

BARRY STRAUCH

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Transportation Safety and Human Factors

Experienced accident investigator led, managed, or participated in investigations of transportation accidents in all major transportation modes, involving Cessna 172s to Boeing 747s, small fishing vessels to nuclear submarines, small trucks to large motor coaches. Served as investigator in charge of major aviation accident investigations for the NTSB, as U. S. accredited representative to aviation accident investigations in Italy, South Africa, Portugal, and Colombia. Managed major marine accident investigations as a supervisory marine accident investigator. Managed investigator training courses at the NTSB Training Center and conducted accident investigation training for US and overseas government and industry personnel. Published numerous scientific articles on transportation safety issues. Expertise in accident investigation procedures, human factors, system safety, and safety enhancement programs.

Experience highlights

- Provided expertise in accident causation, with specialty in human factors, to marine labor organization
- Wrote expert opinions for defense and plaintiff counsels in transportation-related and labor law litigation
- Managed investigations in a major transportation modes
- Coordinated and taught transportation accident investigative techniques
- Represented NTSB at government and industry conferences, domestically and internationally
- Wrote textbook and scientific articles on human factors and safety
- Wrote major transportation accident investigation reports

PROFESSIONAL EXPERIENCE

2017 to Present Strauch Associates, LLC

- Provide consulting services to solve transportation-related problems
- Serve as expert witness in post-accident accident civil litigation for defense or plaintiff

1983 to 2016 National Transportation Safety Board (NTSB), Washington, DC, USA

National Resource Specialist-Human Factors
Supervisory Aviation Accident Investigator
Assistant Director for Instruction-NTSB Academy
Senior Air Safety Investigator
Human Performance Investigator

- Managed domestic aviation accident investigations and represented US in international investigations
- Developed analysis of safety issues and drafted proposals on methods to improve safety
- Wrote major aviation accident investigation technical reports
- Administered a division of major aviation and major marine accident investigation specialists
- Coordinated conduct of NTSB basic aviation and marine accident investigation courses
- Taught aviation accident investigation techniques to domestic and foreign personnel
- Presented accident investigation findings to Members of the NTSB
- Wrote and presented papers on transportation safety at international government meetings and scientific conferences

Fall 2001

George Mason University, Fairfax, Virginia

- Taught graduate-level seminar, “Human Error in Complex Systems,” in the Department of Psychology’s “Distinguished Practitioner” program.

1982-1983

Evaluation Technologies, Inc., Arlington, Virginia.

- Developed training program for Department of the Army

1980-1982

Embry-Riddle Aeronautical University, Daytona Beach, Florida

- Participated in and managed research projects addressing aviation human factors
- Taught advanced undergraduate psychology

1977-1980.

The MITRE Corporation, McLean, Virginia

- Participated in research and evaluation projects conducted for federal agencies.

1975-1977

The University of Louisville, Louisville, Kentucky

- Served as principal evaluator of a federally sponsored training contract designed to increase the delivery of dental care.
- Taught advanced undergraduate psychology

EDUCATION

- PhD, Educational Psychology, Pennsylvania State University
- MS, Educational Psychology, Pennsylvania State University
- BA, Psychology, New York University
- George Washington University, Certificate in Contemporary Executive Development

LICENSES AND RATINGS

- FAA Commercial Pilots License with instrument airplane, single engine land rating
- Certified flight instructor-Single engine land
- Certified flight instructor-Instrument airplane

SELECTED PUBLICATIONS

- Strauch, B. (2021). John Senders, human error, and system safety. *Human Factors*, online HFES.org.
- Strauch, B. (2017). Ironies of automation: Still unresolved after all these years. *IEEE Transactions of Human-Machine Systems*.
- Strauch, B. (2017). *Investigating human error: Incidents, accidents, and complex systems* (2nd Edition), Boca Raton, FL: CRC Press.
- Strauch, B. (2017). The automation by expertise by training interaction: why automation-related accidents continue to occur in sociotechnical systems. *Human Factors*, 59, 204-228.
- Strauch, B. (2016). Decision errors and accidents: applying naturalistic decision making to accident investigations. *Journal of Cognitive Engineering and Decision Making*, 10, 281-290.
- Strauch, B. (2015). Can we investigate safety culture in accident investigations, or should we? *Safety Science*, 77, 102–111.

- Strauch, B. (2010). Can cultural differences lead to accidents? Team cultural differences and sociotechnical system operations. *Human Factors*, 52, 246-263.
- Strauch, B., and Richey, F. (2003). Training facility will prepare safety experts for increasingly complex investigations. *ICAO Journal*, 58, 4, pp. 10-12, May 2003.
- Strauch, B. (2001). Integrating human factors into aircraft accident investigation. Paper presented at ICAO/FAA Conference on Aircraft Accident Investigation, Santa Cruz, Bolivia.
- Walker, M., Strauch, B., and McMenemy, J. (2000). Aviation safety investigation workshop report. In B. J. Hayward, and A. R. Lowe (Eds.). *Aviation resource management: Volume I* (pp. 393-398). Aldershot, UK: Ashgate
- Rodgers, M. D., Mogford, R. H., & Strauch, B. (2000). Post hoc assessment of situation awareness in air traffic control incidents and major aircraft accidents. In M. Endsley and D. Garland (Eds.), *Situation awareness analysis and measurement* (pp. 73-112). Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Strauch, B. (1999). Managing aviation human factors aircraft accident investigations. *Proceedings of the Human Factors and Ergonomics Society 43rd Annual Meetings*. Santa Monica, CA: Human Factors and Ergonomics Society.
- Strauch, B. (1998). Projected flight path displays and controlled flight into terrain accidents. *Proceedings 17th Digital Avionics Systems Conference*,
- Endsley, M. R. and Strauch, B. (1997). Automation and situation awareness: The accident at Cali, Colombia. *Proceedings of the Ninth International Symposium on Aviation Psychology*, Columbus, Ohio.
- Strauch, B. (1990). Factors Affecting Pilot Decision-Making in Rejected Takeoffs, SAE Technical Paper 902344

TELEVISION APPEARANCES:

- **Air Disasters:**
 - Panic over the Pacific Season 4-Episode 6
 - Fanning the Flames Season 5-Episode 5
 - Storming out Season 11-Episode 6
 - Slam Dunk Season 13-Episode 10
 - Taxiway Turmoil Season 15-Episode 4
 - Deadly Delivery Season 16-Episode 10
 - Terror over Michigan Season
 - Turboprop Terror

- **Marine Disasters**

- Queen of the North Season 2-Episode 3
- Death on the Staten Island Ferry Season 2-Episode 6

- **The Weather Channel**

- Discussing weather-related marine and aviation accidents-August 18, 2018