



RANDALL R. KNUTESON

SENIOR CONSULTANT

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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 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.

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

Licenses

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)

September 2024

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

University of Southern California Viterbi School of Engineering – Aviation Safety Management Program, 2007

University of Southern California Viterbi School of Engineering – Human Factors in Aviation, 2007

PAMA/Embry Riddle Course on Aircraft Accident Investigation from a Maintenance Perspective, 2006

University of Southern California Viterbi School of Engineering - The Role of Technical Witness in Litigation, 2006

University of Southern California Viterbi School of Engineering - Legal Aspects of Aviation Security, 2006

University of Southern California Viterbi School of Engineering – Aircraft Accident Investigation, 2006

Aeronautical Repair Station Assoc. (ARSA) class on Law for the Aviation Professional, 2001

University of Michigan College of Engineering - Combustion Engine, Economy, Emissions, and Controls, 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

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

Professional Affiliations

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)

Positions Held

Engineering Systems Inc.

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

Consolidated Fuel Systems Inc.

Director of Operations, 1996 – 1999

Aircraft Fuel Systems, Inc.

Chief Inspector, 1989 – 1996

Firewall Forward

Fuel Injection Specialist, 1986 – 1989

Publications & 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

“Fuel Injection Nozzles,” July 1997

Light Plane Maintenance Magazine:

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