

David C. Thornburg

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<https://collisionrecon.com>

SUMMARY OF QUALIFICATIONS AS COLLISION RECONSTRUCTIONIST

Relevant Experience

30+ years of experience investigating and/or reconstructing collisions.

Personally investigated, reconstructed, and/or consulted on approximately 3,000 collisions during career, ranging from minor property damage to multiple fatality type crashes, to include those involving pedestrians, bicycles, motorcycles, farm vehicles, and commercial vehicles.

Accreditation Commission for Traffic Accident Reconstruction (ACTAR) accredited, Reg. #1502 (2004 – 2013, 2023 – Present).

Formal Education

2018 – Bachelor of Science (Mechanical Engineering) from Eastern Washington University

- ABET Accredited Program
- Graduated *Cum Laude*
- Track Emphasis – Materials & Computational Mechanics
- Capstone Project – Designed and fabricated drag sled to test roadway coefficients of friction & co-authored research article on effect of magnesium chloride de-icer on roadway friction

2009 – Associate of Science (Physics) from Spokane Falls Community College

1990 – Associate of Applied Science (Security Administration) from the Community College of the Air Force

Specialized Training

1993 – *Basic Collision Investigation*, Washington State Patrol, 40 hours

1998 – *Advanced Collision Investigation*, WA Criminal Justice Training Commission, 80 hours

1999 – *Technical Collision Investigation*, WA Criminal Justice Training Commission, 120 hours

Specialized Training Cont.

- 1999 – *Highway-Rail Grade Crossing Collision Investigation*, Burlington Northern, 16 hours
- 2000 – *Occupant Kinematics*, Robert Kaufman, Harborview / CIREN, 12 hours
- 2000 – *Collision Investigation Reconstruction*, Washington State Patrol, 132 hours
- 2002 – *Crash Data Retrieval (CDR) System Operator*, Collision Safety Institute, 16 hours
- 2002 – *Ped/Bike Crash Investigation*, Institute of Police Technology and Management, 40 hours
- 2002 – *Heavy Truck Reconstruction*, Washington State Patrol, 36 hours
- 2004 – *Applied Physics for the Traffic Crash Investigator*, Institute of Police Technology and Management, 40 hours
- 2004 – *Excel for the Accident Reconstructionist*, Accident Analysis & Reconstruction, 40 hours
- 2005 – *WA State Traffic Control Flagger*, Spokane County, 8 hours
- 2005 – *WA State Traffic Control Technician*, Evergreen Safety Council, 20 hours
- 2006 – *Crash Data Retrieval Technician Course Instructor*, Collision Safety Institute, 16 hours
- 2006 – *Crush Energy Analysis*, Accident Analysis & Reconstruction, 40 hours
- 2009 – *Crash Data Retrieval Technician Course (CDR)*, Collision Safety Institute, 8 hours
- 2009 – *Crash Data Retrieval (CDR) Data Analyst Course*, Collision Safety Institute, 32 hours
- 2009 – *Officer Involved Collision Prevention and Investigation*, Collision Investigation Solutions, 16 hours
- 2010 – *Arson Investigation for Patrol and Fire Officers*, Remedy Resource Group, 22 hours
- 2023 – *Advanced Recon with EDR Applications*, Accident Analysis & Reconstruction, 40 hours

Specialized Training Seminars & Conferences

- 2001 – *Motorcycle Collision Analysis Seminar*, John Hunter, Investigative Training Service, 8 hours
- 2001 – *Crash Analysis Seminar*, John Hunter, Investigative Training Service, 8 hours
- 2002 – *Crash Testing*, FARO Conference, 16 hours
- 2002 – *Occupant Kinematics*, FARO Conference, 8 hours
- 2002 – *Truck Rollover & Newton's Laws of Motion*, Dr. Frank Navin, WATAI Conference, 8 hours
- 2004 – *Accident Reconstruction Formulas*, WATAI Conference, 8 hours
- 2004 – *Code of Federal Regulations*, WATAI Conference, 8 hours
- 2004 – *ARC-CSI Crash Conference*, 28 hours
- 2005 – *ARC-CSI Crash Conference*, 28 hours
- 2006 – *Crash Data Retrieval User's Conference*, ARC-CSI, 16 hours

Specialized Training Seminars & Conferences Cont.

- 2006** – *Crash Testing*, WATAI Conference, 8 hours
- 2007** – *Applied Physics and Momentum & Energy Analysis*, Dr. Bruno Schmidt, WATAI Conference, 8 hours
- 2008** – *Crash Data Retrieval User's Conference*, ARC-CSI, 16 hours
- 2010** – *iWitness Photogrammetry Workshop*, DeChant Consulting Services, 32 hours
- 2011** – *3D Diagramming with CAD Zone Software Workshop*, Spokane Community College, 16 hours
- 2017** – *Advanced Crash Investigation*, John Daily, MSME, Jackson Hole Scientific Investigations, 16 hours
- 2023** – *EDR Update*, Andrew Rich, Rich Consulting, National Association of Professional Accident Reconstruction Specialists (NAPARS), 2 hours
- 2023** – *Human Factors*, Dr Susan Lantz, Mechanical and Biomedical Engineer, National Association of Professional Accident Reconstruction Specialist (NAPARS), 2 hours
- 2023** – *Ignition Cyclopedia*, Kent Boots, Kent E. Boots & Associates, National Association of Professional Accident Reconstruction Specialist (NAPARS), 2 hours
- 2023** – *Back to Basics – Equation Derivation, Conservation of Linear Momentum, and Case Studies*, WATAI Conference, 24 hours
- 2023** – *Video Analysis* – Joe Warren, National Association of Professional Accident Reconstruction Specialist (NAPARS), 2 hours

Work Experience

July 2022 to Present – Criminal Defense Investigator for the Spokane County Public Defender's Office

December 2021 to July 2022 – Bodily Injury Liability Claims Adjuster for Farmers Insurance Company

January 2001 to Present – Established Thorn Consulting Services in 2001 providing forensic expert witness services in motor vehicle accident investigation and reconstruction.

January 1996 to November 2021 – Sergeant (8+ years), Spokane County Sheriff's Office, assigned to the Patrol Division as a platoon supervisor. Previously assigned to the Traffic Unit as a traffic deputy (5 years) and traffic detective (4 years), which responsibilities included investigating and reconstructing serious injury and fatality collisions. ACTAR accredited reconstructionist within the region. Certified instructor through WSCJTC and instructed for the department and other agencies throughout the State of Washington in accident investigation and reconstruction.

Work Experience Cont.

March 1992 to December 1995 – State Trooper with the Washington State Patrol responsible for general patrol duties and collision investigations.

September 1988 to December 2010 – Security Police with the United States Air Force responsible for general military police operations on Air Force installations. Also served as a First Sergeant and Human Resource Advisor with the Washington Air National Guard at the 141st Air Refueling Wing (700+ personnel), Fairchild AFB, WA. Retired from the military with an Honorable Discharge as a Senior Master Sergeant (E-8).

Related Instructor Experience

Previous certified instructor through the Washington State Criminal Justice Training Commission (WSCJTC) to teach in the following areas: Collision Investigation and Collision Reconstruction (2001 – 2021).

Guest lecturer for Engineering Senior Seminar at Eastern Washington University (2016-2019).

Guest lecturer in Applied Physics at Spokane Falls Community College (2008-2009).

Adjunct Instructor for Spokane Community College in Traffic Investigation (2005).

Over 1,000 hours of classroom teaching in the following areas of crash investigation:

Basic Collision Investigation, Advanced Collision Investigation, Technical Collision Investigation, Pedestrian Collision Investigation, Motorcycle Collision Investigation, Collision Reconstruction, Momentum and Vector Analysis, Crush Analysis, Vehicle Dynamics, Occupant Kinematics, Skidmark Analysis, Human Factors, Time and Distance, Airborne Scenarios, Newton's Laws of Motion, Lamp Analysis, and Equation Derivation.

Previous certified Standardized Field Sobriety Test (SFST) instructor, Drug Recognition Expert (DRE) instructor (1998 – 2006), and BAC Datamaster – breathalyzer instructor (1999 – 2016).

Professional Associations

2001 to Present: Member of the Washington Association of Technical Accident Investigators (WATAI)

2002 to 2021: Member of the Society of Automotive Engineers (SAE)

2002 to 2021: Member of the Accident Reconstruction Communications Network (ARC)

2003 to Present: Member of the International Network of Collision Reconstructionists (INCR)

2018 to Present: Member of the National Association of Professional Accident Reconstruction Specialists, Inc. (NAPARS)

2010 to 2020: Member of the American Society of Mechanical Engineers (ASME)

Professional Associations Cont.

2001 to 2012: Member of the Forensic Accident Reconstructionists of Oregon (FARO)

Expert Testimony

- 2004** – *Robert Forster v. Shawn Lyons*, Spokane County Superior Court, WA, civil trial
- 2005** – *State of Washington v. Ricky Knokey*, Grays Harbor County Superior Court, WA, criminal trial
- 2006** – *Darlene Edwards v. Joan Miner*, Superior Court of the Virgin Islands, Cause No. SX-05-SM-541, civil trial
- 2008** – *State of Idaho v. Dominick Salois*, Kootenai County District Court, ID, criminal trial
- 2009** – *State of Washington v. Kevin Burton*, Grays Harbor County Superior Court, WA, Cause No. 08-1-525-1, criminal trial
- 2009** – *Conrad Pierce v. Farmers Insurance*, Spokane County Superior Court, WA, Cause No. 06-2-03748-5, mediation hearing
- 2009** – *Nachtigal v. FICW*, Spokane County Superior Court, WA, Spokane County Superior Court, WA, Cause No. 06-2-03939-9, deposition
- 2010** – *State of Washington v. Greg Cedell*, Pacific County Superior Court, WA, Cause No. 09-1-00198-5, criminal trial
- 2010** – *Joshua Arleth v. Keree Jens & Brian Wilson*, Spokane County Superior Court, WA, Cause No. 08-2-05575-7, deposition
- 2010** – *Angelique Thomas v. Chris Sonnabend*, Spokane County Superior Court, WA, Cause No. 09-2-02590-2, deposition
- 2010** – *Christopher & Drew Rynning v. Spokane Kia*, Spokane Superior Court, WA, Cause No. 09-2-03945-8, deposition
- 2010** – *Estate of Kevin Lewis v. WA State Department of Transportation*, Spokane County Superior Court, WA, Cause No. 09-2-01041-7, deposition
- 2010** – *Mary Arndt v. Spokane County*, Spokane County Superior Court, WA, Cause No. 09-2-03156-2, deposition
- 2011** – *State of Washington v. Michael Bourgette*, Grays Harbor County Superior Court, WA, Cause No. 10-1-00072-3, criminal trial
- 2011** – *State of Washington v. Thomas Olsen*, Spokane County Superior Court, WA, Cause No. 09-1-02073-7, criminal trial
- 2011** – *State of Washington v. Jonathon Bales*, Spokane County Superior Court, WA, Cause No. 10-1-03004-3, criminal trial
- 2011** – *Warn Wilson v. Thomas Birge*, Spokane County Superior Court, WA, Cause No. 11-02-02721-4, arbitration hearing

Expert Testimony Cont.

- 2011** – *Linda Bays v. Teresa Herrick & Peggy Regnier*, Spokane County Superior Court, WA, Cause No. 11-2-00027-8, deposition
- 2012** – *State of Washington v. Richard Harwood*, Spokane County District Court, WA, Case No. C00119251, criminal trial
- 2012** – *State of Idaho v. Lisa Calbick*, Kootenai County District Court, ID, criminal trial
- 2013** – *Michael Abney v. Edwin Andrews*, Spokane County Superior Court, WA, Cause No. 11-2-02189-5, deposition
- 2013** – *State of Washington v. Jeffrey Williams*, Spokane County Superior Court, WA, Cause No. 12-1-02575-5, criminal trial
- 2013** – *Jilanne Westley v. Jack Goodwin*, Spokane County District Court, WA, Cause No. 11-01-02694-3, civil trial
- 2013** – *Michael Richardson v. Lake Pend Oreille School District #84*, Bonner County District Court, ID, Case No. CV-2011-01618, deposition
- 2013** – *State of Washington v. Richard Lee-Waddell*, Whitman County Superior Court, WA, Cause No. 12-1-00147-7, criminal trial
- 2013** – *State of Washington v. Christopher Arnold*, Spokane County Superior Court, WA, Cause No. 12-1-01971-2, criminal trial
- 2013** – *Conrad Malinak v. Spokane County*, Spokane County Superior Court, WA, Cause No. 13-2-01216-7, deposition
- 2015** – *Walter Hartley v. Peggy Griffin*, Chelan County Superior Court, WA, Cause No. 13-2-00775-9, deposition
- 2015** – *Laurie Jenks v. Toyota Motor Sales, U.S.A., Inc.*, King County Superior Court, WA, Cause No. 13-2-23366-5, deposition
- 2016** – *Vickie Eastridge v. Bernard Anson*, Yakima County Superior Court, WA, Cause No. 13-2-03923-0, deposition
- 2016** – *James Haddox v. James Shaffer*, Benton County Superior Court, WA, Cause No. 15-2-01473-5, civil trial
- 2016** – *State of Washington v. Grigoriy Kravtsov*, Spokane County District Court, WA, Case No. IN539612, infraction hearing
- 2017** – *Paul Olkowski v. Skylar Frederickson*, Adams County Superior Court, WA, Case No. 15-2-04157-1, deposition
- 2018** – *Xavier Acuna v. Karolina Shvets*, Benton County Superior Court, WA, Case No. 16-2-00191-1, deposition
- 2019** – *Bryce Giffing v. Kurt Goe*, Spokane County Superior Court, WA, Case No. 18-2-01547-7, mediation hearing

Expert Testimony Cont.

2019 – *Angelica Perez v. Maria Casillas & Atkinson Staffing Inc*, Franklin County Superior Court, WA, Case No. 18-250086-11, deposition

2023 – *State of Washington v. Anthony Cleveland*, Spokane County District Court, WA, Case No. 1A0728496, criminal trial

2023 – *State of Washington v. Michael Haynes*, Spokane County District Court, WA, Case No. 1A0108974, criminal trial

Publications

“The Speed Triangle – Momentum, Energy and PCM Data”, Collision: The International Compendium for Crash Research, Spring 2011, Volume 6 Issue 1.

“The Effect of Magnesium Chloride De-Icer on Roadway Friction”, Accident Reconstruction Journal, Volume 28, No. 4, July/August 2018.