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Visiting Instructor. B-777 Captain operating worldwide international routes. Safety researcher, lecturer, author, key-note speaker.

Expert Witness:

- March – June 2023: Twentieth Judicial Circuit Court, Charlotte County, Florida, Case Number 22001437CA In Re Yaider A Hernandez Bazo vs. Fort Myers Broadcasting Company: Analysis and expert report in support of Defendant in case involving Ultralight aircraft.
- January 2023: Pierce County Case Number 2019FA000004 In RE the marriage of Paula Mary West and Marcus Luke West:
    - Factors related to economic and financial issues.
- December 2022: Expert witness for major litigation still ongoing.
- November 2022: Testimony before the President and Judges, 31st Chamber, Section 1, Paris Judicial Court, Purvis du Tribunal de Paris:
    - Testimony on case involving companies Airbus SAS and Air France involving the crash between Rio De Janeiro and Paris on June 1st, 2009 at the request of the Alter Union.

Aviation Operational Experience:

- February 2017-Present. Subject Matter Expert, Safety, Risk Analysis, Safety Engineering, Scientific and Technical Research. Supporting operations and flight safety departments as well as Air Line Pilots Association (ALPA).
- November 2015-February 2017: Aircraft Technical and Engineering Chairman, Air Line Pilots Association (ALPA) MEC.
- 2015: Interim Chairman Accident Investigation, ALPA.
- September 2009- October 2012: Aviation Safety Instructor. Taught courses and managed instructors and coordinated safety recurrent ground school classes, including program development, instructor training and scheduling and coordinating with other departments. Was part of a core team to establish the criteria and write the manuals for the SMS programs, ASAP, FOQA, LOSA. Researched and authored numerous articles for Safe Skies and other publications
- March 2009-2013: Member NTSB Operations Group, Narita accident investigation. Coordinated with legal counsel for numerous aspects, including separate police investigation. Developed concept of kinematic disconnect for large transport aircraft. Unofficially, worked as vice-party coordinator and provided oversight for all aspects of

the investigation. These included operations, systems, aircraft performance. Also primary liaison to JTSB.

- March 2011 – 2016: Performance analysis for MD-11. Re-wrote landing guidance section of company Aircraft Flight Manual. Identified issue of short period Omega and Zeta function interaction in longitudinal handling qualities, validated with mathematical performance analysis.
- 1997-2004: Safety Investigator. Party Coordinator (Investigator in Charge for FPA/ALPA) on MD-11 Accident, EWR, July 31, 1997. Authored numerous Air Safety and technical articles for FPA and ALPA publication. In addition, supported several major accident investigations.

Supporting Operational Experience:

- Member of the Royal Aeronautical Society Flight Operations Group. Member of the FOG Skills Decline sub-group.
- 2018 - Present: Supported and facilitated workshop on System Theoretic Process Analysis (STAMP) in support of the Partnership for Systems Approaches to Safety and Security (PSASS), Massachusetts Institute of Technology. Provided initial training and support to several air carriers.
- July 2015 – Present: Voting member SAE S-7 Flight Deck and Handling Qualities Standards for Transport Aircraft working group. Chair of the 2030 Aircraft Design Standards working sub-group.
- February 2010-2013: Design Team Member Commercial Aviation Safety Team Joint Safety Implementation Team – Aircraft State Awareness (CAST JSIT-ASA), representing Airlines for America (A4A). CAST was formed under the White House Commission on Aviation Safety and Security).
- 2010-2012: Coordinating and administrating “pilot” version for Flight Operational Reporting System to allow reporting and tracking of operational issues, overseeing all aspects of the project.
- March 2007-March 2009: Special projects for Flight Operations, including Flag/Domestic, Flight Delay QDM, VDR’s, SAI and EPI audits, ATOS compliance and authoring Business Justification Documents. Coordinated and supported flight delay tracking system currently in use.
- 2008: Supported FAA ATC training on weather and coordination with aircraft for convective weather avoidance procedures.
- 2004-2007: Flight Operations manager. Oversight of flight dispatch and operations for global flight operation. Special projects included CDC, Security and Volcanic Ash procedure design.
- January 2003-2004: Line Check Airman, MD-11. International Operations project to develop global international procedures. Worked on developing International website, “Airport Briefing pages” and training program.

- June 2002-November 2003: Chairman, ALPA Aircraft Design and Operations Committee, managing staff and numerous volunteers to work on research and attend numerous Industry conferences and events.
- 2001-2005: Member Joint Implementation Measurement Data Analysis Team (CAST JIMDAT). This team was tasked with advising the CAST executive committee by developing metrics to establish which safety initiatives provided the greatest reduction in accident rates per dollar spent
- 2001-2003: FPA representative to CAST-JSIT-LOC (Loss of Control). JSIT-LOC Automation and Human Factors Team Leader.
- 1997-2004: Safety Investigator. Party Coordinator (Investigator in Charge for FPA/ALPA) on MD-11 Accident, EWR, July 31, 1997. Authored numerous Air Safety and technical articles for FPA and ALPA publication. Performed operations, systems and performance analysis.
- 1997-1999: Safety Chairman. Established the Pilots Association Air Safety Committee and served as Safety Chairman for my airline, organized and managed entire safety structure, supervised and coordinated training for staff and volunteers. This included interviewing and hiring of staff, approving expenditures and working closely with legal counsel on numerous issues.
- 1995-1996. Pilots Association Steering Committee Member for my airline. Was one of 7 pilots who led the effort to organize a new union for pilots.
- 1994-1995: Member ALPA National Charting and Instrument Procedures Committee, specializing in ICAO PANS-OPS.
- 1987-1990. Southern California Regional Leader, Continental Airlines ALPA organizing
- committee. Oversight and training for numerous volunteers working on grass-roots pilot union organizing campaign.

Recognition and Activities

- Elected Fellow of the Royal Aeronautical Society
- Member International Society of Air Safety Investigators
- Member Society of Automobile Engineers ○ S-7: Flight Deck Handling Qualities for Transport Aircraft Committee ○ G- 27: Lithium Battery Packaging Committee
    - G – 10: Aerospace Behavioral Engineering Technology Committee ○ G – 27: Modeling, Simulation, Training for AV Tech Committee
- Member Resilience Engineering Association
- Member IEEE
- Member AIAA
- Member Flight Safety Foundation
- Member Air Force Association
- Member Human Factors and Ergonomics Society

Public Speaking

- 2024. Air Charter Safety Foundation. *System Safety.*
- 2024. Keynote Speaker for NorCal Business Aircraft Association. *Cognitive Bias.*
- 2023. Royal Aeronautical Society, London. *Hazard Analysis Methods.*
- 2022. Air Line Pilots Association Safety Week, Washington, D.C. *System Safety.*
- 2022. SMS Industry Forum hosted by American Airlines. *Keynote Speaker.*
- 2022. Nuclear Regulatory Commission Regulatory Information Conference. Hazard Analysis for Nuclear Automation. *Technical panelist*.
- 2020. World Aeronautical Training Summit. *Stress exposure training.*
- 2020. World Aeronautical Training Summit. *Improving Pilot Training and Completion Rates Utilizing Personality Assessment.*
- 2019. ISASI. *Investigating Accidents in Highly Automated Systems: Systemic Problems Identified through Analysis of Air France 447.*
- 2019. ISASI. *Updating the Concept of Cause in Accident Investigation.*
- 2019. World Aeronautical Training Summit. *Practical Utility of Personality in Flight Ops and Training.*
- 2019. STAMP workshop. *Analysis using STAMP of the UPS Birmingham Accident*
- 2018. ISASI SERC. *Analysis using STAMP of the UPS Birmingham Accident.*
- 2018 Flight Safety Foundation, Business Aviation Safety Summit. *A Systems Engineering Approach to Safety Performance Indicators and Accident Casuality* (with Dr. John Thomas, MIT).
- 2018 World Aviation Training Summit, Orlando, FL. *Training to Facilitate Adaptive Capacity in Automated Systems.*
- ERAU, Advanced accident investigation course, guest lecturer.
- 2017. Mid-South Aviation Weather Conference. *Shortfalls in Aviation Weather Training.*
- 2017 through 2018: FAA FAAST Team, LOC-I
- 2017. Resilience Engineering Association. Liege. *Just Culture Accident Model.* • 2017. Keynote Speaker InfoShare Dallas, TX. *Weather Information Sharing*
- 2017. Keynote Speaker Infoshare. Dallas, TX. *The trouble with tablets.*
- 2017. ISASI annual plenary seminar, with Dr. John Thomas, MIT*: Investigating Accidents that are a Consequence of Complex Systems. A Causal Analysis using System Theory.* (with Dr. John Thomas, MIT).
- Presenter, Resilience Engineering Association, Liege, BE: *Just Culture Accident Model*.
- Lecture on Air France 447 accident, Paramus, NJ.
- Presenter ISASI SERC 2017.
- Presenter ISASI SERC 2016: *Extending Safety I to Safety II*
- Presenter ISASI SERC 2015: *A Look Back at a Closed Investigation*
- Presenter ISASI SERC 2014: *Just Culture Accident Model* • Lectures on Air France 447 accident, Pasadena, California.
- Lecture on Air France 447 accident, Memphis, Tennessee.
- Lecture on Air France 447, Sun ‘n Fun Aviation Expo, Florida.

Publications

- Lawrenson, A., Rodrigues, C. C., Malmquist, S., Greaves, M., Braithwaite, G., & Cusick, S. K. (2023). *Commercial Aviation Safety, 7th Edition*. McGraw Hill Professional.
- Malmquist & Foat (2023). Weather and Radar Training: Aerospace Magazine (upcoming)
- Malmquist, Carstens & Dahlstrom (2022). Human Factors in Simulation and Training. *Almost like the real thing: The hidden limits in flight simulation and training*.
- Malmquist & Rapoport (2021). The Plane Paradox: More Automation should mean More Training. *Wired Magazine. https://www.wired.com/story/opinion-the-plane-paradoxmore-automation-should-mean-more-training/*
- Carroll & Malmquist (2021). Resilient Performance in Aviation. In *Advancing Resilient Performance* (pp. 85-95). Springer, Cham.
- Malmquist & Rapoport. (2020). FAA needs new leadership. *San Francisco Chronicle. https://www.sfchronicle.com/opinion/openforum/article/FAA-needs-new-leadershipbring-in-Sully-15832537.php*
- Malmquist & Rapoport (2020). These questions must be answered before the Boeing 737 MAX flies again. *Detroit Free Press. https://www.freep.com/story/opinion/contributors/2020/11/29/boeing-737-maxungrounded/6411840002/*
- Chaparro, M. E., Carroll, M., & Malmquist, S. (2020). Personality trends in the pilot population. *The Collegiate Aviation Review International*, *38*(2).
- Malmquist and Rapaport (2020). Grounded: How to solve the aviation crisis.
- Malmquist, Leveson, Larard, Perry & Straker (2019). Increasing Learning from Accidents: A Systems approach. http://sunnyday.mit.edu/UPS-CAST-Final.pdf
- Leveson, Straker & Malmquist (2019). The problem with probable cause. http://sunnyday.mit.edu/ISASI-Cause.pdf
- Thomas & Malmquist (2017). *Learning from Accidents that are the result of complex systems*. Available from: http://sunnyday.mit.edu/Thomas-Malmquist-ISASI.pdf
- Rapoport & Malmquist (2017). Angle of Attack: Air France and the Future of Aviation Safety
- Malmquist, S, Vincenzi, D., & Liu, D. (2014). Kinematic Effects in Large Transport Aircraft. International Journal of Aviation, Aeronautics, and Aerospace, 1(3), 5.
- Just Culture Accident Model (2017). Conference paper. Resilience Engineering Association. Liege. Available from: https://www.researchgate.net/publication/320270005_Just_Culture_Accident_Model
- Authored numerous articles for in-house ALPA publications as well as Curt Lewis' Flight Safety News.
- Blog articles: https://airlinesafety.blog/ • Why do we need hard limits on jet engines?
- A new approach -Thoughts on Automation
- Proper attire on airplanes
- Questions on the Moscow Superjet crash
- Increasing Learning from Accidents A Systems Approach illustrated by the UPS Flight 1354 CFIT Accident

- Is the Boeing Max safe
- Pilots are not the problem
- Thoughts on stalls
- Microburst detection and avoidance – A new method to identify the threats
- It's More Than Angle of Attack
- Automation, Pilots and Preventing Accidents – Reprinted from Flight Safety Information
- Certification and limits
- Why Do We Accept Hard Limits on Jet Engines?
- The AOA Problem – What We Can Do About It
- What We Can Learn From Lion Air 610: Thoughts on Lion Air – Reprinted from Curt Lewis Flight Safety Information news
- Is your job safe from the perils of automation or free trade?
- High Altitude Flying: What every pilot needs to know – A new Online Course from Curt Lewis Aviation
- Single-Piloted Commercial Aircraft
- Take a Fatigue "Selfie"!
- Know your aircraft – System Training
- Just turn it off!
- Practical Methods for Accident Investigation
- Just Culture Accident Model • High Altitude Flying and Radiation • How much fuel?
- Angle of Attack book released!
- A dry microburst experience
- The Actors of Resilience
- Are pilots going to be eliminated?
- A probabilistic world
- "The Fall of Saigon: FedEx Aircraft Mechanic Reflects on Journey from War 40 Years Later" –An amazing story
- Indonesia AirAsia Flight 8501
- High Altitude Stalls – how well do you understand them?
- Salient Symbols and the HUD
- Are you an "expert"? Does your airline train you as an expert?
- Video of a Downburst
- Kinematic Effects • Can you see the biz jets?
- Asiana in SFO
- Hand-Flying and Attention to Detail
- Fit for Duty
- The role of Cognitive Bias in Aircraft Accidents
- Investigative Bias
- Hindsight Bias
- Cold Fuel
- How to get the most out of Carbon Brakes
- Slow-Onset Hypoxia: An insidious killer

- Airborne Weather Avoidance
- Weather Depiction – What Air Traffic Controllers need to know
- Landing Kinematics
- Phraseology in International Air Transport Operations
- Aircraft Pilot Coupling (APC) PIO Transport Aircraft
- Weather Avoidance – Transport Aircraft Operations
- The Effect of Negative Pitch Changes on Landing Performance
- Stabilized Approaches
- Cold Temperature and Wind Effects on Altimetry
- Windshear • Inflight Fire

Selected Media Appearances

- San Francisco Chronicle.
- Fox 10 Phoenix. Aviation Safety • USA Today: Boeing timeline
- CNN: Boeing events.
- Fox: Boeing
- Fox 35 Orlando: Any system is vulnerable at any given time
- Yahoo News: Man arrested for temporarily blinding police pilot
- WESH: Florida airports on-time performance
- CNBC: Air rage is complicating travel in North America and Europe.
- Houston Chronicle: Did Boeing, aviation industry heed lessons from 2009 Air France
- Washington Post: Boeing 737 Max 8
- ABC News: Investigators reportedly suspect pilot's mistakes led to fiery Russian plane crash
- The Gazette: United Technologies under scrutiny for Boeing 737 Max failure
- Spectrum News 13: Safety concerns delay launch of some 5G cell towers
- The New York Times: A worry for some pilots: Their hands on flying skills are lacking
- NPR: Boeing Safety Engineer Filed Ethics Complain Last Year
- USA Today: Graphics: What happened and what's next for Boeing's 737
- Santa Cruz Sentinel: FAA investigating another SFO landing mishap
- CNN: Boeing has been here before. What four fatal crashes from the 1960s say about the 737 Max crisis
- The Wall Street Journal: Modern planes can fly themselves, is that always a good thing?
- Miami Herald: Panic in cockpit moments before Atlas Air crash
- Everett Herald: Not just the 737: Angle-of-attack sensors have had problems.
- Numerous additional appearances can be found:
    - Television and radio appearances. ABC, CBS, NBC, NPR, Fox, Spectrum News and more.
    - Print media. CNN, NPR, ABC, Wall Street Journal, San Francisco Chronicle, Mercury News, Washington Post, Miami Herald and more.

Certificates and Ratings:

- ATP - Single and Multi-Engine Land, Type Ratings: B-777, MD-11, B-727, EMB-110.
- Flight Engineer - Turbojet. Served as Flight Engineer on B-727 and B-747.
- Advanced and Instrument Ground Instructor.
- CFI-MEI (expired).

Employment History:

- 2018-Present: Florida Institute of Technology: Visiting Professor, College of Aeronautics.
- 1987 - Present: Federal Express Corp. (Flying Tigers, 1987-89)
  Pilot, Air Operations in the following capacities: Captain B-777, Captain MD-11, Captain B-727, F/O MD-11, F/O B-727, F/O DC-8, S/O B-747, S/O B-727. Supported development of HUD.
- 2004-2007: Flight Operations Duty Officer: Exercised management and operational control of flight dispatchers for global air operations.
- 2003-2004: Line Check Airman, MD-11
- 1986-87: WestAir Airlines
  Line Captain, Training Captain and Line Check Airman, Flight Standards - EMB-110.
- 1983-85: Alpha Air
  Captain Air Operations, C-402.
- 1978-1985: Cable Air
  Flight Instructor for primary, instrument, multi-engine and ATP applicants
- 1977: Jenny's Flying Service Private pilot ground instructor

Education:

- Florida Institute of Technology. Doctoral student.
- Florida Institute of Technology MSc - Summa Cum Laude

- University of Illinois – Urbana/Champaign
  Mathematics
- Embry -Riddle Aeronautical University BSc
- Mount San Antonio College A.S.

Additional Course Work:

- NTSB Accident Investigation
- MIT System Theoretic Accident Method and Processes (STAMP) workshop