

William H. Pultar A.C.T.A.R., B.S.M.E.

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### Curriculum Vitae

#### **Formal Education**

1965 to 1969 Graduated from **Dracut High School**

1972 to 1974 **Middlesex Community College**, Associate Degree Business Administration

1974 to 1976 **Bentley College**, Bachelor Degree in Accounting

1986 to 1990 **Lowell University, College of Engineering**, Bachelor Science Degree in Mechanical Engineering

#### **Formal Educational Awards, Honors, and Professional Societies**

1974 Middlesex College, Two Honorable Mentions from the Dean of Student Affairs

1976 Bentley College, Bentley Honor Society

1990 Lowell University, Pi Tau Sigma Mechanical Engineering Honor Society, Order of the Engineer Fraternity, and an Associate Member of the American Society of Mechanical Engineers.

1998 Massachusetts State Police Bureau Commander's Commendation

2004 Massachusetts State Police Division Commander's Commendation

2011 Massachusetts State Police Division Commander's Commendation

#### **Specialized Training**

1982 M.C.J.T.C., **On-Scene Accident Investigation**

1982 State Police Academy, **Technical Accident Investigation**

1984 University of North Florida, **Accident Reconstruction**

1985 University of North Florida, **Special Problems in Accident Reconstruction**

1986 University of North Florida, **Tire Forensics**

1986 University of North Florida, **Special Problems in Accident Reconstruction**

1987 University of North Florida, **The Inspection and Investigation of Commercial Vehicle Accidents.**

1993 Massachusetts State Police Academy, **Seminar on motor vehicle accident fraud, and occupant kinematics**, Lecture Robert Dubois

1993 Massachusetts State Police Academy, **Day Time/Night Time Acuity, Perception & Reaction Time**, Course taught by Doctor Benard Abrams MD

1994 Massachusetts State Police Academy, **Physical Evidence gathering techniques for motor vehicle accidents**, Course taught by FBI Special Agent Charley Walsh

1994 Texas A&M University, **Pedestrian/Bicycle Accident Reconstruction**, Mr. J Eubank, and R. Haight

- 1994 The Commonwealth of Massachusetts Governor's Highway Safety Bureau Specialized Training in **Older Drivers Visual Behavior on the Highway**, by Doctor S. Abrams and Doctor Paul S. Olson
- 1995 University of North Florida, IPTM, **Advance Accident Reconstruction with the Use of Micro Computer**, by Ph.D. Gordon Brigg
- 1995 University of North Florida, IPTM, **Motorcycle Accident Investigation**
- 1995 Texas A&M University, **BioMechanics in Motor Vehicle Collisions** by M.D. Paul Besant-Matthews & William J Ernyei B.S.M.E. & M.S. M.E.
- 1996 Texas A&M University, **Applied Physics for Accident Reconstruction**, Ph.D. Bruno Schmidh, J.D. Hudak B.S.C.E.
- 1997 Consolidate Rail Corp. **Grade Crossing Collision Investigation**, William Hallene, Providence Worchester Railroad, Thomas J. Egan, Conrail, Ms. Beth Boardman, State Coordinator
- 1997 Michelin Tire Corp. **Tire Damage Analysis Course**,
- 1997 New England State Police Administrators Conference, **Tire & Vehicle Dynamics Course**
- 1997 University of North Florida, **Bus Accident Investigation**
- 1998 International Association of Accident Reconstructionist and Investigator Seminar, **Investigation of Low Speed Collision, Older Driver Acuity, and The preservation of Trace and DNA evidence from Motor Vehicles**, By Ph.D. Lee, Robert Dubious, and Peter Murphy
- 1998 Texas A & M University, **Low Speed Collision Analysis**, 40 hour course by Thomas J Szabo, Judson B. Welcher, W. R. Haight
- 2000 Vericom Computers Inc. **Acceleration and VC2000PC Training**, 16 hour course by Richard A. Jobe
- 2000 Texas A&M University, **Advanced Scene Investigation Using Forensic Mapping and CAD**, 40 hour course
- 2000 Autodesk Inc, **Certificate of Completion of AUTOCAD® 2000**, 40 hour course on computer aided surveying
- 2001 University of North Florida, IPTM, **Advanced Accident Reconstruction with the Use of WinSLAM ®**, by Ph.D. Gordon Brigg
- 2002 University of North Florida, IPTM **Applied Physics for Traffic Crash Investigation**, by John Daily, B.S.M.E.
- 2003 University of North Florida, IPTM, **CDR Toolkit-User Certification**, by B, J, Turner of Vertronix Corporation.
- 2005 **Visual Statement**, Specialized training in Visual Statement crash simulation software by company representative Michael Greenfield.

- 2005      **Photomodeler**; Training in rendering 3d measurements from photographs employing Photomodeler software by company representative Daniel Miller
- 2005      **Vericom**, Specialized training by Richard Jobe of Vericom Inc. for the Vericom data acquisition system regarding braking, acceleration, and power measurements for motor vehicle crashes.
- 2006      **Collision Safety Institute**, Thirty-six hour course with a final exam. Required course to be Bosch Inc. certified as a Crash Retrieval Technician for SDM's, EDR's, ECM's and RSM's. Taught by W.R. "Rusty" Haight and Mr. Brad Muir
- 2008      **Pedestrian/Bicycle Crash Investigation**, Forty Hour course with a final exam. Institute of Police Technology and Management of the University of North Florida. This course was focused on determining speed from throw distance and human factors involving perception and reaction time.
- 2009      **Crash Data Technician & Crash Data Retrieval Specialist**, A two tier 40 hour course taught by Collision Safety Institute and certified by Bosch Electronic on motor vehicles Event Data Recorders (EDR). This course instructor was Rusty Haight and this course covered all of the intricacies of downloading and interpreting the data from motor vehicle ROS, SDM, PCM modules. This course was rigorous and it required the passing of three exams.
- 2010      **Inspection and Investigation of Commercial Vehicle Crashes**, this course was sponsored by the Institute of Police Technology and Management of the University of North Florida. Covered in this course were the kinematics problems that are unique to air brake systems, weight shift differential of commercial vehicles, and braking efficiency of heavy vehicles.
- 2010      **Human Factors for Traffic Crash Reconstruction**, A comprehensive 40 hour course in human factors that was taught by Jeffrey Muttart. This course covered gap acceptance, perception reaction time, hazard recognition, and lead vehicle avoidance. Employing the concepts of this course it is possible to ascertain via stepwise linear regression a range of "normal" reaction times to path intrusions and lead vehicle crashes, gap acceptance time, and night time perception distances. The instructor, Mr. Jeffrey Muttart is considered one of the leading researchers and experts in the discipline of human factors involving pedestrian and motor vehicle crashes.
- 2011      **Traffic Control Supervisor**, This course was sponsored by American Traffic Safety Service Association and covered the basic skills needed by personnel working in the field of traffic control at highway or investigating motor vehicle crashes at construction and maintenance worksites. This course was based upon the nation temporary traffic control standards and guidelines as contained in the Manual on Uniformed Control Devices (MUTCD).
- 2011      **Crash Data Analysis**, This was a comprehensive course that covered the intricacies of the analysis of the Ford, GM, Chrysler, and Fiat Data recorders data. This was a 40 hour course that was taught by W.R. "Rusty" Haight. Moreover this course is certified by Bosch Incorporation and to successfully complete this course all candidates had to pass three rigorous exams
- 2012      **Crash Data Analysis**, This was comprehensive course that covered the intricacies of the analysis of the Ford, GM, Chrysler, Fiat, and included the newly supported Toyota Event Data recorders data. This was a 40 hour course that

was taught by W.R. "Rusty" Haight. Moreover this course is certified by Bosch Incorporation and to successfully complete this course all candidates had to pass three rigorous exams

- 2012      **Crash Data Retrieval Technician 1 & 2**, An all-inclusive 16 hour course that was taught by Mr. Michael Merolli that covered the particulars of the proper techniques to imaged data from the EDR from both the OBDII port or a direct CDR bench download. Additionally the proper procedure to back powering a CDR module was taught during this course. This course is certified by Bosch Incorporation and to successfully complete this course all candidates must pass three exams, conduct several bench-top, OBDII downloads, including one download that required the module to be back-powered.
- 2013      **Preserving and Analyzing Information from Heavy Vehicle EDR's**, This was a wide-ranging course on the gathering of electronic data from commercial vehicles Event Data Recorders, Engine Control and After Treatment modules. This was a 40 hour course sponsored by Northwestern University and taught by Mr. William Messerschmidt and Mr. Ronald Baade. This course focused on the proper gathering, preserving, and analyzing of electronic data that can be obtained from the various modules in a commercial vehicle. This course was evenly divided between class room instruction and hands on downloads of heavy vehicles in the field.
- 2014      **Motor Vehicle Headlamp Performance and Mapping**: This lecture covered the basis of motor vehicle headlight illumination as set forth by SAE J1383. Additionally the principles of illumination, luminance, contrast ratio, and the minimum amount of light that will stimulate the human eye were covered in this lecture. The lead instructor was James S. Sobek, P.E. who is currently considered one of the lead experts in this field.
- 2014      **NAPARS Conference**: This conference covered topics specifically focused on energy methods for ascertaining speed from crush energy analysis and Commercial Vehicle Engine Control Module evidence. The lecturers consisted of Mr. Raymond and Mr. Brian McHenry of McHenry Software Inc, Mr. George Meinschien P.E. , and Daniel W Vomhoff III

### **Job Experience**

1974 to 1982 Police Officer in the town of Dracut

1979 to 1982 Sergeant in Charge of Accident Records, Dracut

1982 to 1992, Metropolitan Police

1983 to 1992, Investigator, Traffic Services Unit

1992 to 2008: Trooper assigned to the Massachusetts Collision Analysis & Reconstruction Section

2008 to 2009: Promoted to Sergeant and was assigned to AHQ as a patrol supervisor. Duties included but are not limited to the investigation of line of duty injuries, citizen complaints, cruiser crashes, and the use of force incidents. Additionally, as a result of a shortage of Lieutenants, I have been required to fill in as the shift commander. As the A Troop shift commander, I was responsible and accountable for the supervision of A Troop personnel and the oversight of a geographical area that covers the northeast corner of Massachusetts. Furthermore, as SCO I was

put in charge of large high risk NIMS incidents that included the Everett tanker rollover and fire and a radiological incident on Rte 495 in Merrimack.

2009 to 2011: Upon being transferred to the C.A.R.S. unit from the A Troop SCO position I assumed the position of section supervisor for the Northeast Team of the C.A.R.S. unit. Duties include but are not limited to the supervision of the four subordinates who comprise the Northeast Team, the investigations of motor vehicle homicide cases and the overseeing of the investigation of the other members of the Northeast Team. Additionally, I have been responsible for the training of the Northeast Team members in newer aspects of total station technology. Furthermore, I have been consulted numerous times on the kinematics of motor vehicle crashes by the Essex, Middlesex, and Hampshire District Attorney's Offices.

2009 to 2010: Upon being transferred to the C.A.R.S. unit from the A Troop SCO position I assumed the position of section supervisor for the Northeast Team of the C.A.R.S. unit. Duties include but are not limited to the supervision of the four subordinates who comprise the Northeast Team, the investigations of motor vehicle homicide cases and the overseeing of the investigation of the other members of the Northeast Team. Additionally, I have been responsible for the training of the Northeast Team members in newer aspects of total station technology. Furthermore, I have been consulted numerous times on the kinematics of motor vehicle crashes by the Essex, Middlesex, and Hampshire District Attorney's Offices.

2010 to 2014: Promoted to Lieutenant and I was assigned to AHQ as a shift commander. As the A Troop shift commander, I was responsible and accountable for the supervision of A Troop personnel and the oversight of a geographical area that covers the northeast corner of Massachusetts. Furthermore, as SCO I was put in charge of large high risk NIMS and crime related incidents such as the 2012 Beverly homicide and the Boston Bombing incidents.

**Professional Societies**

ASME, IAARS, NATARI, and ACTAR

**Qualified as an Expert in Accident Reconstruction In:**

Charlestown, Chelsea, Cambridge, Somerville, Malden, Quincy, Roxbury, Dedham District Courts; Newbury, Dedham, Salem, Lawrence, Boston Superior Courts, and Federal District Court

**Teaching Experience in the Field of Accident Investigation:**

1983 to 1994 Taught for the M.C.J.T.C. several courses in "ON Scene Accident Investigation."

**Accreditation:**

Currently accredited by the Accreditation Commission for Traffic Accident Reconstructionist, Accreditation #97

**Articles on Accident Reconstruction Published:**

"A Model to Determined Deceleration of Rotating Vehicles," **Accident Reconstruction Journal**, November/December 1990 Volume 2, No. 6

"Numerical Technique to Compute Either Speed or Stopping Distance on Wet Roadways" **The Traffic Accident Reconstructionist**, 1994, the official Journal of IAARS