

CURRICULUM VITAE

ALAN FOSTER ASAY, P.E., M.S.

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Born: March 23, 1965 in Bountiful, Utah
Married to Tamara Lynne Dudley
Children: Brandon, Kyle, Courtney, Ryan

Registered Professional Engineer - Utah No. 180089, October 1994



AFFILIATION

Woolley Engineering Research Corporation

5314 North River Run Drive, Suite 330
Provo, Utah 84604
(801) 431-0220

EXPERIENCE

August 1992 - Present Woolley Engineering Research Corporation - Provo, Utah

Aug 1992 - Present Mechanical Engineer P.E., M.S.

- Accident Reconstruction, Crashworthiness, Accident Investigation, Mechanical Engineering Design and Analysis general experience.
- Testing of structures and systems under both static and dynamic conditions. Hands on experience with the testing of vehicles both car to car, barrier to car, and simulating out-of control vehicles by remote control.
- Numerous inspections of accident sites and vehicles involving automobiles, tractor trailer combinations, motorcycles, bicycles, and pedestrians.

September 1986 - December 1991 Collision Safety Engineering - Orem, Utah

Apr 1990 - Dec 1991 Mechanical Engineer B.S.

- Assisted lead engineer in investigating, reconstructing, and preparing for trial numerous accidents involving product liability.
- Inspected several accident sites and vehicles on a "quick-reaction" basis. This provided valuable information and experience for later accident reconstruction and testimony.
- Received experience as an expert witness, on a motor-cycle truck accident and testified as a fact witness on several cases.
- Assisted in researching, testing, and co-authoring a technical paper on measuring depth of crush from two or more photographs utilizing reverse photogrammetry techniques.
- Performed various types of testing and analysis. Including: crash testing of vehicles, brake testing of cars and trucks, and pendulum testing of occupant damage to vehicle interiors.

Sept 1986 - Apr 1990 Graphics Technician

- Performed numerous accident site and accident vehicle inspections. These included using state of the art techniques for measuring and documenting information pertinent for accident reconstruction.
- Assisted lead engineer on numerous accident reconstructions, including determination of the vehicle motion and timing sequence of the accident.
- Created numerous 2D and 3D computer objects for trial exhibits utilizing Movie.BYU and Versacad. These exhibits include real time animations, various views of displacement vectors, depictions of the accident scene, and 2-dimensional vehicle templates.
- Built various types of court exhibits including vehicle models, 3-dimensional accident scene models, and cut-away sections of vehicles.

EDUCATION

Masters of Science, Mechanical Engineering, Brigham Young University, Provo, Utah, June 1992

Bachelor of Science, Mechanical Engineering, Minor in Mathematics, Brigham Young University, Provo, Utah, April 1990

Graduate Electives Completed :

CAD Engineering Software Design
Finite Element Analysis
Jet Propulsion Analysis and Design
Design Optimization
Compressible Fluid Dynamics
Corrosion

Applied Aerodynamics/Flight Mechanics
Aircraft Structures
Computer Aided Geometric Design
Internal Combustion Engines
Statistical Quality Control
Composite Materials

PROFESSIONAL DEVELOPMENT

SAE International Symposium – Accident Reconstruction; Presenter for “Crash Pulse Modeling”; Ventura, CA, November 2005
SAE International Symposium – Highway Vehicle Event Data Recorders; NTSB Academy; Ashburn, Virginia, June 2004
SAE International Seminar – Accident Reconstruction: Special Topics; Tempe, AZ, May 2001
SAE International Seminar – Accident Reconstruction: State-of-the-Art Toptec; Costa Mesa, CA, December 1999
SAE International Seminar – Passenger Car Rollover Toptec: Cause and Prevention; San Diego, CA, January 1999
SAE International Seminar - Airbag Design and Performance Toptec; Costa Mesa, CA., August 1997
Northwestern University Traffic Institute - Traffic Accident Reconstruction II, Oakland, CA., May 1996
SAE International Seminar - Low Speed Rear Impact Collision Toptec; Irvine, CA., August 1994

SKILLS AND QUALIFICATIONS

- State of Utah Class “B” Commercial Driver License with a Motorcycle Endorsement.
- Software related skills and experience:
Autocad, MicroStation CAD software, 3DStudio rendering and animation software, AI video editing software
IMPAC/PCCrash/EdSmac/EdCrash accident reconstruction software, and Photomodeler photogrammetry software.

ACHIEVEMENTS

Received Excellence in Oral Presentation Award for Crash Pulse and *DeltaV* Comparisons in a Series of Crash Tests with Similar Damage (BEV, EES), SAE World Congress, April 2008
Received Excellence in Oral Presentation Award for Narrow Object Impact Analysis and Comparison with Flat Barrier Impacts, SAE World Congress, March 2002
Passed Professional Engineer Examination, October 1994
Passed the Engineer-in-Training (EIT) Exam, April 1990
Academic scholarship to Brigham Young University, May 1983
Vocational arts contest (VICA), first place in mechanical drawing, April 1983
Eagle Scout, Boy Scouts of America, July 1978

PUBLICATIONS

Rollover Testing of Sport Utility Vehicles (SUVs) on an Actual Highway, Alan F. Asay, Ronald L. Woolley, Society of Automotive Engineers, SAE#2010-01-0521, April 2010.

Rollover Testing on an Actual Highway, Alan F. Asay, Ronald L. Woolley, Society of Automotive Engineers, SAE#2009-01-1544, April 2009.

Crash Pulse and *DeltaV* Comparisons in a Series of Crash Tests with Similar Damage (BEV, EES), Ronald L. Woolley and Alan F. Asay; Society of Automotive Engineers, SAE #2008-01-0168, April 2008.

Narrow Object Impact Analysis and Comparison with Flat Barrier Impacts, Alan F. Asay, Dagmar B. Jewkes, and Ronald L. Woolley; Society of Automotive Engineers, SAE #2002-01-0552, March 2002.

Crash Testing with a Massive Moving Barrier as an Accident Reconstruction Tool, Ronald L. Woolley, Alan F. Asay, Dagmar Buzeman Jewkes, and Chuck Monson; Society of Automotive Engineers, SAE #2000-01-0604, March 2000.

Determination of Vehicle Crush from Two Photographs and the use of 3D Displacement Vectors in Accident Reconstruction, Ronald L. Woolley, Karen A. White, Alan F. Asay, Jon E. Bready; Society of Automotive Engineers, SAE #910118, Jan. 1991.

PROFESSIONAL AFFILIATIONS

Member of American Society of Mechanical Engineers (ASME) Since 1993.

Member of the Society of Automotive Engineers (SAE) Since 1990.