

Dr. Curt L. Lewis
PhD, P.E., CSP, FRAeS, FISASI
President/CEO
Curt Lewis & Associates, LLC

Dr. Curt Lewis is currently President/Owner of Curt Lewis & Associates, LLC. The consulting firm specializes in: Aviation/Airline Safety, Accident Investigation and Reconstruction, Industrial Safety, Forensic Investigation, Product Safety, System Safety, Automotive Crash Worthiness, Railroad Crossing Collision Investigations and Reconstruction, & Airport and Aircraft Security.

He served with American Airlines/AMR Corporation (AA) for seventeen years, as the Director System Safety and previously as the Corporate Manager of Flight Safety and Flight Operational Quality Assurance (FOQA) for American Airlines. Prior to American, he was a Lead System Safety Engineering Manager for LTV Aerospace Company, a Product Safety Manager for Texas Instruments Inc., a Flight Training Instructor for Boeing Commercial Airplane Group, and served as Chief Corporate Pilot and Industrial Safety Director for various industrial corporations. Currently he is serving as an Assistant Professor with Embry-Riddle Aeronautical University-Worldwide (Discipline Chair for Aviation Safety) instructing aviation, system, human factors, and industrial safety courses (**Outstanding Faculty Award – 2003**).

He has in excess of thirty-five years of safety experience as a professional pilot, safety engineer/director, and air safety investigator. Mr. Lewis holds an Airline Transport Pilot License (ATPL), Certified Flight Instructor Certificate (Airplane Single, Multiengine & Instrument); with over 10,000 hours of flight experience. In addition, he has earned technical Bachelors degrees in Aeronautical Engineering and Physics, a Masters degree in Aviation, System Safety & Human Factors, and a Ph.D. in Business Administration (Specialization: Safety Management), April 2014. He has earned the designation of **Certified Safety Professional (CSP)** from the Board of Certified Safety Professionals (BCSP) and served as a Board Director. He was elected the **BCSP Vice President for 2004** after serving as the Secretary-Treasurer (Managed \$2.8 mil budget). Mr. Lewis is a Licensed **Professional Engineer (P.E.)** in the discipline of safety engineering (Mass. # 40394), a Texas Professional Safety Source (TWCC # 1941), and **an ISO-9001:2000 Certified Quality Auditor (PA)**.

Dr. Lewis has published numerous safety articles, was a contributing editor to the AA pilot magazine - "Flight Deck;" managing editor of "AA Flight Safety" & "AA Occupational Safety" magazines and a frequent speaker at industry meetings and seminars, community service organizations, and corporations. He serves as a member of the Educational Advisory Councils for the Center for Aerospace Safety/Security Education (CASE) of Embry-Riddle Aeronautical University, the School of Aeronautics of Florida Institute of Technology (FIT), and the Department of Aeronautical Technology of Arizona State University. He is the former Chairman of the Air Transport Association (ATA) Flight Safety Committee. He served as President of the Industry Advisor Council for the Texas A&M University (Commerce) Industrial Engineering Department.

He has been listed in Who's Who in the Safety Profession, Who's Who in the Environment, Who's Who in the South & Southwest, Who's Who in Science & Technology, and Who's Who in America. Dr. Lewis is a professional member of the American Society of Safety Engineers (ASSE), System Safety Society (SSS), and the International Society of Air Safety Investigators (ISASI). He served as the President of the Dallas-Fort Worth ISASI Chapter and the current United States Councilor & President to the U.S. ISASI society. He has been elected an **ISASI "Fellow."** Mr. Lewis is the **2012 Winner of the ISASI Jerome Lederer Award**. He is also a **Fellow (FRAeS)** with the Royal Aeronautical Society.

Dr. CURT L. LEWIS,
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EDUCATION

Doctor of Philosophy - PhD – Business Administration, Northcentral University,
April 2014. Specialization: Safety Management, Dissertation: *“Identifying Core Competency Requirements for Aviation Safety Professionals.”* **Graduated with Distinction, GPA: 4.0**

Master of Aeronautical Science Degree, Embry-Riddle Aeronautical University, May 2000.
Specialization: aviation, system & industrial safety, human factors, risk management, regulatory compliance and human factors as related to the aerospace industry. Graduate Research Topic: "Flight Operational Quality Assurance – (FOQA)." **Graduated with Distinction, GPA: 4.0**

Bachelor of Arts Degree in Physics, University of Texas at Austin, August 1983. Curriculum background in electricity and magnetism, wave motion and optics, classical dynamics and electrodynamics, quantum mechanics, nuclear physics, thermodynamics, and electronic design techniques. First Minor: Mathematics. Background in advanced calculus, differential equations, vector calculus, linear algebra and matrix theory, Fourier analysis and Laplace transforms, Vector and Tensor analysis. Second Minor: Engineering. Background in the engineering sciences and computation. Four years of conversational Spanish. **Dean's Honor List: 1981, 1982, & 1983.**

Bachelor of Science Degree in Aeronautical Engineering, Arizona State University, May 1974. Curriculum background theoretical and practical applications in the areas of aerospace structures, aircraft design, aerodynamics, applied thermodynamics and mechanics, propulsion systems, combustion analysis, manufacturing processes, quality standards, aviation and industrial safety, aircraft accident investigation, computer science, and management.

SUPPLEMENTARY TRAINING

- o Advanced Accident Investigation Course, Embry-Riddle Aeronautical University (ERAU)
- o Aviation Safety Program Management Course, ERAU
- o Human Performance in Aviation Course, ERAU
- o Bloodborne Pathogen Training for Aircraft Accident Investigators, FAA-TSI
- o Aircraft Accident Investigation Course; National Transportation Safety Board (NTSB)
- o System Safety & Reliability Course; University of Washington
- o Underwriters Laboratories Plastic/Flammability Seminar
- o Product Safety Certification Course; EMXX Inc.
- o International Product Safety Seminar; EMACO, Inc.
- o Industrial Safety/Hygiene & OSHA Regulation Course; Transamerica Insurance Co.
- Hazardous Waste Operations & Emergency Response;

SUPPLEMENTARY TRAINING, cont.

- o Hazardous Materials Shipping Course; Flying Tigers Airline
- o Defensive Driving Instructor's Course; National Safety Council
- o 3-D Driving Instructor's Course; Hartford Insurance Co.
- o First Aid/CPR Instructor's Course; American Red Cross
- o Juran Quality Assurance Course, Fiber Optics & Optical Electronics, Basics of Supervision, LISP Programming, Digital Control Systems, PASCAL, Advanced Finite Elements; Texas Instruments, Inc.
- o The President's Management Course; American Management Association
- o Manager's Leadership Course, Performance Management System; American Airlines
- o Airbus A300, Boeing 757/767 & DC-9/MD-80 Training Course, American Airlines Flight Academy
- o Boeing 727, 737, & 747 Training Courses; Boeing Commercial Airplane Co.
- o Concepts of Fire Investigation Techniques
- o ISO-9001:2000 Certified Auditor/Lead Auditor Course

CERTIFICATIONS & PROFESSIONAL SOCIETIES

- o **Certified Safety Professional (CSP)**, Board of Certified Safety Professionals (BCSP), Specializations: Comprehensive Practice & System Safety, Served as a Director & Vice President to BCSP after serving as Secretary-Treasurer (Managed \$2.8 mil budget),
- o Licensed **Professional Engineer (P.E.)**, Discipline: Safety Engineering (Mass. # 40394)
- o Texas Professional Safety Source (TWCC # 1941)
- o ISO-9001:2000 Certified Quality Auditor-PA
- o Aviation Safety Program Management Certificate, ERAU
- o "Who's Who in Finance & Industry - 1996/1997," Marquis Who's Who (MWW).
- o "Who's Who in the World - 1995/1996," MWW.
- o "Who's Who in America - 1994/1995," MWW.
- o "Who's Who in Science & Technology - 1993/1994, 2000/2001," MWW.
- o "Who's Who in the South & Southwest - 1991/1992, 1995/1996," MWW.
- o "Who's Who in the Environment - 1991/1992," The Environmental Registry.
- o "Who's Who in the Safety Profession - 1990/1991," The Center for Safety Education
- o American Association of Airport Executives (AAAE) - Member
- o American Society of Safety Engineers (Professional Member)
- o International Society of Air Safety Investigators (Professional Member & ISASI "**Fellow – FISASI**"), President - DFW ISASI Chapter, U.S. Councilor & President of the U.S. ISASI Society, Member – Board of Fellows
- o Royal Aeronautical Society – **Fellow (FRAeS)**
- o System Safety Society
- o Delta Mu Delta – International Business Honor Society
- o Society of Automotive Engineers (SAE)
- o Helicopter International Association (HAI) – Sustaining Member

AWARDS

2012 ISASI Jerome Lederer Award (www.isasi.org)

LICENSE, RATINGS AND TIME

AIRLINE TRANSPORT PILOT (ATP)	TOTAL TIME:	10000
AIRPLANE SINGLE & MULTIENGINE PILOT IN COMMAND:		8500
CERTIFIED FLIGHT INSTRUCTOR MULTIENGINE:		8100
INSTRUMENT INSTRUCTOR TURBINE:		5900
MULTIENGINE INSTRUCTOR INSTRUCTOR:		1200

MILITARY

Captain, United States Air Force, Honorable Discharge

EXPERIENCE

2005 to Present: **PRESIDENT, Curt Lewis & Associates, LLC.** Firm is a multi-disciplinary scientific consulting firm. Specializing in: Aviation Safety, Accident Investigation and Reconstruction, Industrial Safety, Forensic Investigation, Product Safety, System Safety, Automotive Crash Worthiness, Railroad Crossing Collision Investigations and Reconstruction, Residential and Light Commercial Engineering, & Airport and Aircraft Security.

2000 to Present: **ASSISTANT PROFESSOR, Embry-Riddle Aeronautical University-Worldwide.** Discipline Chair for Aviation/Aerospace Safety. Responsible for instruction of aviation and industrial safety, aircraft accident investigation, and aviation management courses on undergraduate and graduate level. Review of graduate research projects. (**Outstanding Faculty Award – 2003/2004 – Fort Worth Center**)

2006 to Present: **ADJUNCT ASSISTANT PROFESSOR, Southeastern Oklahoma State University.** Responsible for instruction of industrial and system safety, and safety management.

2000 to 2005: **DIRECTOR SYSTEM SAFETY, American Airlines, Dallas, TX.** Responsible for the safety and quality assurance of flight, cabin, system safety engineering analysis, fault-tree, failure, trending & statistical analysis; security analysis, risk management, dispatch, airworthiness, and certification. Management of the accident/incident response and investigation, safety technology, Flight Operational Quality Assurance (FOQA), and internal audits. Managing Editor of "AA Flight Safety," "AA Occupational Safety" and "AA Safety" magazines.

1988 to 2000: **CORPORATE MANAGER OF FLIGHT SAFETY & FOQA, American Airlines, Dallas, TX.** Responsible for the safety and quality assurance of flight policy, accident prevention & risk management program for the airline. Management of accident/incident response and investigation, evaluate flight, cabin and human factors training, system safety engineering analysis, conduct crew audits, perform airport inspections, support trade studies/associations, point of contact/liaison with FAA, NTSB, JAA, ICAO, IATA, State Department and manufacturers. Manage FOQA program. Managing Editor of "AA Flight Safety" magazine. Developed Bloodborne Pathogen Training for Accident Investigators, perform in-flight industrial hygiene studies.

1986 to 1988 **LEAD SYSTEM SAFETY ENGINEER/PROJECT MANAGER, LTV Aerospace & Defense Co., Dallas, TX.** Responsible for management of system safety program/engineering/investigation of aerospace/defense products, provide technical expertise, customer interface, assure contractual safety and quality requirements (MIL-SPECS, OSHA, EPA, DOD, DOT, IATA, state & local), Held "Secret" Security Clearance.

1985 to 1986 **FLIGHT TRAINING INSTRUCTOR, Boeing Commercial Airplane Co., Seattle, WA.** Responsible for development, documentation, instruction, and quality assurance for flight systems, procedures and flight operations manual. Flight Instruction in the Boeing 727, 737, and 747 Fixed Based and Full Flight/Full Motion (Phase C & D) Aircraft Simulators.

EXPERIENCE, cont.

1984 to 1985 **PRODUCT SAFETY ENGINEERING MANAGER, Texas Instruments, Data Systems Group, Austin, TX.** Responsible for management of product/system safety compliance engineering and quality assurance, engineering investigation, testing, documentation, and regulatory compliance of computer systems and subassemblies to the standards of Underwriters Laboratories (UL), Canadian Standards Association (CSA), Verbandes Deutscher Elektrotechniker (VDE), and the Federal Communications Commission (FCC).

1977 to 1981 **CHIEF CORPORATE PILOT/CORPORATE, DIRECTOR of SAFETY, Mobley Industries,** 1976 to 1977 **Superior Iron Works Co.,** 1974 to 1976 **Southwestern Railway Co.** Responsible for flying and management of corporate aircraft and pilot staff. Also, formulation and direction of company safety policy/program, loss control management, regulatory compliance (OSHA, EPA, DOT, etc.), safety and quality audits, accident investigations.

SUPPLEMENTARY EXPERIENCE

Member of Educational Advisory Councils for Embry-Riddle Aeronautical University (ERAU), Florida Institute of Technology, and Arizona State University. Member of Safety Curriculum Committee – ERAU. Member of FAA Safety Management Focus Group.

Publish Internet based daily aviation safety newsletter and quarterly journal, called: "**Flight Safety Information,**" for over fifteen (15) years. Circulation in excess of 35,000 readers.

Publish Internet based weekly industrial safety newsletter, called: "**CL&A Safety News Weekly,**"

Circulation in excess of 1,000 readers.

Aviation Technical Advisor to Random Hearts Production, Inc, "Random Hearts" movie starring "Harrison Ford.". Advisement on aircraft accident investigation, accident site, morgue set, costumes, equipment and procedures.

PUBLICATIONS/PRESENTATIONS

"AA Safety," "AA Flight Safety Magazine" and "AA Occupation Safety Magazine,"
Managing Editor

"Accident/Incident Prevention Through Airport Safety",
Forum Magazine of the International Society of Air
Safety Investigators - December 1990.

Contributing Editor to American Airlines "Flight Deck"
Magazine

Lewis, C.L. & Mayer, T.J., "Airplane Stopping Performance," *Hazard Prevention*, p. 24-30, January/March, 1989.

Lewis, C.L. & Montgomery, J.F., "Air Travel Safety/Security for the Business Person," *Professional Safety*, p. 44-46, June, 1989.

Lewis, C.L., "Kathmandu - Below Approach," *American Airlines Flight Deck*, p. 6-8, May/Jun, 1993.

Lewis, C.L., "Loss of Control and Crash," *American Airlines Flight Deck*, p. 9-10, May/Jun, 1993.

PUBLICATIONS/PRESENTATIONS cont.

- Lewis, C.L., "Inadvertent In-Flight Slat Deployment Creates High Altitude Upset McDonnell Douglas MD-11," *American Airlines Flight Deck*, p. 13-18, Jul/Aug, 1994.
- Lewis, C.L., "Whoop, Whoop, Pull Up!," *American Airlines Flight Deck*, p. 7-13, Nov/Dec, 1994.
- Lewis, C.L. & Galarza, R., "Accident Prevention through Airfield Inspection," *American Airlines Flight Deck*, p. 28-31, Mar/Apr, 1995.
- Lewis, C.L. & Moran, C., "The NTSB and AA Flight Safety's Common Agenda - Mishap Prevention," *American Airlines Flight Deck*, p. 8-11, Nov/Dec, 1995.
- Lewis, C.L., "DC-9 Flight Into Terrain," *American Airlines Flight Deck*, p. 35-37, Jul/Aug, 1996.
- Lewis, C.L., "On Take-off Roll, MD-82 Strikes Cessna 441," *American Airlines Flight Deck*, p. 33-34, Jul/Aug, 1996.
- Lewis, C.L., "Emergency Evacuation," *American Airlines Flight Deck*, p. 16-18, Sep/Oct, 1997.
- Lewis, C.L., "Stickshaker and Stall: Check Your Wings for Ice," *American Airlines Flight Deck*, p. 12-16, Nov/Dec, 1997.
- Lewis, C.L., "Rejected Takeoff in Icy Conditions Results in Runway Overrun," *American Airlines Flight Deck*, p. 10-13, Jul/Aug, 1998.
- Lewis, C.L., "The Hidden Hazard," *American Airlines Flight Deck*, p. 6-8, Sep/Oct, 1998.
- Lewis, C.L., "A Gap in Training," *NBAA's Journal of Business Aviation Safety*, vol.13, p. 30-32, 1998.
- Lewis, C.L. & Darbo, J.H., "GPWS Reaction Times," *NBAA's Journal of Business Aviation Safety*, vol. 13, p. 59-62, 1998.
- Lewis, C.L., "Tire Failure on Takeoff," *NBAA's Journal of Business Aviation Safety*, vol. 13, p. 44-46, 1998.
- Lewis, C.L. & Darbo, J.H., "Avoiding Tailstrikes: Energy Management," *American Airlines Flight Safety*, p. 5-9, Nov/Dec, 1999.
- Lewis, C.L., "Flight 1420 - Little Rock Update," *American Airlines Flight Safety*, p. 2-4, Nov/Dec, 1999.
- Lewis, C.L. & Chidester, T., "Decision Making," *American Airlines Flight Safety*, p. 2-4, First Quarter, 2000.
- Lewis, C.L., "NTSB Public Hearing on American Airlines Accident Flight 1420," *American Airlines Flight Safety*, p. 4, First Quarter, 2000.

PUBLICATIONS/PRESENTATIONS cont.

Lewis, C.L., "The Evolving 'Glass Cockpit'," *American Airlines Flight Safety Anthology*, p. 100, 2001.

Lewis, C.L., "Aircraft Hydroplaning," *The Safety Approach – Alaska Airlines*, p.4-7, Fall 2001.

Book Chapters

Lewis, C.L., "Air Transportation Safety," Ch. 18, p. 432-435, Accident Prevention Manual, 11th Edition, National Safety Council, 1997.

Lewis, C.L., "Air Transportation Safety, and System Safety," Accident Prevention Manual, 12th Edition, National Safety Council, 2000.

Lewis, C.L., "Air Transportation Safety, System Safety, & Human Factors" Accident Prevention Manual, 13th Edition, National Safety Council, 2009.

Stolzer, A. J., Halford, C. D., & Goglia, J. J. (2011). Implementing safety management systems in aviation. In C. L. Lewis (Ed.), *Safety culture in your safety management system*. Burlington, VT: Ashgate Publishing.

Books

Lewis, C.L., "Flight Operational Quality Assurance (FOQA)," Embry-Riddle Aeronautical University Graduate Research Project, 2000.

Lewis, C.L., "Bloodborne Pathogens Training for the Aviation Accident Investigator," American Airlines Flight Safety Department, 1994.

Lewis, C.L., "Flight Safety Anthology," WWW.FSINFO.ORG, 2002.

Lewis, C.L., "Essays in Accident Investigation," WWW.FSINFO.ORG, 2002.

Lewis, C.L., "Essays in System Safety," WWW.FSINFO.ORG, 2003.

Lewis, C.L., "Essays in Industrial Safety," WWW.FSINFO.ORG, 2003.

Lewis, C.L., "Essays in Aircraft/Spacecraft Development – I, II, & III" WWW.FSINFO.ORG, 2003.

Lewis, C.L., "Essays in Airport Operations Safety – I, & II," WWW.FSINFO.ORG, 2003.

Journals

Lewis, C.L., "Flight Safety Information Quarterly Journal – First Quarter," WWW.FSINFO.ORG, 2002.

Lewis, C.L., "Flight Safety Information Quarterly Journal – Second Quarter," WWW.FSINFO.ORG, 2002.

Lewis, C.L., "Flight Safety Information Quarterly Journal – Third Quarter," WWW.FSINFO.ORG, 2002.

PUBLICATIONS/PRESENTATIONS cont.

- Lewis, C.L., "Flight Safety Information Quarterly Journal – Fourth Quarter, "
WWW.FSINFO.ORG, 2002.
- Lewis, C.L., "Flight Safety Information Quarterly Journal – First Quarter, "
WWW.FSINFO.ORG, 2003.
- Lewis, C.L., "Flight Safety Information Quarterly Journal – Second Quarter, "
WWW.FSINFO.ORG, 2003.
- Lewis, C.L., "Flight Safety Information Quarterly Journal – Third Quarter, "
WWW.FSINFO.ORG, 2003.
- Lewis, C.L., "Flight Safety Information Quarterly Journal – Fourth Quarter, "
WWW.FSINFO.ORG, 2003.
- Lewis, C.L., "Flight Safety Information Quarterly Journal – First Quarter, "
WWW.FSINFO.ORG, 2004.
- Lewis, C.L., "Flight Safety Information Quarterly Journal – Second Quarter, "
WWW.FSINFO.ORG, 2004.
- Lewis, C.L., "Flight Safety Information Quarterly Journal – Third Quarter, "
WWW.FSINFO.ORG, 2004.
- Lewis, C.L., "United States Society of Air Safety Investigators Newsletter – Third
Quarter," WWW.FSINFO.ORG, 2002.
- Lewis, C.L., "United States Society of Air Safety Investigators Newsletter – First
Quarter," WWW.FSINFO.ORG, 2003.
- Lewis, C.L., "United States Society of Air Safety Investigators Newsletter – Second
Quarter," WWW.FSINFO.ORG, 2003.
- Lewis, C.L., "United States Society of Air Safety Investigators Newsletter – Third
Quarter," WWW.FSINFO.ORG, 2003.
- Lewis, C.L., "Aircraft Accident Investigation Manual," WWW.FSINFO.ORG, 2003.
- Lewis, C.L., "Aviation Human Factors Manual," WWW.FSINFO.ORG, 2003.
- Lewis, C.L., "Flight Safety Information Journal – Helicopter Ground Resonance,"
WWW.FSINFO.ORG, 2006.
- Lewis, C. L., Copsey, D. D., & Montgomery, C. F. (2010). NTSB most wanted: Cockpit image
recorders. *Flight Safety Information Journal*, 1.
- Lewis, C. L., Copsey, D. D., & Montgomery, C. F. (2010). Unmanned aerial vehicles: Are they
safe for civilian use? *Flight Safety Information Journal*, 2.
- Lewis, C. L., & Copsey, D. D. (2010). Flight safety information daily newsletter: In this issue.
Flight Safety Information, 1-269.

Lewis, C. L., & Copsey, D. D. (2010). Flight safety information daily newsletter: Graduate capstone project survey. *Flight Safety Information, 1-37*.

PUBLICATIONS/PRESENTATIONS cont.

Lewis C. (2012, June). Latest Safety Initiatives. Speech presented at Pakistan Air Line Pilots' Association (PALPA) Aviation Safety Seminar, Karachi, Pakistan.

Brauer, R & Lewis, C. (2013, September). Benchmarking Aviation Safety Professionals through Certification. Paper presented at ISASI- 2013 Seminar, Vancouver, Canada.

Hinckley, C. & Lewis. C (2013, October). Lessons Learned – Aviation Disaster Experiences. Presentation at Flight Safety Foundation – International Aviation Safety Seminar, Washington, DC.