel; Introduction to Uncertainty and Sensitivity; Basic Spreadsheets; Graphing with Excel; Finite Differences Spreadsheet; Monte Carlo Spreadsheet; Crash3 Spreadsheet; Stiffness Calculator Spreadsheet; If() Function; Option Buttons/Groups; User-defined Functions; Dialog Boxes; and Solving Simultaneous Equations with Excel.

EDUCATION :

Fleet Pro Seminars:

Air Brake ABS

June 26, 2013. Augusta, ME

Identifications of the different ABS manufacturers; how ABS systems work. Mounting and wiring the ABS system; How to trouble shoot the different components of each ABS system; Maintenance of the ABS system; How do vehicle maintenance procedures effect the ABS system; How to do a brake job on a vehicle with an ABS system; What happens when there is a failure of the ABS system; Electrical requirements of ABS; When to replace a component; Replacing an axle with ABS components.

Fleet Pro Seminars:

Air Brake Foundation

May 8, 2013. Augusta, ME

Air Brake Foundation Nomenclature; Brake Chamber to the wheel end components; How to achieve proper brake balance & torque; How to achieve proper balance and torque; Proper brake adjustment procedures; Automatic slack adjuster installation & troubleshooting.

Collision Forensics Solutions, LLC-West:

Forensic Laser Scanning with Leica C10 Basic Course; Processing Scan Data with Leica Cyclone Basic Course; MapScenes Point Cloud 2010:

February 25-March 1, 2013, Hampton, NH

Components; Targets, Scanner Setup; Target Setup; Scanning; Basic Scanning Work Flow-Free Station; Create New Project, Set Scan Parameters; Image Settings-Internal Camera; Set Scan Mode; and Downloading Scan Data from C10, Cyclone File Management; User Preferences; Workflow for Cyclone; Importing C10 Data into Cyclone; Tru-Space; Model Space; Cloud to Cloud Registration; Using Constraints Wizard; Registration Using Targets; Cropping the Point Cloud; Unifying the Point Cloud; Removing Traffic Noise from Scans; and Exporting Data from Cyclone.

National Association of Professional Accident Reconstruction Specialists (NAPARS), Maryland Association of Traffic Accident Investigators (MATAI), National Association of Traffic Accident Reconstructionists and Investigators (NATARI), New Jersey Association of Accident Reconstructionists (NJAAR), New York Statewide Traffic Accident Reconstructionists (NYSTARS), Annual Joint Conference:

Investigating Motorcycle Collisions

October 17-19, 2012. Fishkill, NY

Motorcycle Nomenclature, At-Scene Evidence, Motorcycle Evidence; Motorcycle v. Vehicle Crash Tests conducted by The Tulsa Consortium; Rider and Passenger Case Study; Review of IPTM Motorcycle Crash Tests; Acceleration/Stopping of 4 Wheel ATV's; Vehicle Operation v. Motorcycle Operation Human Factors Studies; Rotational Mechanics; and Analysis of The Tulsa Consortium Motorcycle Testing.

EDUCATION :

Accident Analysis & Reconstruction, Inc:

Crush Energy Analysis in Collision Reconstruction

June 18-22, 2012, West Goshen, Pa

Conservation of Momentum and Conservation of Energy; History of Crush; CDC Codes; Delta-v – Change in Velocity and Restitution; Averaging Crush Measurements; Stiffness Coefficients; Crush Measurement Protocol; Centroid of Damage; Principal Direction of Force; Calculating Change of Velocity from Crush; Calculating Crush Force; NHTSA Administration Database and Web Site; Alternative Method of Measuring Crush using Excel and a CAD program; Law of Sines and Cosines; Working with Delta-v – 360 degree Collision Example; Working with Delta-v – In-line Collision Example; Balancing Forces to Calculate Delta-v from Crush; and Crush Project.

Clearly Visible Presentations, LLC

Optics Lighting and Visibility for the Forensic Investigator

May 21-25, 2012, Somersworth, NH

The Physics of Light; Photometry (principles and units); Basic Optics: Reflection, Transmission, & Absorption; The Human Vision System; Light Sources (Including sun/moon) and influences; Atmospheric/Weather Influences; The Object (reflectance, color, motion, context, etc.); Retro-reflective Materials; Principles and Optics of Headlights; Photography & Videography; Documenting a scene at night; Low-Light Photography; Forensic Photography review.

Clearly Visible Presentations, LLC

Digital Photography for the Forensic Investigator

May 7-9, 2012, St. Paul, Minnesota

History of photography; Camera basics; Basics of photography; Capturing scene/evidence; Macro photography; Low Light photography; Using artificial light to illuminate the scene; Long exposures using existing light; Learn how to problem solve and troubleshoot photographs in the field.

The Institute of Police Technology and Management:

Inspection and Investigation of Commercial Vehicle Crashes

April 6 – 9, 2012, Scottsdale, Arizona

Unique characteristics of commercial motor vehicles and the special dynamics at play when one is involved in a collision; Detailed information of the nomenclature and operation of commercial motor vehicles; Post crash inspections; Topics Include: Tractor Trailer nomenclature; Brake systems: configuration and operation; Wheels, rims, and tires; Steering, suspension, and frames; Trailer coupling devices – fifth wheels; Log books; Center of mass determinations; Skid mark measurement and speed analysis; Jackknifing; hydroplaning; Rollover; Vehicle dynamics in braking; weight shifting

EDUCATION :

The ARC Network & Collision Safety Institute:

CDR User's Conference:

January, 2012, Houston, Texas

CDR: Past, Present and Future; SAE EDR Committee and NHTSA Part 563 Update; GM OE Update; Chrysler OE Update; Toyota Update and Comparison of Toyota ROT and CDR Data; A Comparison of Raw Data in ECU's versus Data Found, or Not Found in CDR Reports and Considerations of Possible Challenges to Investigator Integrity; Practical Methods to Accomplish Direct EEPROM Retrievals and Assessment of Information Patterns in that Data; Using Monte Carlo Method with Crash Event Data; Chip Swapping: Risk v Reward; The Ford PCM Restraint Deployment Signal: Expectations versus Reality; CDR Data From More Than One Car? Fitting it Together; Is a Search Warrant Required? Case Law review; Frye/Daubert and the Admission of Expert Testimony; CDR Admission and Expert Preparation; RCM and PCM Data Together; Re-powering 101.

National Association of Professional Accident Reconstruction Specialists (NAPARS), Maryland Association of Traffic Accident Investigators (MATAI), National Association of Traffic Accident Reconstructionists and Investigators (NATARI), New Jersey Association of Accident Reconstructionists (NJAAR), New York Statewide Traffic Accident Reconstructionists (NYSTARS),

Annual Joint Conference:

Pedestrian and Bicycle Reconstruction:

October 5-7, 2011, Harrisburg, PA

The anatomy and Analysis of a Typical Pedestrian or Bicycle Crash Event; Pedestrian Collision Testing Conducted by The Tulsa Consortium; Pedestrian and Cyclist Impacts – A Look at Injuries; 360-Momentum a Single Equation Approach; Overall Throw Distance Formulas on Low Friction Surfaces; and Analysis of Collision Test Results as it Relates to Pedestrian and Bicycle Collisions.

Crash Data Specialists, LLC:

Crash Data Retrieval (CDR) Analysis and Applications Course:

June 13-17, 2011, Stratham, NH

CDR: Terms and Conventions found in relation to CDR/EDR field; Airbag deployment decision-making basics; Crash Sensing and critical timelines; Crash Pulse recording methodologies currently used; Delta-V recording variations; Pre-crash data sources; Chrysler supported vehicle reports and recorded data from first coverage up to the most recent supported vehicles; Ford supported vehicle reports including ACM and PCM (power train control modules) data elements from beginning of Ford CDR coverage up to the latest ACM which now contain pre-crash data; Ford PCM data timing relating impact to "time 0" and restraint deployment signal (RDS) reception; General Motors CDR reports by generation including ROS (rollover sensor) data, Engineering Translation reports including the latest model year 2010/2011 ACM data and variants; Accuracy and Reliability as displayed through results of controlled testing from various sources; Case studies and in class assignments to tie CDR report analysis to crash investigation.

EDUCATION :

Accident Analysis & Reconstruction, Inc – Crash Data Specialists, LLC

Advanced Reconstruction with CDR Data

March 28 – April 1, 2011, Millersville, Maryland

Overview of Pre Crash Data Sources and Recorded Crash Pulse Data; Calculating Δv from Acceleration Data; Calculating Impulse Δv from x/y Δv Data; Calculating PDOF from x/y Δv Data; Adjusting x Axis Δv to Represent Impulse Δv ; Single Equation Approach to 360° Momentum Analysis; Calculating Impact & Post Impact Velocities from CDR Data (Δv & pdof); Reconciling Pre Crash and Post Crash CDR Data; Analyzing CDR Data in Context of Your Reconstruction

Accident Analysis & Reconstruction, Inc

Excel For Collision Reconstruction

February 7-11, 2011, Reading, Pennsylvania

Excel basics; Basic Functions and Writing Equations; Working with Ranges; Date and Time functions; Trigonometry functions; Conditional Formatting; Logical functions; Charts and Graphs; Goal Seeker and Solver; Database operations; Writing macros and Custom Functions; Developing Equations for Each specific Crash.

The Crash Lab, Inc. & Collision Safety Institute Bosch Preferred Course:

Crash Data Retrieval (CDR) System Technician Course:

February, 2011, Hampton, NH

Technicians are provided the basics of using the CDR system to image supported vehicles airbag control modules (ACM) with hands-on experience. Imaging the data via a Data Link Connector (DLC). When the DLC is not available then direct-to-module imaging and “back-powering” the vehicle to enable DLC imaging. Technicians provided the basics to secure the CDR file and the appropriate evidence to support the CDR file. The Technician Course is a prerequisite to the CDR analyst course, which involves interpreting the file data, Hampton, NH, **February 2011**

The ARC Network & Collision Safety Institute:

CDR User’s Conference:

January, 2011, Houston, Texas

CDR: Past, Present and Future; Evaluation of Torque Data Recorded by a Ford PCM; CDR: Insurance and Legal Issues; Three (03) Low Speed Crash Tests; CDR Data Momentum Solutions: Thinking Inside the Triangle; Case Studies including Toyota EDR Data; GPS Navigation Units Provide Recorded Data for Use in Accident Reconstruction; Preserving Heavy Truck ECM Files; Applying Heavy Vehicle EDR Data in the Real World; Crash Data Collection Guide for GM Airbag Electronic Control Units; CSV Pro 2011 Class; Chrysler Non-deployment Data: How to Identify it and what does it tell you; Crash Testing Data Review.

EDUCATION :

National Association of Professional Accident Reconstruction Specialists (NAPARS), Maryland Association of Traffic Accident Investigators (MATAI), National Association of Traffic Accident Reconstructionists and Investigators (NATARI), New Jersey Association of Accident Reconstructionists (NJAAR), New York Statewide Traffic Accident Reconstructionists (NYSTARS), Annual Joint Conference

Trailer Underride Collision Reconstruction

October, 2010, Ocean City, Maryland

Commercial Vehicle Conspicuity Systems; Sudden Acceleration Incidents; Low Light Forensic Photography; 4 Dynamic Test Crashes; Investigating Commercial Vehicle Conspicuity and Lighting; Human Factors in Nighttime Cases; Effectiveness of Vehicle Headlight Systems; Pictometry and New Applications for Imagery in Crash Reconstruction; Equation for Determining Underride Impact Speed; Introduction to Heavy Truck Rollover; EBS, dV, KEES, 1st Law of Thermodynamics; and Crash Test Review.

Pennsylvania State Police

Collision Reconstruction Seminar

September 28-30, 2010, State College, PA

Live crash testing and evaluation; Nighttime pedestrian crash case study; Current issues in EDR; Tire Dynamics, Elderly drivers; Bullet proofing your reconstruction; Current issues in pedestrian reconstruction; Sensitivity analysis; and Dark distance study data and analysis.

Institute of Police Technology and Management (IPTM)

Advanced Pedestrian/Bicycle Crash Investigation

June 8-12, 2009, Central Maine Commerce Center, Augusta, ME

Pedestrian/Cyclist collision dynamics; Projectile motion; Fall and slide; Injury analysis; Appel and Searle; PEDBIKE 2000 software; Pedestrian/cyclist formulas; Human factors; Bicyclist/cyclist crashes; and Field crashes.

MapScenes Systems

Advanced MapScenes 3D and Capture Animation Training Course

September 29-October 3, 2008, MicroSurvey Headquarters, West Bank, British Columbia

Understanding how coordinate systems work; Using two and three dimensional coordinates; Defining user coordinates; Drawing in three dimensions; Editing in three dimensions; Three dimensional modeling; Capture commands; Animation basics; and Creating animations.

EDUCATION :

Institute of Police Technology and Management (IPTM)

Traffic Crash Reconstruction Update

April 28-May 2, 2008, Central Maine Commerce Center, Augusta, ME

Geometry, trigonometry and selected mathematical topics; Dynamics and Newton's Laws of Motion; Skid analysis and testing; Critical speed yaw analysis; Time-distance analysis; Concepts in rotational mechanics; Pole and narrow object impacts; Conservation of linear momentum; Fundamentals of rollover crash reconstruction; Uniform projectile motion; and Airborne speed analysis.

Collision Safety Institute

Vetronix /Bosch Crash Data Retrieval Technician and Analyst Course

February 25-29, 2008, Fredericton, New Brunswick, Canada

Crash pulse data recording strategies; delta-v reporting strategies; Integral calculus applications for recorded crash pulse data; Airbag control module basics (components and functionality); Airbag deployment decision making basics; CDR System software function (hexadecimal data to plain language and CDR report format basics). Commonalities, Nuances, Data from testing to illustrate reliability from Chrysler, Ford, and General Motors airbag control modules.

Collision Forensic Solutions, LLC

Forensic Scene Investigators; MapScenes Evidence Recorder 4.0:

December, 2007, The Crash Lab, Inc., Hampton, NH

Forensic Mapping Introduction; CAD Concepts; Legal Issues; Setting Up a Total Station; Introduction to the Evidence Recorder; Measuring Basic Scenes with the Evidence Recorder; Downloading a scene to MapScenes; Downloading data to a New Scene; Automated Line Work Features of the Evidence Recorder; Measuring Scenes with Automated Line Work with the Evidence Recorder; Advance Features of Evidence Recorder; Measuring Scenes with Advanced Features of the Evidence Recorder; Collecting Baseline Offset and Draw a Room Data with the Evidence Recorder; Manual Collection of Baseline Offset and Draw a Room Data; Downloading the Scene with Baseline Offset Measurements, Vertical Scene Mapping with the Evidence Recorder; Measuring a Scene using Vertical Scene Mapping Features; Moving the Total Station; Measuring a Scene Requiring a Station Change with the Evidence Recorder; Re-Occupying Using the Re-Section Feature; Measuring a Scene Requiring a Station Change Using the Re-Section; Measuring a Scene Requiring Station Changes, Lines, Descriptions, Remote Elevations, VSM, Resection; and the Measuring of Vehicle Crush.



EDUCATION :

National Institute for Safety Research/Federal Motor Carrier Safety Administration (FMSCA)
Crash Data Collection for Commercial Motor Vehicles

August 7, 2007, Central Maine Commerce Center, Augusta, ME

Defining an FMSCA reportable crash; Motor Carrier identification and commercial driver licenses; Gross Vehicle Weight Rating (GVWR); Vehicle configuration and cargo body type; Hazardous materials Crash events; and Harmful events/Sequence of events.

Mechanical Forensics Engineering Services, LLC

Advanced Motorcycle Reconstruction Course

June 25-29, 2007, Central Maine Commerce Center, Augusta, ME

Motorcycle types and components; Conclusions of the Hurt Report; Friction and statistics; Motorcycles sliding on their sides; Motorcycles skid test data; Steering and braking; Motorcycle speed estimates; Motorcycle dynamic instabilities; Motorcycle highsides, Motorcycle inspections; Crush energy equations; Airborne and vaults; and Searle rider trajectories.

Maine State Police Traffic Division

Maine Certified Inspection Mechanic License Renewal

July 2007, Augusta, ME

Command Institute for Law Enforcement Executives

FBI Law Enforcement Executive Development Association

June 26-30, 2006, Marriot Conference Center, Portland, ME

Principles of command and leadership for law enforcement executives.

Maine State Police & National Association of Professional Accident Reconstruction Specialists, Inc., (NAPARS)

Commercial Vehicles; Nomenclature-Braking-Rollovers-Dynamics-ECMs-Dynamic Testing

May, 2006, Augusta, ME

Mechanical Nomenclature; Hands-on Workings and Identification of Nomenclature; Commercial Vehicle Brakes; What to Look for & What to Obtain; Rollovers; The Mechanics of Basic Roll Stability; Dynamic Considerations in Rollover of Heavy Vehicles; Rollover and Electronic Stability Enhancements; Terminology; Basic Mechanics of Pneumatic Tires; Simplified Handling Analysis; Maintenance and its Relationship to Braking Performance; Downhill Braking and Energy Considerations; Brake Force Balance and why it's so important, even with ABS; ATC and ECS-What it is and how it works; Tractor and Trailer Brake System Compatibility; NHTSA and FMCSA Regulations; Modifying Brake Systems and what could go wrong; New Developments in Brake Inspection & Diagnostic Equipment; ECMs; Test Skidding; and Student Driving of Heavy Commercial Articulated Vehicles.

EDUCATION :

Collision Safety Institute

Vetronix Crash Data Retrieval System Technician and Analyst Course

January 23-26, 2006, Massachusetts State Police Training Academy, New Braintree, MA
Coverage through CDR system version 2.8; Crash pulse data recording strategies; delta-v reporting strategies; Integral calculus applications for recorded crash pulse data; Airbag control module basics (components and functionality); Airbag deployment decision making basics, CDR System software function (hexadecimal data to plain language and CDR report format basics); Commonalities, Nuances, and Data from testing to illustrate reliability from Ford and General Motors airbag control modules.

MicroSurvey Software Inc./Sokkia Co. Ltd.

MapScenes Systems Technical Training for Instructors

July, 2005, Olathe, KS

Instructor and lesson plan development in the use of MapScenes CAD software. Advanced techniques in MapScenes CAD.

Jackson Hole Scientific Investigators and Traffic Safety Group

Damage and Energy Methods in Traffic Crash Reconstruction

June 20-24, 2005 Biddeford Police Department, Biddeford, ME

Energy concepts and analysis; Determining appropriate post-impact drag factors; Understanding Equivalent Barrier Speed (EBS) and delta-v; Conservation of linear momentum and delta-v vectors; Introduction to Hooke's Law; Collision analysis using damage momentum; Understanding and determining stiffness coefficients; Damage collision analysis; Using simultaneous equations to solve in-line collisions; Crush measurement protocol; and Pole impacts and fracture energy.

Maine Criminal Justice Academy

Advanced Instructional Design

May 31-June 1, 2005, Maine Criminal Justice Academy, Vassalboro, ME

Advanced techniques in instructional goals and lesson plan development and Classroom instruction techniques. Institute of Police Technology and Management (IPTM)

Applied Physics for Traffic Crash Investigation

August 23-27, 2004, Fredericton, New Brunswick

Vectors; Newton's Laws of Motion; Work energy and power; Rectilinear motion; Torque; Rotational mechanics; Conservation of linear momentum (COLM); COLM vector analysis; Crash dynamics-vehicles; Crash dynamics-occupants; Uniform circular motion; Uniform projectile motion; and Tire forces.

EDUCATION :

Institute of Police Technology and Management (IPTM)

CDR Toolkit User Certification

October 2-4, 2002, Massachusetts State Police Training Academy, New Braintree, MA
CDR system components; What kind and how is data recorded; Methods and tools for recovering the data;
Near deployment events; What gets recorded; and Practical download exercises.

Vericom Computers, Inc. & Maine State Police:

Vericom VC3000 Performance Testing Computer

June, 2002, Vassalboro, ME

Braking Test Computer; Data Acquisition System; and On Board Dynamometer.

MCJ & Associates

MapScenes Certification Training

April 29 - May 3, 2002, Maine Criminal Justice Academy, Vassalboro, ME

Forensic scene investigation using MicroSurvey's MapScenes CAD software program.

Federal Emergency Management Agency/Emergency Management Institute

Basic (IS-195) and Intermediate (G-195) Incident Command System

March 20 & 22, 2002

Introduction to the Incident Command System for Law Enforcement, introduces the Incident Command System (ICS) and provides the foundation for higher level ICS training. This course describes the history, features, principles, and organizational structure of ICS. It also explains the relationship between ICS and the National Incident Management System (NIMS). This course uses the same objectives and content as other ICS courses with law enforcement examples and exercises.

Institute of Police Technology and Management (IPTM)

Traffic Crash Reconstruction Course

October 29-November 9, 2001, Maine Criminal Justice Academy, Vassalboro, ME

Derivation and origin of the commonly used speed formulas; Speed of vehicles at impact using conservation of linear momentum; Behavior of vehicles in a collision using Newton's three laws of motion; Discussions of commercial vehicle and motorcycle dynamics in collisions; and Determination of direction of travel, initial contact and position of vehicles on the roadway.

EDUCATION :

Institute of Police Technology and Management (IPTM)

Pedestrian/Bicycle Crash Investigation Course

August 20-24, 2001, Fredericton, New Brunswick

Pedestrian crash problems; Pedestrian impact dynamics; Types of data: objective, subjective and performance; Collection of data; Pedestrian conspicuity; Reaction time/human factors; Reconstruction techniques; Bicycle collision analysis; and Hit and run investigation techniques.

Institute of Police Technology and Management (IPTM)

Advanced Crash Investigation Course

April 16-27, 2001, Maine Criminal Justice Academy, Vassalboro, ME

Speed estimates from kinetic energy; Skid marks, scuffmarks and airborne situations; Vehicle dynamics and motion; Time, distance, and motion equations; Conservation of momentum equations; Center of mass calculation; Vehicle lamp examination; Tire damage evaluation; and Vector sum analysis.

NCO Academy

New England State Police Administrators' Conference

October 16-27, 2000, 195th Regiment (RTI) - Center Strafford, NH.

Principals of leadership and Incident command Systems.

Impact International Reconstruction Conference on Traffic Collision Analysis and Reconstruction

May 23-25, 2000, Saint John Campus of the New Brunswick Community College, St. John New Brunswick

Motorcycle reconstruction; Commercial vehicle under ride crash investigation; and electronic drag factor devices.

Maine State Police

Vehicle Autopsy Program

February 21-24, 2000, Oxford Hills Comprehensive High School, South Paris, ME

Vehicle braking, steering and suspension systems; Suspension types; Affects of improper alignment; Suspension failures; Steering failures; Aftermarket products; Brake failures; and Determining if failure contributed to crash or crash contributed to failure.

Royal Canadian Mounted Police

Advanced Collision Diagramming Course

March 20-24, 2000, Royal Canadian Mounted Police "J" division Headquarters, Fredericton, New Brunswick

Scale diagramming using Autosketch 2.1 CAD software.

EDUCATION :

Impact 1999 International Reconstruction Conference

September 1999, St. John, New Brunswick

Pedestrian reconstruction techniques; CDR technology; and The use of Photomodeler to document crash scenes.

Royal Canadian Mounted Police

Uniform Projectile Motion Seminar

October 1998, Woodstock, New Brunswick

Calculating speed from fall and vaults.

Maine State Police Peter Kotowski

Commercial Vehicle Braking Dynamics Course and Testing

October 1997, Maine State Police Crime Lab, Augusta, ME

Components of commercial vehicle brake systems; Principles of air braked systems; Calculating braking force on commercial motor vehicles; Determining weights at each axle by mathematically positioning the load weight; and Live commercial vehicle skid testing.

MJC & Associates

Forensic Mapping Techniques

December 15-19, 1997, Maine State Police Traffic Division, Gardiner, ME

Crash and Crime scene investigation using a Sokkia electronic theodolite, data collector and MAP software; Measuring protocol; Measuring precise locations of evidence points on horizontal and vertical planes; Moving the RP point to several locations; Documenting vehicle crush patterns; and Creating scale diagrams in CAD software.

Michelin Tire Company

Michelin Tire Dynamics Course

June 20, 1997, Massachusetts State Police Training Academy, New Braintree, MA

How to read a tire; Tire nomenclature; Manufacturing process and construction of a tire; Radial and bias ply tires; Types of rims; Truck tires; Passenger car tires; How to inspect a wheel; Common damages; Tire failures; and Damage analysis.

Maine State Police Traffic Division

Certified Maine Vehicle Inspection License

July 1996, Augusta, ME

Review and testing for the Maine Motor Vehicle Inspection Standards.



EDUCATION :

Emergency Vehicle Operations Instructor Course

New England State Police Administrators' Conference

May 1996, Massachusetts State Police Training Academy/Fort Devens Air Force Base

Royal Canadian Mounted Police

Autosketch for Windows Training

September 1995, Cross Building, Augusta, ME

Fundamentals of diagramming using Autosketch 2.1; Creating evidence points using hand measurements; Importing dwg files; Creating symbols; and Creating a finished scale diagram.

MJC & Associates

Forensic Mapping System Training

June 1995, Maine State Police Traffic Division, Gardiner, ME

Setup and use of Sokkia Set 5 total station; Shooting evidence points using the Sokkia total station and a Sokkia SDR 33 data collector; Downloading raw data from the SDR 33 to MAP software; Transferring a dwg file from MAP software to Autosketch CAD software; and Creating a scale diagram from evidence points in Autosketch.

Central Maine Community College

Vehicle Autopsy/Post Crash Inspection Course

1994, Central Maine Community College, Auburn, ME

Vehicle braking, steering and suspension systems; Suspension types; Affects of improper alignment; Suspension failures; Steering failures; Aftermarket products; Brake failures; and Determining if failure contributed to crash or crash contributed to failure.

Maine Criminal Justice Academy

Maine Reconstruction Unit In-Service Training

May 27, 1993, Waterville, ME

General review of reconstruction techniques and live skid testing.

Maine Criminal Justice Academy

Maine Reconstruction Unit In-Service Training

October 1990, Waterville, ME

General review of reconstruction techniques.

Massachusetts State Police

Traffic Crash Reconstruction Course



EDUCATION :

November 6-17, 1989, Maine Criminal Justice Academy, Waterville, ME

Derivation and origin of the commonly used speed formulas; Speed of vehicles at impact using conservation of linear momentum; Behavior of vehicles in a collision using Newton's three laws of motion; Discussions of commercial vehicle and motorcycle dynamics in collisions; and Determination of direction of travel, initial contact and position of vehicles on the roadway.

Massachusetts State Police

Advanced Traffic Crash Reconstruction Course

October 23 – 27, 1989, Maine Criminal Justice Academy, Waterville, ME

Speed estimates from kinetic energy; Skidmarks, scuffmarks and airborne situations; Vehicle dynamics and motion; Time, distance, and motion equations; Conservation of momentum equations; Center of mass calculation; Vehicle lamp examination; Tire damage evaluation; and Vector sum analysis.

Maine Criminal Justice Academy

Methods of Instruction Course

January 9-13, 1989, Waterville, ME

Writing instructional objectives; Choosing and preparing visual aids; Creating an original lesson plan; Teaching the adult learner; Preparing tests; and using the Academy's Media Resource Center. Participants are required to make several presentations ranging from 2 to 30 minutes in duration. Students will develop a full lesson plan as a prerequisite to completing the course.

Institute of Police Technology and Management (IPTM)

At-Scene Traffic Investigation Course

August 24-September 4, 1987, Maine Criminal Justice Academy, Waterville, ME

Physical evidence from the roadway; Physical evidence from the vehicle; The human element and occupant kinematics; Mathematical principles and equations; Skid marks and vehicle speeds; Crash scene photography; Traffic templates; Measuring and scale diagramming; Driver and witness interviews; and Information analysis and case preparation.

Maine Criminal Justice Academy

39th Maine State Police Academy

January 6 - May 9, 1986, Waterville, ME

Unity College

Bachelor of Science, Environmental Science

August 1979 - May 1986

RICHARD A. McALISTER
Accredited Reconstructionist
The Crash Lab, Inc.

Post Office Box 850
Hampton, N.H. 03843-0850
(603) 926-0624 - FAX: (603) 929-0744
e-mail: rick@thecrashlab.com
www.TheCrashLab.com

EDUCATION :

Oxford High School
Diploma
June 1979

ACHIEVEMENTS:

Award for excellence in Traffic Crash Reporting Systems

Traffic Safety Analysis Systems & Services, Inc. (TSASS) Best Practice Award for Electronic Crash Data Systems. 27th International Forum on Traffic Records & Highway Information Systems, July 28, 2001 - August 3, 2001 New Orleans, LA

Team member developing and training with Maine's first statewide Electronic Crash Reporting System.

Governor's Teamwork Award

Presented by Angus King, Governor, State of Maine, September 16, 1999, Augusta, Maine, in recognition for a successful team effort improving services for the citizens of Maine with the Maine Crash Reporting System (MCRS).

Governors Teamwork Award

Presented by Angus King, Governor, State of Maine, September 18, 1997, Augusta, Maine, in recognition for a successful team effort improving services for the citizens of Maine by developing a Commercial Vehicle Accident Response Planning Team.

Special Award of Commendation

Presented by Alfred Skolfield, Colonel of the Maine State Police, May 10, 1996 Augusta, Maine, for Outstanding Contribution and Grateful Appreciation from the Maine State Police and the Citizens of Maine.