

Randall R. Knuteson

Senior Consultant



Randy Knuteson is a Senior Consultant specializing in accident investigation and reconstruction for Engineering Systems Inc. (ESI). He is a recognized expert in the aviation accident investigation industry with 35 years in maintenance and manufacturing. He began his aviation career performing engine teardowns and overhauling fuel injection systems for piston engine aircraft. He later served as Director of Analytical and Air Safety for Kelly Aerospace Power Systems and was instrumental in transitioning the Garrett and RAJAY style turbocharging system lines from Honeywell to Kelly Aerospace. While in manufacturing, Mr. Knuteson served as an active party member, aiding the NTSB in investigating various aviation-related accidents.

Mr. Knuteson has authored numerous articles for AMT Magazine and other Aviation-related publications. He is an FAA-authorized instructor for engine, turbo and fuel systems in the recurring training of IAs throughout the United States and abroad. He is currently an Associate Instructor for the Reciprocating Engine Accident Investigation course at the DOT Transportation Safety Institute (TSI).

Mr. Knuteson has completed his education in Accident Safety and Security Management through the University of Southern California's Viterbi School of Engineering. He holds an FAA private pilot license and FAA Powerplant license and is an active member of GAMA's GAJSC team. Mr. Knuteson has reconstructed over 200 aviation accidents, incidents, and design evaluations and provides consultation on projects in a variety of disciplines at ESI.

Licenses & Certifications

- Aviation Powerplant License # 3574588
- Repairman's Certificate – CFS / KAPS # 2719578 (1996-2009)
- Repairman's Certificate – Firewall Forward # PP5R12FN (1989-1996)
- Private Pilot, Single Engine Land (1994)

Positions Held

Engineering Systems Inc., Aurora, Illinois

- Senior Consultant, September 2009 – Present

Kelly Aerospace

- Director of Analytical and Air Safety, 2004 – September 2009
- Director of Product Support for Kelly Aerospace, 1999 – 2004

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ESI Atlanta

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Peachtree Corners, GA 30092

Education

Accident Safety,
University of Southern California
Viterbi School of Engineering

Security Management,
University of Southern California
Viterbi School of Engineering

Bachelor of Arts in Public
Speaking/Communication
Bob Jones University, 1982

Areas of Specialization

Accident Investigation and
Reconstruction
Aircraft Fuel Injection and
Carburetion Operation,
Maintenance, and Design
Turbocharger, Valves and Controls
Operation and Maintenance
Aircraft Alternators, Starters,
Magnetos and Janitrol Heaters
Aircraft Engine Operation and
Maintenance

Consolidated Fuel Systems Inc.

- Director of Operations, 1996 – 1999

Aircraft Fuel Systems, Inc.

- Chief Injection Specialist, 1986 – 1989

Publications and Presentations

US Department of Transportation Safety Institute Class on Reciprocating Engine Accident Investigation

Guest Speaker; Annual General Aviation Air Safety Investigators Conference (GAASI)

Instructor; Turbo and Fuel Systems for Tech Schools and IA Renewals, 1998 – Present

Aviation Maintenance Technology Magazine:

- “Lear Romec Fuel Pumps – Pressure to Perform,” September 2003
- “Old Faithful: The Marvel(ous) Schebler Carburetor,” October 2000
- “Lear Romec Fuel Pumps (Rock Solid Simplicity with a Few Rough Edges),” July 2000
- “Boosting Your Knowledge of Turbocharging / Valves and Controls,” October 1999
- “Boosting Your Knowledge of Turbocharging,” July 1999
- “Continuous Flow Fuel Injection Systems,” November 1998
- “Troubleshooting Bendix (Precision) Fuel Injection Servos,” November 1997
- “The RAJAY Turbocharger,” October 1997

Light Plane Maintenance Magazine:

- “Teledyne Continental Motors Training – A Case for Higher Education,” August 1999

Continuing Education

- **Aircraft Propeller Accident Investigation Course**, Hartzell Propeller, 2024
- **Concepts NREC – Turbochargers: Advanced Integration & Designs for Internal Combustion Engines**
- **Aviation Powerplant License # 3574588**; Bakers School of Aeronautics
- **Lycoming Engine Service School** – Penn State / Pennsylvania College of Technology
- **GAMI Advanced Pilot Training in Engine Management**, 2010
- **Aviation Safety Management Program** - University of Southern California Viterbi School of Engineering, 2007
- **Human Factors in Aviation** - University of Southern California Viterbi School of Engineering, 2007
- **Aircraft Accident Investigation from a Maintenance Perspective** - PAMA/Embry Riddle Course, 2006
- **The Role of Technical Witness in Litigation** - University of Southern California Viterbi School of Engineering, 2006
- **Legal Aspects of Aviation Security** - University of Southern California Viterbi School of Engineering, 2006
- **Aircraft Accident Investigation** - University of Southern California Viterbi School of Engineering, 2006
- **Aeronautical Repair Station Assoc. (ARSA) class on Law for the Aviation Professional**, 2001
- **Combustion Engine, Economy, Emissions, and Controls** - University of Michigan College of Engineering, 2000

- **Allied Signal/Garrett Assembly and Production Test Training in Aircraft Valve and Control Systems**, 1999, 2000
- **AlliedSignal/Garrett Assembly and Production Test Training in Aircraft Turbocharging Systems**, 1997 and 2000
- **TCM Aviation Technician Advanced Engine Training Program**, 1998

Professional Affiliations

- ASM International
- Aircraft Maintenance Technology Society (AMT)
- ASTM Fuel Task Force Committee
- ASTM Committee Member- Standards and Guidance Materials for Aerospace Personnel
- American Society of Metals (ASM) Member
- FAA / GAMA System Component Failure Working Group Member
- General Aviation Air Safety Investigators (GAASI)
- International Society of Air Safety Investigators (ISASI)