

Casey D. Breen

BSME, ACTAR

Senior Consultant, Auto/Marine



Mr. Breen is a degreed Mechanical Engineer with a minor in Biomechanics with Engineering Systems Inc. (ESi) in Ft. Myers, Florida. Mr. Breen has experience in analysis of accidents and injuries, testing, research, and the operation of on and off-road motorcycle-based vehicles. He has investigated several hundred off-road vehicle accidents. In addition, he has conducted research and testing related to the performance of passenger vehicles, personal watercraft, and recreational marine vessels. His professional experience includes vehicular accident investigation and reconstruction, risk analysis, mechanical design, and product research.

Education

B.S., Mechanical Engineering, Minor Biomechanics, University of Florida, 2006

Licenses & Certifications

- Accreditation Commission for Traffic Accident Reconstruction (ACTAR), Traffic Accident Reconstructionist, May 19, 2017, Registration Number: 3177
- Licensed Motorcycle Operator
- PADI Open Water SCUBA Certification, 1995
- State of Florida Licensed Boat Operator, 1996
- Pleasure Craft Operator Card, Canada, 2025

Languages

- English

Positions Held

Engineering Systems Inc., Ft. Myers, Florida

- Senior Consultant, 2018 - Present
- Senior Staff Consultant, 2014 – 2017
- Staff Consultant, 2006 – 2013
- Engineering Intern, 2002 – 2005

Contact Information

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ESi Fort Myers

12750 Commonwealth Dr.

Fort Myers, FL 33913

Areas of Specialization

- Motorcycles, ATVs, Side-by-Sides, Golf Cars, and other Specialty Vehicles
- Accident Data Analysis
- Product Design/Testing
- Risk Analysis
- Automotive Accident Investigation/Reconstruction
- Marine Accident Investigation/Reconstruction

Continuing Education

- **Hyundai-KIA & Tesla EDR Tools Technician** - Institute of Police Technology and Management (IPTM), Aurora, Illinois, August 2025
- **Passenger Restraint Safety Systems**, Institute of Police Technology and Management (IPTM), Aurora, Illinois, August 2025
- **Event Data Recorder (EDR) Update and Analysis Course**, Ruth Consulting, Norcross, Georgia, 2023
- **Bosch CDR Tool Technician Training**, Institute of Police Technology and Management (IPTM), May 2022
- **Symposium on Traffic Safety**, Institute of Police Technology and Management (IPTM), Orlando, Florida, June 2019
- **Applied Vehicle Dynamics Course**, Autobahn Country Club, Joliet, Illinois, October 2018
- **Human Factors in Traffic Crash Reconstruction**, Institute of Police Technology and Management (IPTM), Fort Myers, Florida, November 2019
- **Symposium on Traffic Safety**, Institute of Police Technology and Management (IPTM), Orlando, Florida, May 2017
- **Traffic Crash Reconstruction 1**, Northwestern University Center for Public Safety, Fort Myers, Florida, May 2014
- **Introduction to Marine Accident Investigation**, American Boat & Yacht Council (ABYC), Ashburn, Virginia, October 2011
- **The Tire as a Vehicle Component**, Society of Automotive Engineers (SAE), Troy, Michigan, October 2011
- **Tire and Wheel Safety Issues**, Society of Automotive Engineers (SAE), Troy, Michigan, October 2011
- **Investigation of Motorcycle Crashes**, Institute of Police Technology and Management (IPTM), Fort Myers, Florida, January 2009
- **Occupant and Vehicle Kinematics in Rollover**, Society of Automotive Engineers (SAE), Fort Myers, Florida, January 2009
- **Injury Scaling: Uses and Techniques** Course, Association for the Advancement of Automotive Medicine (AAAM), Los Angeles, California, January 2008
- **Investigation of Commercial Vehicle Accidents**, ESI-Workshop, Presented by David Brill and William Dobson (IPTM Adjunct Faculty), Fort Myers, Florida, September 2007
- **Vehicle Accident Reconstruction Methods**, Society of Automotive Engineers (SAE), Fort Myers, Florida, October 2006
- **Injuries, Anatomy, Biomechanics & Federal Regulation**, Society of Automotive Engineers (SAE), Troy, Michigan, July 2006
- **ATV Safety Institute Rider Course**, April 2006
- **Motorcycle Safety Foundation Rider Course**, MSF, June 2004

Professional Affiliations/Honors

ASTM International

- Member

Society of Automotive Engineers (SAE)

- Member

American Society of Mechanical Engineers (ASME)

- Member

American Motorcyclist Association (AMA)

- Member
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Project Experience

- Accident Reconstruction
 - Novice Rider Studies
 - Off-Road Vehicle (ORV) Design, Handling, Stability, and Accident Investigation/Reconstruction
 - Motorcycle Operation, Handling, and Accident Investigation/Reconstruction
 - Golf Car Handling, Standards, and Accident Investigation/Reconstruction
 - Motorcycle Manuals and Safety Information Development
 - Recreational Boat Design, and Accident Investigation/Reconstruction
 - Human Anatomical Studies
 - Personal Watercraft (PWC) Crash Testing, and Accident Investigation/Reconstruction
 - Recreational Product Accident Analysis and Design
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Publications/Presentations

Guideline for Recreational Power Boat Stability, The Society of Naval Architects and Marine Engineers (SNAME), SNAME/IBEX Symposium, September 2019

Technical Review, CPSC All-Terrain Vehicle Research, Consumer Product Safety Commission (CPSC) Presentation, June 2019

Recreational Boating, Excessive Speed Research, American Boat & Yacht Council (ABYC), December 2016

"Applications of Failure Analysis Techniques in ATV Accident Investigation", Materials Science & Technology (MS&T 2015), ASM International, October 2015

"Risk Acceptance and Root Cause Analysis for Recreational Products and Activities", Sports & Fitness Industry Association (SFIA) Summit, Phoenix, Arizona, April 2014

"The Sinking of the Ethan Allen: Accident Reconstruction and Human Factors Methodology", The Society of Naval Architects and Marine Engineers (SNAME), National Harbor, Maryland, March 2012

"Demonstration and Description of Yamaha Rhino Novice Operation", Primary Researcher, April 2008
