

Randall R. Knuteson

Senior Consultant



Randy Knuteson is a Senior Consultant with Engineering Systems Inc. (ESi), specializing in aviation accident investigation and reconstruction. With 40 years of experience in aircraft maintenance and manufacturing, he is widely recognized as an expert within the aviation accident investigation community.

Mr. Knuteson began his aviation career performing engine teardowns and overhauling fuel system and turbo system components for piston engine aircraft in a Part 145 Repair Station. He later advanced to serve as Director of Analytical and Air Safety for Kelly Aerospace Power Systems (an engine accessory/component manufacturer), where he played a key role in transitioning the Garrett and RAJAY turbocharging system product lines from Honeywell to Kelly Aerospace. During his tenure in manufacturing, he also served as an active party member to the NTSB, contributing to investigations involving a range of aviation related accidents.

He has authored numerous technical articles for AMT Magazine, Light Plane Maintenance, and other aviation publications. In addition, Mr. Knuteson is an FAA authorized instructor for engine, turbocharging, and fuel system technologies, providing recurrent training for Inspection Authorization (IA) holders throughout the United States and internationally. He also serves as an associate instructor for the Reciprocating Engine Accident Investigation course at the U.S. Department of Transportation's Transportation Safety Institute (TSI).

Mr. Knuteson completed his studies in Accident Safety and Security Management through the University of Southern California's Viterbi School of Engineering. He holds an FAA Private Pilot License, an FAA Powerplant License, and remains an active member of GAMA's General Aviation Joint Safety Committee (GAJSC). To date, he has reconstructed more than 250 aviation accidents/incidents and participated in design analyses and consulting across a broad range of technical disciplines.

Contact Information

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ESi Atlanta

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Areas of Specialization

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

Education

Reciprocating Engine Accident Investigation Course. Department of Transportation. 2021

Accident Safety. University of Southern California Viterbi School of Engineering. 2007-2008

Security Management. University of Southern California Viterbi School of Engineering. 2007-2008

BA, Public Speaking/Communication. Bob Jones University. 1982

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., Atlanta, Georgia

- Senior Consultant, 2009 – Present

Kelly Aerospace

- Director of Analytical and Air Safety, 2004–2009
- Director of Product Support, 1999–2004

Consolidated Fuel Systems Inc.

- Director of Operations, 1996–1999

Aircraft Fuel Systems, Inc.

- Chief Injection Specialist, 1986–1989

Continuing Education

- **Aircraft Propeller Accident Investigation Course** – Hartzell Propeller, 2024
- **Turbochargers: Advanced Integration & Designs for Internal Combustion Engines** – Concepts NREC, 2005
- **Lycoming Engine Service School** – Penn State / Pennsylvania College of Technology, 2004
- **Advanced Pilot Training in Engine Management** – GAMI, 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, 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
- **Law for the Aviation Professional** – Aeronautical Repair Station Association, 2001
- **Combustion Engine, Economy, Emissions, and Controls** – University of Michigan College of Engineering, 2000
- **Garrett Assembly & Production Test Training in Aircraft Valve and Control Systems** – Allied Signal, 2000
- **Garrett Assembly & Production Test Training in Aircraft Turbocharging Systems** – Allied Signal, 2000
- **Garrett Assembly & Production Test Training in Aircraft Valve and Control Systems** – Allied Signal, 1999
- **Garrett Assembly & Production Test Training in Aircraft Turbocharging Systems** – Allied Signal, 1997
- **Aviation Technician Advanced Engine Training Program** – TCM, 1998

Professional Affiliations/Honors

ASM International

- Member

Aircraft Maintenance Technology Society

- Member

ASTM

- Committee Member, Fuel Task Force
- Committee Member, Standards and Guidance Materials for Aerospace Personnel

American Society of Metals

- Member

Federal Aviation Association

- Member, GAMA System Component Failure Working Group

General Aviation Air Safety Investigators

- Member, 2002 – 2026

International Society of Air Safety Investigators

- Member, 2007 – Present

Publications

“Lear Romec Fuel Pumps: Pressure to Perform,” **R.R. Knuteson**, Aviation Maintenance Technology Magazine, September 2003.

“Old Faithful: The Marvel(ous) Schebler Carburetor,” **R.R. Knuteson**, Aviation Maintenance Technology Magazine, October 2000.

“Lear Romec Fuel Pumps (Rock Solid Simplicity with a Few Rough Edges),” **R.R. Knuteson**, Aviation Maintenance Technology Magazine, July 2000.

“Boosting Your Knowledge of Turbocharging / Valves and Controls,” **R.R. Knuteson**, Aviation Maintenance Technology Magazine, October 1999.

“Teledyne Continental Motors Training: A Case for Higher Education,” **R.R. Knuteson**, Light Plane Maintenance Magazine, August 1999

“Boosting Your Knowledge of Turbocharging,” **R.R. Knuteson**, Aviation Maintenance Technology Magazine, pp. July 1999.

“Continuous Flow Fuel Injection Systems,” **R.R. Knuteson**, Aviation Maintenance Technology Magazine, November 1998.

“Troubleshooting Bendix (Precision) Fuel Injection Servos,” **R.R. Knuteson**, Aviation Maintenance Technology Magazine, November 1997.

“The RAJAY Turbocharger,” **R.R. Knuteson**, Aviation Maintenance Technology Magazine, October 1997.

Presentations

“Reciprocating Engine Accident Investigation,” **R.R. Knuteson**, US Department of Transportation Safety Institute

R.R. Knuteson, Annual General Aviation Air Safety Investigators Conference.

“Turbo and Fuel Systems for Tech Schools and IA Renewals,” **R.R. Knuteson**, 1998 – Present