

Kenna Marie Johnston

EDUCATION:

Collision Forensic Solutions, LLC:

Forensic Scene Investigators; MapScenes Evidence Recorder 4.0: 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 Life 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; Hampton, NH, December, 2007

Society of Automotive Engineers (SAE) International:

Highway Vehicle Event Data Recorder Symposium: Regulatory Status Part 563; State EDR Laws/ Legal Issues; Interating the Capture of EDR Data into a National In-depth Collision Investigation Program; 15 Years' Experience of Crash Recorders in Sweden; SAE HVEDR SC J2728; ISO TC 12/WG7 & SAE VEDI J1698; VERONICA Project, Ralf-Roland Schmidt-Cotta, Siemens AG, Siemens VDO Automotive; Practical Application of EDR Data and Data Validity; The Use of Scan Tools to Augment EDR Data; Using EDR Data to Understand the Operation of Advanced Air Bags; Data Validity; Even-triggered Video Recording for the Technology Assessment; Event Data Recording: View from the Insurance Industry; The Use of Vehicle Telematics to Assess Criteria Consistent with Severe Injury; The NHTSA NASS EDR Database; Applied Uses of Commercial Truck EDR Data; Using EDR in Crash Reconstruction to Better Understand Injuries from a Biomechanics Standpoint; EDR Applications: Motor Carriers of Passengers & Private Truck Fleet; General Motors EDR Data; Current Ford EDRs: Available Data and Data Access; Overview of Toyota's Latest EDR; Ashburn, VA, September, 2007

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EDUCATION:

Mechanical Forensics Engineering Services, LLC, The Maine State Police & The Maine Bureau of Highway Safety:

Advanced Motorcycle Crash Reconstruction: Nomenclature; Motorcycle Types; VIN Decoding; Hurt Report; Hurt Findings; Motorcycle Technology 1980's and Today; Friction and Statistics; Skidding Friction; Motorcycles Sliding on Their Side; Motorcycle Slide to Stop Tests, IPTM Data; Summary of Motorcycle Friction Tests; Steering and Braking; Motorcycle Speed Estimates; Dynamic Instabilities; Highside Dynamics; Investigations-Interviews and Inspections; Motorcycle and Recreational Vehicle Safety; Motorcycle Post-Accident Inspection Techniques; Energy Considerations; Crush Energy; Airborne/Vaults; Rider Trajectories; Throw Distance; Vault Distance and Speed; Conservation of Linear Momentum and Vector Diagrams; and Drag Sleds and Vehicle Skidding; Augusta, ME, June, 2007

The ARC Network & Collision Safety Institute:

Four (04) Dynamic Crash Tests; Hit and Run Evidence; Smart Drive System Crash Data; Investigating Snowmobile Crashes; Seat Belts; Mechanism of Air Bag Injuries; Traffic Reconstruction at Traffic Signal Intersections; European Reconstruction Techniques; Human Factors beyond PRT; Investigating Nighttime Pedestrian Collisions; Reprogrammed PCMs and Crash Analysis; Angular Velocity Analysis of SUV Collisions using PC Crash; The Effects of Sample Rates and Averaging Methods on Accelerometer Based Skid Tests in Accident Reconstruction; Review of Low Speed Crash Tests and the Effect of Restitution; Crash Test Data Review and Analysis; Las Vegas, NV, June, 2007

Collision Safety Institute:

Crash Data Retrieval (CDR) Data Analyst Certification Course: General Legal Considerations; Terms and Conventions; Airbag Control Algorithm; Reading a CDR report for a GM vehicle; Reading a CDR report for a Ford vehicle; Admissibility Issues; Roanoke, VA, May, 2007

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

Investigating Bicycle Collisions: Nomenclature; Scene Documentation; Examination of Bicycle; Rules of Operation; and Velocities; Yorktown, NY, April, 2007

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EDUCATION:

The ARC Network & Collision Safety Institute:

CDR User's Conference: The Future of the CDR System; GM Vehicles: When non-deployments are saved or not saved, and the GM Logic; The Accuracy of General Motors Event Data Recorders in NHTSA Frontal Barrier Tests; Detailed Evaluation of Vehicle Speed and Speed Recorded by an SDM; Average Daily Ignition Cycles in SDM-Equipped GM vehicles; Two-dimensional analyses of EDR information; New Vetronix Releases of Ford Event Data Recorders; When do Airbags Deploy?; Final NHSTA Ruling and its Implications; Survivability Aspects of the 563 Rule; Using Diagnostic Tools with the Crash Data Retrieval System; Houston, TX, January, 2007

Northwestern University Center for Public Safety:

Pedestrian Vehicle Traffic Collisions: Introduction to Vehicle Pedestrian Collisions; Vehicle Pedestrian Collision Velocity Problems; Vehicle Pedestrian Accident Reconstruction; Pedestrian Injuries; Forensic Aspects of Vision; Car vs. Pedestrian Case Study; Bus vs. Pedestrian Case Study; Pedestrian Velocity Field Testing; Pedestrian Drag Factor Field Testing; Nighttime Visibility Field Testing; Evanston, IL, November 2006

Texas Association of Accident Reconstruction Specialists, (TAARS), National Association of Professional Accident Reconstruction Specialists, (NAPARS) & 12 Other Participating Accident Reconstruction Organizations:

F3T2 Conference: Dynamic vehicle to vehicle crash testing; Dynamic Truck-Tractor and Semi-Trailer Deceleration Testing; Experimental Program to Study the Tire-Road Friction Related to Drag Sleds; Critical Speed Yaw Testing; "Human Error, but Which Human and Whose Error?"; Perception and Reaction; Applicability of Crush Analysis Formulas; Computer Simulations; Nighttime Perception and Reaction Times; Commercial Event Data Recorders; Nighttime Visibility Studies and Digital Photography; and Highway Sightlines for Accident Reconstruction; Houston, TX, September, 2006

The ARC Network & Collision Safety Institute:

Ten (10) Dynamic Crash Tests; Lower Extremity Injuries; Tire Marks; Aerial Photo Analysis; Rollovers; Curb Strikes; Motorcycles; CDR Legal Issues; Simulations; Friction Applications; Momentum With Secondary Contacts; PDOF; and Crash Test Data Review and Analysis; Las Vegas, NV, June, 2006

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EDUCATION:

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

Commercial Vehicles; Nomenclature-Braking-Rollovers-Dynamics-ECM's-Dynamic Testing: 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; ECM's; Test Skidding; and Student Driving of Heavy Commercial Articulated Vehicle; Augusta, ME, May 2006

Society of Automotive Engineers (SAE) Seminar:

Occupant and Vehicle Kinematics in Rollovers: Overview of Field Rollover Crashes; Real World Studies; Seatbelt and Ejection; Cars vs. LTV; Rollover Types; Occupant Biomechanics and Occupant Kinematics; The Roof Crush Phenomenon; Far vs. Near Side Kinematics; Maneuvers Leading to a Rollover; J-Turn; Fishhook; Other Pre-rollover Maneuvers; Laboratory Tests and Vehicle Data; Tripping Conditions; Fallovers; SAE J2112 Dolly Rollover; ADAC Corkscrew; Field Relevancy of Laboratory Tests; Electronics and Sensing; Rollover Sensing System Overview; Rollover Components; Rollover Arming; Rollover Architecture; Sensor Selection; Rollover Algorithm; Rollover Safety Systems; Seatbelt; Curtain; Rollover Modeling; PC-Crash; and MADYMO; Detroit, MI, April 2006

Society of Automotive Engineers (SAE) 2006 World Congress:

Presentation, Questions, Answers of 2006 SAE papers, Detroit, MI, April 2006

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

Seminar:

Critical Speed Yaw Analysis; Critical Speed Yaw Calculations; Critical Speed Studies-The Accuracy of Speeds Calculated from Critical Curve Marks and Their Striations; Tire Marks and ESP; and Friction Tests on Contaminated Road Surfaces; Yorktown Heights, NY, March 2006

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EDUCATION:

Collision Safety Institute:

Technician Course Train-the-Trainer Course: What is a CDR; Process Overview; Function Overview; System Overview; The Mechanics of a Download; CDR System Software Operations; Troubleshooting the CDR Software; System Output; Legal Considerations; and, Data Harvesting; Dallas, TX, February, 2006

The ARC Network & Collision Safety Institute:

CDR User's Conference: Vetronix CDR System Update; Incorporating CDR Services in an Existing Forensic Practice; Implementing Policy for Crash Data Retrieval; CDR as a Tool for Intelligent Transportation Systems and Human Factors Issues; A Review of Various ACM Types and Data Recorded; Analysis of the GM Sensing and Diagnostic Module in 360° Linear Momentum Collisions: Real Case Analysis; CDR Data Presentation and Validation in Legal Proceedings; A Comparison of ACMs to Flight Data Recorders: The 'Black Box' Misperception; Investigation into the Durability of ACMs; Quantifying Uncertainties in Ford and GM EDRs; The Accuracy of Speed Recorded by an SDM and the Effects of Brake and Yaw Events; Overview of New GM Modules using CAN Bus Technology; and, Practical Applications for CDR gathered CAN Bus Data; Dallas, TX, February, 2006

Jackson Hole Scientific Investigations & Traffic Safety Group:

Damage Analysis and Energy Methods in Traffic Crash Reconstruction: Selected Mathematical Topics; Energy Concepts & Analysis; Determining Appropriate Post-Impact Drag Factors; Understanding EBS & ΔV ; Conservation of Linear Momentum and ΔV Vectors; Introduction to Crush & Hooke's Law; Collision Analysis Using Damage Momentum; Understanding & Determining Stiffness Coefficients; Damage (Crush) Collision Analysis; Using Simultaneous Equations to Solve In-Line Collisions; Crash Measuring Protocol & Measuring Techniques; Outdoor Project-Damage Analysis & Measuring; and, Pole Impacts & Fracture Energy; Biddeford, ME, June, 2005

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

Seminar:

Perception/Reaction Basics; Driver Decision Making; Driver Response Time Research; Estimating Driver Response at Night; Documenting Lighting; and Response to Traffic Signals, Yorktown Heights, NY, March, 2005

Canadian Association of Technical Accident Investigators and Reconstructionists

(CATAIR) Conference: Post-Impact Trajectory Analysis; Occupant Loading Witness Marks on Seat Belt Assemblies & Child Restraint Systems; Real World Instability of Heavy Trucks; Railroad Collisions, Automotive and Pedestrian; When Science Knocks and Judges Answer the Door; Fredericton, New Brunswick, Canada, August, 2004

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EDUCATION:

University of North Florida, Institute of Police Technology & Management (IPTM):

Applied Physics for Traffic Crash Investigators: Math Overview; Vectors; Newton's Laws of Motion and Concepts of Weight and Friction; Work Energy and Power; Rectilinear Motion; Torque; Rotational Mechanics; Conservation of Linear Momentum; Conservation of Linear Momentum, Vector Analysis; Crash Dynamics, Vehicle and Occupants; Uniform Circular Motion; Uniform Projectile Motion; Tire Forces; Fredericton, New Brunswick, Canada, August, 2004

The ARC Network & Collision Safety Institute:

Crash Testing; Commercial Vehicle Skid Testing; Crash Testing, a Historical Perspective; CDR System Update; Legal Implications of CDR Data Retrieval and Use; Crush Measuring Protocol; Evaluating and Using Crash Test Data; Commercial Vehicle Event Data Recorders (EDR) Systems; Restraint Evaluation for Collision Analysis; Field Measurements; HVE Applications, Crash Test Simulation; Momentum and CDR Output; Field Data Review; Las Vegas, NV, June, 2004

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

Three-Point Airborne Analysis; Pedestrian Collisions; and Pole Impacts, Yorktown Heights, NY, February, 2004

Collision Safety Institute:

Crash Data Retrieval System, Operator's Certification Course, GM, FORD, Isuzu, Saturn: Why Automotive Crash Data is Collected; Where the Data Comes From in the Car; What Type of Data is Collected; How to Collect Data; Mechanics of a download; and, What the Data Means (Data Interpretation); Chicago, IL, January, 2004

The ARC Network & Collision Safety Institute:

Airborne & Crash Testing; Reconstructing Airborne Events-Analysis & Modeling; Commercial Vehicle Event Data Recorders (EDR); Crush; From Scene to Courtroom; NHSTA Crash Data, Problems in Obtaining and Using; Collision Trauma Biomechanics; "Low Speed" Collisions, Analysis & Biomechanics; New Version CDR System. Selected Issues, GM & Ford; and, Field Data Review; Las Vegas, NV, June, 2003

Northwestern University Center for Public Safety:

Traffic Accident Reconstruction 2: Motorcycles Trigonometry for Accident Reconstruction; Conservation of Momentum; Occupant Motion; Pedestrian Accidents; Motorcycle Case Study; Car vs. Truck Case Study; Car vs. Pedestrian Case Study; Single Vehicle Case Study; Evanston, IL, April 2003

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EDUCATION:

Northwestern University Center for Public Safety:

Traffic Accident Reconstruction 1: Driving Strategy & Tactics; Mechanics; Gear Position and Speed; Vehicle Behavior in Collisions; Articulated Vehicles; Conservation of Momentum; Energy; Opposite Direction Case Study; Railroad-Car Case Study; Semi Tractor/Trailer vs. Car Case Study; Same Direction Case Study; Single Car Case Study; Chevrolet vs. Pontiac Case Study; Single Tractor/Trailer Case Study; Truck vs. Semi-Tractor Case Study; Evanston, IL, April 2003

Northwestern University Center for Public Safety:

Accident Investigation 2: Nighttime Photography; Tire Examination; Vehicle Damage; Collision Deformation Classification; Measurements and Behavior in Collisions; Lamp Examination; Information from Roads; Photogrammetry; Thrust Diagramming Exercises; Vehicle Damage Summary Field Project; Project; Boone County, Indiana Collision Reconstruction Project; Evanston, IL, March, 2003

Northwestern University Center for Public Safety:

Accident Investigation 1: Traffic Accident Information From and About People; Photography for Traffic Accident Investigation; Traffic Accident Information from Roads; Traffic Accident Information from Vehicles; Measuring at the Scenes of Traffic Accidents and Drawing After-accident Situation Maps; Simple Estimates of Vehicle Stopping Distances and Speed from Skid Marks; At-scene Measurements Projects; Vehicle and Photography Field Project; Site measuring Field Project; Evanston, IL, March, 2003

Accident Analysis & Reconstruction, Inc., & Fairfax County Criminal Justice Academy:

EXCEL for the Accident Reconstructionist: Basic and Advanced Spreadsheet Operations; Formatting Cells; Text & Numbers; Working with Borders and Cell Shading; Conditional Formatting; Naming Cells and Constants; Working with Name in Functions; Writing MACROS and Custom Functions; Conditional Functions; Database Operations; and Charting & Graphing; Chantilly, VA, February, 2003

Maine Bar Association/Maine Trial Lawyers Association:

Anatomy of a Car Accident; Low Speed, Low Damage, Low Verdict (?); Portland, ME, January, 2003

Northwestern University Center for Public Safety:

Vehicle Dynamics: Dynamics; Energy; Momentum; Speed Estimates from Irregular Skid Marks; Uniformly Accelerated Motion; Co-efficient of Friction; Acceleration/Deceleration Values; Time/Distance; Evanston, IL, October, 2002

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EDUCATION:

University of North Florida, Institute of Police Technology & Management (IPTM):

Motorcycle Crash Investigation: Motorcycle Identification; Motorcycle Geometry fundamentals; Turning Crash Analysis; Straight Line Crash Analysis; Evidence from the Roadway; Vehicle Evidence; Motorcycle Tire Analysis; Operator and Human Factor Information; Friction and Uniform Motion; Field Testing; Intersection Crash Analysis; Motorcycle vs. Vehicle Crash; Helmets and Safety Equipment; Fredericton, New Brunswick, Canada, September, 2002

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:

Highways: MUTCD; Pavement Design; Child Restraints-Determining Proper Use; Curve Collisions; Nighttime Photography; Recommended Procedures for Safety Performance Evaluation of Highway Features; Railroad Crossings; Highway Sight Distance; Highway Perception of the Intoxicated Driver; Design Immunity; and Intersection Sight Distance; Wilmington, DE, October 2005

Rollovers: Field testing of rollovers, airborne speed, and vehicle to vehicle impacts; Criminal Litigation in Accident Reconstruction; DNA in Accident Reconstruction; EXCEL and Spreadsheets for Accident Reconstruction; Electronic Crash Data Records (EDR) Update; Test Data and Damage Analysis; and NHSTA Early Warning Reporting Regulations; Ocean City, MD, October 2004

Pole/Tree Impacts: Sylvania-Osram, New Vehicle Lighting Technology; Pole Impacts; Pole Crash Testing; Digital Photography (Technical); Mercedes-Benz New Car Technology; Impact Factors Influencing Pattern of Injury; *Frye* and *Daubert* Decisions; Digital Photography (Legal); Biomechanics; and Test Data and Damage Analysis, Atlantic City, NJ, October 2003

Introduction to Event Data Recorders and Crush Documentation & Analysis: Crush Documentation & Analysis; Future of Occupant Safety Systems; Engine Control Module Overview; Crash Testing; Bus Skid Testing; Crush Measurement Protocol; Real World Experience with EDR/CDR Technology; Ocean City, MD, September, 2002

Vericom Computers, Inc. & Maine State Police:

Vericom VC 3000 Performance Testing Computer: Braking Test Computer; Data Acquisition System, On-board Dynamometer; Vassalboro, ME, June, 2002

The University of Akron: Akron, OH, May 2002

B.S. Degree, Mechanical Engineering Technology, Cum Laude

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EDUCATION:

The University of Akron: Akron, OH, May 1999

A.S. Degree, Mechanical Engineering Technology, With Distinction