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MICHAEL K. BAUER
SENIOR CONSULTANT &
CHIEF REMOTE PILOT

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Michael Bauer is a professional Aerospace Engineer and a highly respected member of the investigative safety field offering over 25 years of industry experience helping teams succeed in both the public and private sectors.

Prior to joining ESi Mr. Bauer worked as an aircraft systems engineer and a vehicle recorders specialist for the NTSB's Office of Aviation Safety and Office of Research and Engineering and was one of the Safety Board's sUAV operators. He worked on multiple major domestic and international investigations and numerous field investigations analyzing systems component operations and failures, recovering flight data from various recording devices including FDRs, GPSs and avionics components. Prior to joining the NTSB, he worked in a variety of engineering roles, flight test engineer, systems and structures design, and certification for various aircraft and avionics manufacturers. He is an analytical investigator who methodically processes all data and ensures the correct answer is derived.

Mr. Bauer holds a Bachelor of Science in Aerospace Engineering from Embry-Riddle Aeronautical University and is a private pilot holding a remote pilot airman certificate. An original pilot, trainer and innovator with the NTSB drone investigative program, he has been a frequent presenter at the Experimental Aircraft Association (EAA), General Aviation Manufacturers Association General Aviation Air Safety Investigators (GA-ASI), and the International Society of Air Safety Investigators (ISASI) and is often requested to present at conferences, symposiums, and safety committees worldwide.

Areas of Specialization

Accident Investigation
Aviation and System Safety
Component Teardown
Component Testing
CVR/DFDR/Electronic Device Analysis
Domestic and International Investigations
Drone Mapping
Technical Reporting

Education/Training

Pursued graduate-level coursework in aeronautical science and aerospace safety at Embry-Riddle Aeronautical University, Worldwide Campus
B.S., Aerospace Engineering, Embry-Riddle Aeronautical University, Prescott, AZ, 1994
Instrument Rating Ground School, 2003
Total Quality Management Training, 1996

FAA Physiological Training, 2000
Aircraft Familiarization with Bombardier Global Express, Canadair CRJ-700/900, Gulfstream G450/G550, Boeing 767, Airbus 318/319/320/321

Professional Affiliations

ASTM International
Lawyer-Pilots Bar Association
American Institute of Aeronautics & Astronautics (AIAA)
International Society of Air Safety Investigators (ISASI)
Association for Unmanned Vehicle Systems International (AUVSI)

Certifications/Awards

NTSB Dr. John K. Lauber Science and Engineering Award
Awarded patent for “Enhanced graphical flight planning for a flight management system”
Private Pilot License
Remote Pilot Certificate
Honeywell/Bendix Trophy for Aviation Safety

Positions Held

Engineering Systems Inc., Plymouth, Minnesota
Senior Consultant, 2021 – Present

National Transportation Safety Board (NTSB), Washington, District of Columbia
Aerospace Engineer 2008-2021

Gulfstream Aerospace, Savannah, Georgia
Flight Test Engineer, 2006-2008

Rockwell Collins, Cedar Rapids, Iowa
Senior Systems Engineer, 2004-2006

Honeywell, Inc., Glendale, Arizona
Utilities Systems Engineer, 2002-2004

Bombardier-Canadair, Montreal, Quebec
Air Systems Integrator, 2001-2002

Bombardier Flight Test Center, Wichita, Kansas
Flight Test Engineer/Systems Engineer, 1996-2001

Cessna Aircraft Company, Wichita, Kansas

Engineer, 1994-1996

Publications/Presentations

“What Can Drones Do for Your Claims and Litigation?”, M.K. Bauer, Twin Cities Claim Association (TCCA) 2024 Fall Seminar, Bloomington, MN

“Techniques in Aircraft Accident Reconstruction: Past, Present, and Future”, **M.K. Bauer**, presented at the ESi Smart Sessions, Engineering Systems Inc., Plymouth, MN, 2021

“Use of sUAS in Developing Photogrammetric Model for Wind Simulation”, **M.K. Bauer**, W. English, M. Richards, and M. Grzych, International Society of Air Safety Investigators (ISASI) 2018 Seminar Dubai

Project Experience

Air France Flight 447, 2011

Gulfstream Aerospace G650 flight test accident, 2009

North American P-51D, Galloping Ghost, Reno air race accident, 2011

Boeing 787 lithium-ion battery fires, 2013

Scaled Composites SpaceShip Two in-flight breakup during test flight, 2014

Cal-Ore Life Flight PA-31T in-flight breakup, 2016

Turkish Airlines Flight 6491 controlled flight into terrain, 2017

Ameristar Charters Flight 9363 runway overrun, 2017

Boeing B-17 landing accident, 2019