Traffic Accident Reconstruction and Analysis Full Accreditation Since 1998 (ACTAR)

726 E. Main Street
Suite F # 183
Lebanon, Ohio 45036
Email: tmcrash804@gmail.com

Phone: (937) 218-6314

ACCIDENT RECONSTRUCTION CURRICULUM VITAE

Terry W. McClanahan, ACTAR

Principal Accident Reconstructionist

PROFESSIONAL SUMMARY

My accident investigation experience has involved approximately 200 or more fatal accidents. Approximately 3,000 injury & non-injury accidents and approximately 500 reconstructions. I have approximately 31 years of experience in the field of accident reconstruction. I have received approximately 2000 hours of specialized/technical training courses or technical seminars. I am a fully accredited accident reconstructionist (ACTAR) since 1998 and have renewed my accreditation in 2003, 2008, 2013, 2018, 2023 through 2028. I have handled accidents that have occurred in the State of Ohio, West Virginia, Tennessee, Michigan, Kentucky, Florida, Georgia, New Jersey, North Carolina, Indiana.

I have previously been an adjunct instructor for the State of Ohio (Ohio Peace Officer's Training Academy – Office of the Ohio Attorney General) in Collision Investigation (Level - 1), Advanced Collision Investigation (Level - 2), Vehicle Dynamics (Level - 3), Collision Reconstruction (Level - 4), Advanced Collision Reconstruction (*Quadratic Equations, Simultaneous Equations, Rotational Mechanics, Speed from Trailer Under-Ride*), Investigation and Reconstruction of Pedestrian & Bicycle Collisions, Crush & Energy Analysis, etc.

Some of the types of analysis performed include but not limited to: rollovers, airbornes, intersection impacts, sight obstructions, airbag control module data imaging & analysis, crush damage/energy, rotational mechanics, conservation of linear momentum analysis, left of center, planar impact analysis, velocity-time-distance analysis, occupant kinematics.

PROFESSIONAL CRASH RECONSTRUCTION EXPERIENCE

2009 - Present:	 T-M Accident Reconstruction, LLC Principal Accident Reconstructionist
2008 - 2015:	Butler County Sheriff's Office Crash Reconstruction Unit / Investigations Division Specialist/Deputy Sheriff
2007 - 2020:	Ohio Peace Officer's Training Academy Adjunct Instructor – Crash Reconstruction Topics
2006 - 2008:	 Introtech Crash Reconstruction Services Crash Reconstructionist / Consultant
1985 - 2006:	Sugarcreek Township Police Department Police Officer / Crash Reconstructionist (Retired)

FORMAL EDUCATION

2003: B.S. Degree, Organizational Management, Wilberforce University (Wilberforce, Ohio)

1979: A.S. Degree, Law Enforcement, Sinclair Community College (Dayton, Ohio)

ACCIDENT RECONSTRUCTION ACCREDITATION

1998–2028 Full Accreditation as an Accident Reconstructionist

Accreditation Commission for Traffic Accident Reconstruction (ACTAR)

PROFESSIONAL & TECHNICAL TRAINING COURSES

1. **2019** Advanced Traffic Collision Reconstruction Course

Ohio Peace Officer's Training Academy London, Ohio

2. 1994 Traffic Accident Reconstruction Course

University of North Florida London, Ohio

3. 2009 Traffic Crash Reconstruction Update Course

University of North Florida London, Ohio

4. 1997 Traffic Accident Reconstruction Refresher Course

University of North Florida City of Dayton, Ohio Police Academy

5. 2009 Energy Methods & Damage Analysis in Crash Reconstruction Course

University of North Florida West Chester, Ohio Police Department

6. 1998 Vehicle Damage & Energy Relationship in Collision Reconstruction Course

Texas A&M University City of Dayton, Ohio Police Academy

7. 2018 Basic Crush Protocol and Review

Ohio Traffic Accident Reconstruction Association West Chester, Ohio Police Department

8. **2014** Occupant Kinematics for the Traffic Crash Reconstructionist Course

University of North Florida West Chester, Ohio Police Department

9. 1996 Biomechanics for Traffic Accident Reconstruction Course

Texas A&M University City of Collinsville, Illinois

10. 1999 Applied Physics for Traffic Accident Investigators Course

University of North Florida Union Township, Ohio Police Department

11. 2004 Advanced Traffic Crash Reconstruction with WinCrash Course

University of North Florida City of Jacksonville, Florida

12. 2000 Advanced Crash Reconstruction with WinSMAC Course

University of North Florida City of Jacksonville, Florida

13. 2013 Advanced Traffic Collision Reconstruction Course

Ohio Peace Officer's Training Academy London, Ohio

14. 2021 Pedestrian Bicycle Crash Investigation

Ohio Traffic Accident Reconstruction Association West Chester, Ohio Police Department

15. 1995 Investigation of Pedestrian Accidents and Human Factors

University of North Florida City of Dayton, Ohio

16. 2022 Investigation of Pedestrian Collisions

University of North Florida VOD On-line

17. 2001 Special Problems in Traffic Crash Reconstruction Seminar

University of North Florida City of Jacksonville, Florida

- Post Collision Drag from Spin
- Vehicle Damage analysis
- Predicting Driver Perception-Reaction Time
- Vehicle Occupant Evidence
- Practical Evidence Interpretation
- Bicycle Crash Dynamics
- Collision Scene Mapping
- Black Box Technology in Cars & Light Trucks
- Tire Failure Analysis & Litigation
- Traffic Engineering & Reconstruction
- Staged Crash Testing

18. 2011 Crash Data Retrieval System & Analysis & Applications Course

Crash Data Specialists, LLC City of Dayton, Ohio Police Academy

19. **2019 EDR Update and Calculating Impact Speed From EDR Pre-Crash Data**

Ohio Traffic Accident Reconstruction Association West Chester, Ohio Police Department

20. 2005 Crash Investigation & Reconstruction Update 2005 Seminar

National Association of Professional Accident Reconstruction Specialists/ Ohio State Highway Patrol Academy

City of Columbus, Ohio

- Rotational Mechanics
- Commercial Air Brake Systems
- Drag Sled/VC3000/Escort G-Timer Testing & Comparison
- CDR System Overview
- Commercial Vehicle EDRS
- DNA Fatal Crashes
- Criminal Prosecutions in Fatal Crashes
- Staged Crash Testing

21. 2012 Traffic Collision Reconstruction Refresher Seminar

Ohio Peace Officer's Training Academy

London, Ohio

22. 2009 Reconstruction of Collisions Involving Airborne's Course

Ohio Peace Officer's Training Academy

London, Ohio

23. 2012 CRASH3 Impact Model and Advanced Momentum Techniques in Traffic Crash

Reconstruction Seminar

Ohio Traffic Accident Reconstruction Association

City of Columbus, Ohio Police Academy

24. 2016 Momentum and Vectors for the Reconstructionist Seminar

Ohio Traffic Accident Reconstruction Association

West Chester, Ohio Police Department

25. 2018 Momentum and Vectors for the Reconstructionist Seminar

Ohio Traffic Accident Reconstruction Association

West Chester, Ohio Police Department

26. **2011** Rotational Mechanics Seminar

Ohio Traffic Accident Reconstruction Association

City of Columbus, Ohio Police Academy

27. 2017 Basic Spin Analysis Seminar

Ohio Traffic Accident Reconstruction Association

West Chester, Ohio Police Department

28. **2008** Reconstruction Seminar

Ohio Traffic Accident Reconstruction Association

West Chester, Ohio Police Department

- Narrow Object Collision Reconstruction
- Applied Statistics for the Collision Reconstructionist

29. 1990 Advanced Traffic Accident Investigation (Level II) Course

Ohio Peace Officer's Training Academy London, Ohio

30. 1987 Traffic Accident Investigation (Level I) Course

Ohio Peace Officer's Training Academy London, Ohio

31. 2010 Investigation of Collisions Involving Public Safety Vehicles Course

Ohio Peace Officer's Training Academy London, Ohio

32. 2015 Crash Reconstruction Using Video Evidence Seminar

Ohio Traffic Accident Reconstruction Association West Chester, Ohio Police Department

33. **2016** Civil Engineering for the Reconstructionist Seminar

Ohio Traffic Accident Reconstruction Association West Chester, Ohio Police Department

34. 2009 Railroad Grade Crossing Collision Investigation Course

Ohio Peace Officer's Training Academy London, Ohio

35. 2003 Low Speed Impact in Accident Reconstruction Course

Northcoast Polytechnic Institute City of Centerville, Ohio Police Department

36. **2022** Pavement Edge Drop Off

University of North Florida VOD – Online

37. 2022 Forensic Evidence Recovery for Crash Investigators

University of North Florida VOD – Online

38. **2006** Technology Issues in Accident Reconstruction Course

Northcoast Polytechnic Institute City of Centerville, Ohio Police Department

39. 1999 <u>Heavy Vehicle Crash Reconstruction</u> Course

Northwestern University Traffic Institute City of North Bend, Indiana

40. 1997 Inspection and Investigation of Commercial Vehicle Accidents Course

University of North Florida

Union Township, Ohio Police Department (Butler County)

41. 2012 Commercial Motor Vehicle Collision Investigation Level III Course

Ohio Peace Officer's Training Academy

London, Ohio

42. 2007 Commercial Vehicle Accident Investigation, Airbags / Black Boxes Seminar

Northcoast Polytechnic Institute

City of West Lake, Ohio

43. **2022** Preservation of Crucial Evidence in Commercial Motor Vehicle Crashes

University of North Florida

VOD - Online

44. 2009 Commercial Motor Vehicle 2009 Legal Update Seminar

Ohio Peace Officer's Training Academy

City of London, Ohio

45. 2021 Commercial Vehicle Crash Investigation Seminar

Ohio Traffic Accident Reconstruction Association

West Chester, Ohio Police Department

46. 2008 Commercial Vehicle Enforcement Seminar

Clinton County Sheriff's Office

City of Wilmington, Ohio

47. 2007 Comprehensive Air Brake Systems Training Program Course

Bendix Corporation

City of Huntington, Indiana

48. 1999 Acceleration and VC2000 Familiarization Course

Vericom Computers, Inc.

Butler Co. Engineers Office - City of Hamilton, Ohio

49. **2010** Acceleration and Vericom Computer Familiarization Course

Vericom Computers / Ohio Peace Officer's Training Academy

London, Ohio

50. 1996 Investigation of Motorcycle Accidents

University of North Florida

City of Dayton, Ohio

51. 1999 13th Annual IATAI Accident Reconstruction Conference Seminar (Motorcycle Crash Reconstruction)

Illinois Association of Traffic Accident Investigators City of Collinsville, Illinois

52. **2025 RECON-3D** Training Course

Recon-3D Company

Zoom - Online

53. 2025 RECON-3D User Group Meeting

Recon-3D Company

Zoom - Online

54. 2001 Paint Analysis in Traffic Investigation Seminar

Ohio Bureau of Criminal Identification & Investigation

City of Dayton, Ohio Police Academy

55. 2006 Mapscenes Certified Professional Forensic Mapping w/ Total Station Course

Mapscenes Systems, Inc.

West Chester, Ohio Police Department

56. 2011 Edge FX Basic Diagramming Software with Total Station Course

Visual Statement, Inc.

Butler Co. Sheriff Training Facility / Butler Technology, Liberty Township, Ohio

57. 2004 Forensic Mapping Specialist Course (Total Station)

MJC & Associates, Inc.

City of Kalamazoo, Michigan

58. **2012** Forensic Mapping for the Collision Investigator Course

Ohio Peace Officer's Training Academy

London, Ohio

59. **2009** Forensic Mapping with Electronic Measuring Devices Course

Ohio Peace Officer's Training Academy

London, Ohio

60. 2015 Advanced Diagramming with FARO Blitz Seminar

Crash Tech Reconstruction Services, LLC

Ohio Peace Officer's Training Academy, London, Ohio

61. **2019 FARO Zone 3D Seminar**

FARO Technologies

Ohio Traffic Accident Reconstruction Association, Blue Ash, Ohio

62. 1997 L.I.D.A.R. Based Accident / Crime Scene Reconstruction Course

Sinclair Community College City of Dayton, Ohio

63. 2017 Post Crash Mechanical Exam Seminar

Ohio Traffic Accident Reconstruction Association West Chester, Ohio Police Department

64. **2006** Tire Technology and Vehicle Dynamics Seminar

Introtech Crash Reconstruction Services City of Oberlin, Ohio

65. 2015 Tire Technology, Forensics and Tire Failure Analysis Clinic

Bridgestone / Firestone Inc. Ohio State Highway Patrol Academy City of Columbus, Ohio

66. 2018 Crash to Court: Courtroom Success Seminar

Ohio Traffic Safety Office / Ohio Traffic Accident Reconstruction Association West Chester, Ohio Police Department

67. 2000 Human Factors in Collisions Seminar

Dr. Patrick J. Robins Union Township, Ohio Police Department (Butler County)

68. 1994 Occupant Protection Usage Enforcement Training Seminar

Ohio Department of Public Safety City of Xenia, Ohio

69. 2013 National Traffic Incident Management Responder Train-The-Trainer Seminar

Federal Highway Administration / Ohio Department of Transportation City of Dayton, Ohio Fire Academy

70. 2013 Basic Cellular Records Analysis in Criminal Investigations Seminar

Ohio Peace Officer's Training Academy / City of Columbus Police City of Cincinnati Police Academy

71. 2009 BMV Fraudulent Document Seminar

BMV / Ohio Traffic Accident Reconstruction Association West Chester, Ohio Police Department

72. 1999 Emergency Vehicle Operations Course

Professional Driving Systems
Sugarcreek Township, Ohio Police Department / Wright Patterson Air Force Base

73. 2009 Practical Law Enforcement Driving

Butler County Sheriff's Office

Butler Co. Sheriff Training Facility / Butler Technology, Liberty Township, Ohio

74. 2009 Interviewing Techniques for Traffic Collision Investigation

Ohio Peace Officer's Training Academy

London, Ohio

75. 1987 Interview and Interrogations Workshop Course

Ohio Peace Officer's Training Academy

London, Ohio

76. 1997 BAC Data Master Instrument – Senior Operator Permit Course

Ohio Department of Health

Sugarcreek Township, Ohio Police Department (Greene County)

77. 1987 Theory, Technical Aspects and Practical Use of Traffic Radar Course

Ohio State Highway Patrol Academy

City of Columbus, Ohio

78. 1993 Traffic Radar Instructor Course

Ohio State Highway Patrol Academy

City of Columbus, Ohio

79. 1981 Doppler Traffic Radar Operation Course

MPH Industries, Inc. / Miami Township Police Department

City of Milford, Ohio

80. 1998 LTI 20/20 Ultralyte Laser Detection System Operator / Instructor Course

Laser Technology Inc.

Sugarcreek Township, Ohio Police Department (Greene County)

81. 1991 General Police Photography Course

Federal Bureau of Investigation Training School (FBI)

Great Oaks Police Academy, Hamilton County, Ohio)

82. 1982 Homicide Investigation Seminar

Hamilton County Police Association

Great Oaks Police Academy, Hamilton County, Ohio

83. **2003 Death Investigations for Police Officers Seminar**

Greene County Coroner's Office

Greene Memorial Hospital – Xenia, Ohio

84. 1992 Death Investigation Course

Ohio Peace Officer's Training Academy London, Ohio

85. 1989 Managing Criminal Investigations Course

Ohio Peace Officer's Training Academy London, Ohio

86. 1988 Drug Interdiction Course

Ohio State Highway Patrol Academy City of Columbus, Ohio

87. 1982 Drug Investigation Course

Ohio Peace Officer's Training Academy London, Ohio

88. 2008 Power Point for Public Safety Course

Ohio Peace Officer's Training Academy City of London, Ohio

89. 1989 Police Report Writing Course

Ohio Peace Officer's Training Academy London, Ohio

90. 1988 Evidence Room Management Course

Ohio Peace Officer's Training Academy London, Ohio

91. **1992 Instructor Training Course**

Ohio Peace Officer's Training Academy / Central State University Wilberforce, Ohio

92. **2007 Instructor Update Training Course**

Greene County Career Center / Criminal Justice Training Academy Greene County, Ohio

93. 1977 Basic Law Enforcement Training Academy (Certificate #77-823)

Greene County Training School – Greene County Sheriff's Office City of Xenia, Ohio

ADJUNCT INSTRUCTOR / PRESENTATIONS

Ohio Peace Officer's Training Academy (Office of the Ohio Attorney General)

Traffic Crash Investigation (Level I) Class

2007, 2012, 2013, 2016, 2017, 2018, 2019

Advanced Traffic Collision Investigation (Level II) Class

2008, 2010, 2011, 2014, 2015, 2016, 2017, 2018, 2019

Vehicle Dynamics (Level III) Class

2011, 2016, 2017, 2018, 2019

Traffic Crash Reconstruction Level (IV) Class

2007, 2008, 2010, 2011, 2013, 2015, 2016, 2017, 2018, 2019

Advanced Traffic Collision Reconstruction Class

[Quadratic Equations/Simultaneous Equations/Rotational Mechanics/Speed from Trailer Under-Ride]

2013, 2014, 2015, 2016, 2017, 2019

Crash Reconstruction Update Class

2010, 2011, 2012

Crash Reconstruction Refresher Class

2018

Investigation and Reconstruction of Pedestrian & Bicycle Involved Collisions Class

2009, 2010, 2011, 2014, 2016, 2018

Introduction to Energy & Crush Analysis Class

2018

Forensic Mapping for the Collision Investigator Class

2009, 2012, 2013, 2015, 2016

Forensic Aspects in Traffic Collision Reconstruction

2015

Commercial Motor Vehicle Inspection (Level 1)

2011, 2019

Commercial Motor Vehicle Collision Investigation (Level 1)

2011, 2018, 2019

A.C.T.A.R. Exam Preparation Class

2011, 2016

Speed Measuring Devices

2014, 2015, 2017, 2018, 2019, 2020

City Of Chillicothe Police Department (Ross County, Ohio)

Nikon Total Station w/ MFX / Edge FX Refresher Training

2016

Crawford County Sheriff's Office (Ohio)

Sokkia Total Station w/ MFX / Edge FX Training

2018

Expert Testimony

• Testified as an expert in numerous trials and depositions in the State of Ohio.

Crash Reconstruction Assistance

I have been requested to assist agencies with fatal or serious injury traffic crashes including but not limited to:

- Ohio Patrolmen's Benevolent Association
- City of Cincinnati Prosecutor's Office/Cincinnati Police (Ohio)
- Louisville Metro Police Traffic Unit (Kentucky)
- City of Dayton Police Traffic Unit (Ohio)
- City of Chillicothe Police (Ohio)
- City of Beavercreek Police (Ohio)
- City of Xenia Police (Ohio)
- City of Washington C.H. Police (Ohio)
- City of Oregon Police (Ohio)
- City of Lorain Police (Ohio)
- City of Monroe Police (Ohio)
- City of Greenville Police (Ohio)
- Preble County Sheriff's Office (Ohio)
- Henry County Sheriff's Office (Ohio)
- Fayette County Sheriff's Office (Ohio)
- Butler County Sheriff's Office (Ohio)
- Wood County Sheriff's Office (Ohio)
- Pickaway County Sheriff's Office (Ohio)
- Darke County Sheriff's Office (Ohio)
- Licking County Sheriff's Office (Ohio)
- Union County Sheriff's Office (Indiana)
- Fairfield Township Police (Ohio)
- West Chester Township Police (Ohio)
- Sugarcreek Township Police (Ohio)
- Oxford Township Police (Ohio)
- Sylvania Township Police (Ohio)

- Law Science Technologies, Inc.
- Crash Tech Reconstruction Services, LLC

Field Testing

- Cars / SUV Skid Testing (Vericom Accelerometer) ABS / Non-ABS (Asphalt / Grass / Gravel)
- Tractor- Double Trailers Skid Testing Tractor Bobtail Skid Testing (Asphalt) (Vericom Accelerometer)
- Tractor- Double Trailers Acceleration Testing (Asphalt)
- Tractor- Tanker Trailer Skid Testing (Vericom Accelerometer) (Asphalt) ABS
- Tractor-Trailer Engine Only Deceleration Testing
- Tractor Trailer v. Car(s) Crash Testing
- Semi-Trailer / Car Side Underride Crash Testing
- Semi-Trailer / SUV Side Underride Crash Testing
- Cars v. Cars Crash Testing
- Utility Pole Impact by a Car Testing (Cincinnati, Ohio)
- School Bus v. Pickup Truck Crash Testing
- School Bus Deceleration Testing (Vericom Accelerometer)
- School Bus Acceleration Testing (Vericom Accelerometer)
- Fire Engine Truck / Fire Ladder Trucks / Fire Medic Truck Acceleration Testing
- Fire Engine Truck / Fire Ladder Trucks / Fire Medic Truck Deceleration Testing
- Pedestrian v. Car / SUV / Pickup Truck Crash Testing (Vericom Accelerometer)
- Bicycle / Rider Vehicle Collision Testing (Vericom Accelerometer)
- Pedestrian with Bike Crash Testing (Vericom Accelerometer)
- Pedestrian Drop Testing From Truck (Asphalt / Grass / Gravel)
- Vehicles Left Turn Acceleration Testing
- Vehicles Right Turn Acceleration Testing
- Vehicles Straight Acceleration Testing (Vericom Accelerometer)
- Car / SUV/Pickup Truck Deceleration Engine Off In Gear (Drive)
- Car / SUV/Pickup Truck Deceleration Engine Off In Gear (Reverse)
- Vehicles Head On & Side Impact w/ Pole Testing
- Critical Speed Yaw Testing
- Pedestrian Walking / Running Speeds Testing
- Motorcycles v. Cars Crash Testing
- Motorcycle Drop / Coefficient of Friction Testing
- Drove a 2006 Volvo Tractor w/ Double Trailers Driving / Test Track
- Bicycle Braking (Deceleration) Testing
- Bicycle Acceleration Testing
- Drag Factor Measurement Comparison Testing (G-Analyst, VC4000, VC3000, VC2000, Drag Sled)

Affiliations

1998 – Present:	The Accreditation Commission for Traffic Accident Reconstruction (ACTAR No. 804)
2024 – Present:	National Association of Professional Accident Reconstruction Specialists, Inc. (NAPARS)
2016 - 2024:	Ohio Traffic Accident Reconstruction Association, (O.T.A.R.A.)
2008 - 2015:	Butler County Serious Traffic Accident Reconstruction Team (S.T.A.R.T.)
1995 - 2001:	National Association of Professional Accident Reconstruction Specialists, Inc. (NAPARS)