

# Curriculum Vitae

MANITOWOC COUNTY  
STATE OF WISCONSIN  
**FILED**

FEB 29 2007

CLERK OF CIRCUIT COURT

## Timothy P. Austin, ACTAR #1315

Wisconsin State Patrol Technical Reconstruction Unit  
Wisconsin State Patrol Academy  
95 South 10<sup>th</sup> Avenue  
Fort McCoy, Wisconsin 54656



### EDUCATION:

- **Northern Michigan University**, Marquette, Michigan, August 1992 – April 1996.
  - Bachelor of Science Degree.
  - Graduate 'Cum Laude' (with honors).
  - Honored by the Michigan Association of Governing Boards of State Universities and the Eighty-Eighth (1996) Michigan Legislature for extraordinary contributions to higher education and future promise.
- **Wisconsin State Patrol Academy**, Fort McCoy, Wisconsin, July – December 1996.
  - Twenty-two week law enforcement recruits training.
  - Recipient of scholastic achievement award for academic excellence.
- **University of Wisconsin - Platteville**, Platteville, Wisconsin, September 2005 – Present.
  - Admitted to / enrolled in Master of Engineering program.

### PROFESSIONAL ACCREDITATION and CERTIFICATION:

- **Accreditation Commission for Traffic Accident Reconstruction (ACTAR)<sup>TM</sup>**
  - Awarded Full Accreditation as a Traffic Accident Reconstructionist in September 2002 for demonstrated academic achievement, completion of accident specific training, applied experience in the field, and successful completion of the ACTAR Full Accreditation Written and Practical Examination.
- **Crash Data Retrieval (CDR) System (Vetronix and General Motors Corporations)**
  - Awarded certification in the operation of the Crash Data Retrieval (CDR) System and in the interpretation of data recovered from automobile sensing and diagnostic devices via the CDR system in June 2002.
- **Forensic Mapping and Diagramming**
  - Certified by the CADZone Corporation in January 2002 a national Master Trainer in the instruction of forensic diagramming using Crash Zone, Crime Zone, Fire Zone, and Pocket Zone software packages.
  - Certified by Bunce Industries in April, 2006 as a national instructor in the use of Topcon Total Stations, Forensic3D Suite modeling software, and PI-3000 modeling software.

Professional Accreditation and Certification, cont.

- **American Traffic Safety Services Association (ATSSA)**
  - Awarded certification as a Traffic Control Technician (TCT) in February 2005 for construction zone signing and federal requirements concerning highway work zones.

PROFESSIONAL AFFILIATIONS:

- **Midwest Association of Technical Accident Investigators**
  - Active member, May 2000 – Present.
- **Michigan Association of Traffic Accident Investigators**
  - Active member, June 2001 – Present.
- **Wisconsin Association for Identification** (association of and for crime scene investigators)
  - Active member, March 2004 – Present.
- **Illinois Association of Technical Accident Investigators**
  - Active member, August 2006 – Present.

SPECIALIZED INVESTIGATION TRAINING:

- **Basic Crash Investigation**, Wisconsin State Patrol Academy, Fort McCoy, Wisconsin. Forty hours, October 1996.
  - *Topics Covered:* Evidence, lamp and vehicle damage, photography, and legal aspects of crash investigation.
- **Technical Crash Investigation**, Wisconsin State Patrol Academy, Fort McCoy, Wisconsin. Forty hours, July 1997.
  - *Topics Covered:* Scale diagramming, drag factor determination, velocity and stopping distances, and field projects.
  - *Field Testing:* Deceleration tests were completed to compare traditional methods of determining drag factors against instrumentation.
- **Vehicle Dynamics**, Wisconsin State Patrol Academy, Fort McCoy, Wisconsin. Forty hours, September 1998.
  - *Topics Covered:* Laws of motion and energy, determining and using drag factors, conservation of linear momentum, vehicle damage analysis, and thrust determination.
- **Traffic Accident Reconstruction**, Institute of Police Technology and Management, Fort McCoy, Wisconsin. Eighty hours, September 1998.
  - *Topics Covered:* Conservation of momentum, mathematics and physics review, speed estimates for vehicles that fall, flip or vault, energy, and basic motion equations used in traffic accident reconstruction.

Specialized Investigation Training, cont.

- ***Crash Reconstruction In-Service***, Wisconsin State Patrol Academy, Fort McCoy, Wisconsin. Sixteen hours, January 1999.
  - *Topics Covered:* Heavy truck braking efficiency, measuring crush, conservation of momentum, and principal direction of force.
- ***Geodimeter 610 Total Station Training***, Wisconsin State Patrol Academy, Fort McCoy, Wisconsin. Eight hours, April 1999.
  - *Topics Covered:* The basic operation of the Geodimeter Total Station and its application in crash reconstruction.
- ***Wisconsin Department of Transportation Surveyor's Conference***, Superior, Wisconsin. Twenty-four hours, January 2000.
  - *Topics Covered:* Geodimeter 610 Total Station training review, product and software updates, and discussion forums.
- ***Midwest Association of Technical Accident Investigators Conference***, Eau Claire, Wisconsin. Twenty-four hours, May 2000.
  - *Topics Covered:* Reconstruction of low speed crash situations.
  - *Field Testing:* Nine tests of low speed collisions were initiated and studied.
- ***Michigan Association of Traffic Accident Investigators Conference***, Charlotte, Michigan. Eight hours, June 2001.
  - *Topics Covered:* Reconstruction of rollover crashes.
  - *Field Testing:* Two crash tests involving vehicle rollovers were initiated and studied.
- ***Southeast Coast Collision Conference***, Cocoa Beach, Florida. Twelve hours, August 2001.
  - *Topics Covered:* CRASH algorithms, driver perception-response time, and principal direction of force.
- ***Crash Reconstruction In-Service***, Wisconsin State Patrol Academy, Fort McCoy, Wisconsin. Thirty-two hours, October 2001.
  - *Topics Covered:* Forensic mapping, measuring crush profiles, and Geodimeter Total Station updates.
  - *Field Testing:* Numerous deceleration tests were conducted to study drag factors and to validate data recovery from airbag Sensing and Diagnostic Modules utilizing the Vetronix® Crash Data Retrieval (CDR) System.
- ***Traffic and Impaired Driving Law Program***, University of Wisconsin Law School, Appleton, Wisconsin. Sixteen hours, April 2002.
  - *Topics Covered:* Toxicology issues, alcohol curves, and pharmacology of alcohol.

Specialized Investigation Training, cont.

- **Crash Data Retrieval (CDR) System Operator's Certification Course**, Collision Safety Institute, Toronto, Ontario, Canada. Twenty-four hours, June 2002.
  - *Topics Covered:* Collection and interpretation of data from Electronic Data Recording (EDR) devices.
  - *Field Testing:* Four crash tests of vehicles with EDRs completed and studied.
  
- **Illinois Association of Technical Accident Investigators Conference**, Rockford, Illinois. Twenty-four hours, September 2002.
  - *Topics Covered:* Pole and tree impacts, evidence collection, driver perception and response, and pole/tree breakaway fracture energy.
  - *Field Testing:* Seven crash tests initiated to study various collisions, including vehicle/pole impacts.
  
- **Anti-Vehicle Crime Association of Wisconsin and Wisconsin Chapter of International Association of Special Investigation Units Joint Seminar**, Wisconsin Dells, Wisconsin. Sixteen hours, October 2002.
  - *Topics Covered:* Identification of fraudulent soft tissue injuries, insurance fraud, and digital photography.
  
- **Motorcycle Crash Reconstruction**, Institute of Police Technology and Management, Fort McCoy, Wisconsin. Forty hours, March 2003.
  - *Topics Covered:* The investigation of motorcycle collisions, technique, theory, and mathematical formulas.
  - *Field Testing:* Two crash tests initiated to study the deceleration rate(s) of a sliding motorcycle.
  
- **International Association of Accident Reconstruction Specialists 23<sup>rd</sup> Annual Seminar**, Kansas City, Kansas. Thirty-two hours, July 2003.
  - *Topics Covered:* Rollover collisions, heavy truck deceleration, brake proportioning valves, detecting rebuilt bodies, total stations, and investigating catastrophic collisions.
  - *Field Testing:* Numerous crash tests initiated to study vehicle rollover collisions, and several commercial motor vehicle deceleration tests completed and analyzed.
  
- **Canadian Association of Technical Accident Investigators and Reconstructionists 2003 Annual Conference**, Burlington, Ontario, Canada. Forty hours, August 2003.
  - *Topics Covered:* Analyzing events where vehicles move through the air, human factors in nighttime collisions, Crash Data Retrieval System update, including Ford vehicles, and commercial motor vehicle event data recorders.
  - *Field Testing:* Numerous crash tests completed to study how vehicles move through the air, and for validation of the Crash Data Retrieval System.
  
- **Applied Physics for Accident Reconstruction (Dr. Bruno Schmidt)**, Hawkeye Community College, Waterloo, Iowa. Forty hours, February 2004.
  - *Topics Covered:* Kinematics, Newton's Laws, momentum, energy, and rotation.

Specialized Investigation Training, cont.

- **Midwest Association of Technical Accident Investigators 2004 Conference**, Rock Island, Illinois. Twenty hours, May 2004.
  - *Topics Covered:* Challenges of multi-vehicle crash reconstructions, tire failure analysis, pedestrian crash reconstruction, occupant kinematics analysis, Crash Data Retrieval (CDR) technology and airbags, forensic death investigation, and crash reconstruction case preparation for court.
  
- **Death Investigation**, Wisconsin State Patrol Academy, Fort McCoy, Wisconsin. Twenty-four hours, June 2004.
  - *Topics Covered:* The investigation of homicide and suicide cases, and the preservation of evidence located at such scenes.
  
- **RECTEC Software Training**, Wisconsin State Patrol Academy, Fort McCoy, Wisconsin. Forty hours, July 2004.
  - *Topics Covered:* The application and use of RECTEC crash reconstruction software, instructed by the programmer.
  
- **Crash Data Retrieval (CDR) System Operator's Certification Course**, Collision Safety Institute, Fort McCoy, Wisconsin. Twenty-four hours, September 2004.
  - *Topics Covered:* Collection and interpretation of data from Electronic Data Recording (EDR) devices.
  
- **Commercial Motor Vehicle Crash Reconstruction**, Institute of Police Technology and Management, Fort McCoy, Wisconsin. Forty hours, October 2004.
  - *Topics Covered:* The investigation of commercial motor vehicle collisions, technique, theory, and mathematical formulas.
  - *Field Testing:* Two crash tests initiated to study the deceleration rate(s) of a commercial motor vehicle.
  
- **Damage and Energy Applications for Collision Reconstruction**, Collision Safety Institute, Fort McCoy, Wisconsin. Forty hours, October 2004.
  - *Topics Covered:* Vehicle damage measurement protocol for calculating vehicle speed based on crush.
  
- **American Traffic Safety Services Association Traffic Control Technician Training**, Minnesota Department of Transportation, Shoreview, Minnesota. Eight hours, February 2005.
  - *Topics Covered:* Part VI of the Manual on Uniform Traffic Control Devices.
  
- **Special Problems in Traffic Crash Reconstruction**, Institute of Police Technology and Management, Jacksonville, Florida. Thirty-two hours, April 2005.
  - *Topics Covered:* Drag sled analysis, blood pattern analysis, reconstruction update, uniform circular motion, and airborne validation.
  - *Field Testing:* Numerous crash tests initiated to study vehicle under-ride conditions.

Specialized Investigation Training, cont.

- ***Southeastern Collision Reconstruction Conference***, Charleston, South Carolina. Forty hours, July 2005.
  - *Topics Covered:* Investigating fraudulent collisions, human factors, altered suspension systems, narrow object impacts, and Crash Data Retrieval System update.
  - *Field Testing:* Numerous crash tests initiated to study and validate the Crash Data Retrieval System.
  
- ***Bunce Industries, LLC.***, Stow, Massachusetts. Twenty-four hours, April, 2006.
  - *Topics Covered:* Use and instructor certification in Topcon total stations, Forensic 3D Suite modeling software, and PI-3000 modeling software.
  - *Field Testing:* Several Topcon total stations and positioning devices were used and demonstrated for data collection and procedural purposes.
  
- ***Illinois Association of Technical Accident Investigators Annual Conference***, Bloomington, Illinois. Thirty-two hours, September, 2006.
  - *Topics Covered:* Vehicle systems update, simulations and SMAC model, pedestrian vaults, heavy truck brake systems, and Crash Data Retrieval System update.
  - *Field Testing:* Four crash tests initiated to study and validate the Crash Data Retrieval System, including head-on, angular, and driver-induced yaw collisions.
  
- ***Crash Reconstruction In-Service***, Wisconsin State Patrol Academy, Fort McCoy, Wisconsin. Twenty-four hours, January 2007.
  - *Topics Covered:* Traffic safety systems, commercial motor vehicle brake systems, technical report writing, headlamp mapping, and commercial motor vehicle electronic control modules.
  - *Field Testing:* Numerous deceleration tests were conducted to study drag factors of snowmobiles and operator perception-response times.

**SPECIALIZED INVESTIGATION INSTRUCTION:**

- ***Wisconsin State Patrol Academy***, September 2000 – Present (ongoing).
  - *Courses Instructed:* Technical Crash Investigation, Vehicle Dynamics, Geodimeter Total Station, Forensic Mapping, ACTAR Examination Preparation, Technical Crash Investigation In-Service, and Crash Reconstruction In-Service.
  
- ***Total Station Operation and Forensic Diagramming***, January 2002 – Present.
  - Certified instructor of forensic diagram generation utilizing total station technology, CADZone diagramming software, Forensic 3D Suite modeling software, and PI-3000 modeling software. Courses instructed throughout the United States, including the Great Lakes Region, Nebraska, and Alaska.

## FORMAL PRESENTATIONS:

- ***Wisconsin Prosecutor's Seminar on OWI***, Elkhart Lake, Wisconsin. November 2001.
  - *Topics Presented:* Retrieval of data from Airbag Sensing and Diagnostic Modules following airbag deployment or near-deployment.
  
- ***Traffic and Impaired Driving Law Program***, University of Wisconsin Law School, Appleton, Wisconsin. April 2002.
  - *Topics Presented:* Detailed information presented regarding the Crash Data Retrieval System, including an overview of components, vehicle airbag systems, and data interpretation.
  
- ***2003 Statewide Prosecutor Education and Training Conference***, Wisconsin Dells, Wisconsin. June 2003.
  - *Topics Presented:* Introduction to crash reconstruction analytical technique including the Crash Data Retrieval (CDR) System, trace evidence, occupant kinematics, forensic mapping, and mathematical procedure.
  - *Field Testing:* One crash test was initiated to illustrate investigative technique and to offer further validation in regards to the Crash Data Retrieval System (CDR).
  
- ***Illinois Chapter of the International Association of Special Investigative Units Membership Meeting***, Naperville, Illinois. September 2003.
  - *Topics Presented:* Detailed information presented regarding the Crash Data Retrieval System, including an overview of components, vehicle airbag systems, and data interpretation.
  
- ***Wisconsin Traffic and Safety Officers Association 2003 Conference***, Green Bay, Wisconsin. September 2003.
  - *Topics Presented:* Detailed information presented regarding the Crash Data Retrieval System, including an overview of components, vehicle airbag systems, and data interpretation.
  
- ***2003 Anti-Vehicle Crime Association of Wisconsin and the Wisconsin Chapter of the International Association of Special Investigative Units Joint Seminar***, Wisconsin Dells, Wisconsin. October 2003.
  - *Topics Presented:* Detailed information presented regarding the Crash Data Retrieval System, including an overview of components, vehicle airbag systems, and data interpretation.
  
- ***Wisconsin Association for Identification 38<sup>th</sup> Annual Educational Conference***, Shawano, Wisconsin. March 2004.
  - *Topics Presented:* Forensic mapping of crime scenes using total station technology, including courtroom presentation and examples.

Formal Presentations, cont.

- **2004 Anti-Vehicle Crime Association of Wisconsin**, Marshfield, Wisconsin. May 2004.
  - *Topics Presented:* Detailed information presented regarding the Crash Data Retrieval System, including an overview of components, vehicle airbag systems, and data interpretation.
  - *Field Testing:* One crash test was initiated to illustrate investigative technique and to offer further validation in regards to the Crash Data Retrieval System (CDR).
- **Governor's Conference on Highway Safety**, Appleton, Wisconsin. August 2004.
  - *Topics Presented:* Vehicle dynamics and the reconstruction of motorcycle collisions.
- **Wisconsin Department of Justice 2004 Technology Conference**, Waukesha, Wisconsin. September 2004.
  - *Topics Presented:* Forensic mapping of crime scenes using total station technology, including courtroom presentation and examples.
- **National Insurance Crime Bureau (NICB) In-House Training**, Chicago, Illinois. September 2004.
  - *Topics Presented:* Detailed information presented regarding the Crash Data Retrieval System, including an overview of components, vehicle airbag systems, and data interpretation.
- **National Insurance Crime Bureau (NICB) In-House Training**, Chicago, Illinois. April 2005.
  - *Topics Presented:* Detailed information presented regarding the Crash Data Retrieval System, including an overview of components, vehicle airbag systems, and data interpretation.
- **National Society of Professional Insurance Investigators (Illinois Chapter) Training**, Chicago, Illinois. October 2005.
  - *Topics Presented:* Detailed information presented regarding the Crash Data Retrieval System, including an overview of components, vehicle airbag systems, and data interpretation.
- **2006 Anti-Vehicle Crime Association of Wisconsin and the Wisconsin Chapter of the International Association of Special Investigative Units Joint Seminar**, Wisconsin Dells, Wisconsin. October 2006.
  - *Topics Presented:* Detailed information presented regarding the Crash Data Retrieval System, including an overview of components, vehicle airbag systems, and data interpretation.



## OCCUPATIONAL EXPERIENCE:

- ***Wisconsin State Patrol***, Fond du Lac, Wisconsin. July 1996 to Present.
  - July 1996 - December 1996: Enforcement Cadet.
  - December 1996 - Present: State Patrol Trooper.
  - November 1998 – September 2002: Crash Reconstruction Specialist.
  - September 2002 – Present: Accredited Crash Reconstruction Specialist.
- ***Great Lakes Crash Analysis, LLC***, Green Bay, Wisconsin. April 2002 to Present.
  - Cofounder/owner of private business providing training and crash reconstruction consulting services.

## PROFESSIONAL AWARDS / RECOGNITION:

- ***District Achievement Award***, January 1998.
  - Presented in recognition of exemplary duty performance as related to a specific criminal investigation.
- ***Division of State Patrol Outstanding Performance Award***, April 2001.
  - Presented in recognition of continued dedication, competence, and professionalism in the field of crash reconstruction.
- ***Outagamie County District Attorney's Best Badge Award***, March 2002.
  - Presented in recognition of excellence in crash reconstruction work on homicide and other serious felony cases.