

ANTONIO IGNACIO CORTÉS, PH.D.
Associate Dean for the School of Graduate Studies

College of Aviation, Embry-Riddle Aeronautical University
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SUMMARY

ACADEMIC: Head of Graduate School, Associate Dean of College, Chair of Science Department.
RESEARCH: NextGen Flight Deck Displays, Loss-of-Control, Human Factors, Airfoil Icing, Airline Andragogy.
TEACHING: Award-winning Associate Professor, Government Instructor, Industry Workshop Facilitator.
SAFETY: FOQA/ASAP Manager, Engineering Air Safety Investigator, Safety Director, SMS Developer.
OPERATIONS: MD-80 Airline Pilot, Learjet Instructor Pilot, C-141 Captain, NASA Boeing 777 Simulator Pilot.
OUTREACH: Over 100 presentations in 9 countries (Spanish & English) and over 70 articles published.
PERSONAL: Spaniard with U.S. Citizenship, Bilingual, Secret Security Clearance, Travel to 72 countries.

ACADEMIC DEGREES

Ph.D. Business Administration (Aeronautical Science Management)

Northcentral University, Prescott, AZ (accredited by ACBSP & NCACS)
Research Focus: Team Performance in High Reliability Organizations
Dissertation Title: *A Theory of False Cognitive Expectancies in Airline Pilots*

M.S. Aeronautical Science (Operations)

Embry-Riddle Aeronautical University, McGuire AFB, NJ (accredited by SACS)
Research Focus: Light Aircraft Flight Safety

B.A. Physics (Astronomy)

University of North Carolina at Chapel Hill, NC (accredited by SACS)

EMPLOYMENT HISTORY

EMBRY-RIDDLE AERONAUTICAL UNIVERSITY

ASSOCIATE DEAN FOR THE SCHOOL OF GRADUATE STUDIES

2 Jun 2017 –

ASSOCIATE PROFESSOR OF GRADUATE STUDIES

College of Aviation, 600 S. Clyde Morris Blvd, Daytona Beach, FL 32114 USA

- Supervising 12 full-time faculty and staff plus part-time personnel in tasks related to teaching, research, and service.
- Recruiting and developing a strong and competent faculty to meet the University curriculum requirements.
- Performing final review of doctoral dissertations and master's theses.
- Overseeing marketing, admissions, scheduling, student advisement, and faculty credentialing for two graduate programs.
- Establishing and growing a former academic department into a school by tripling enrollment and adding 5 degree programs.
- Maintaining academic excellence in the school's teaching and research efforts.
- Determining appropriate credentials for school faculty members and verify those credentials for each faculty member.
- Providing strong leadership in encouraging research activities by the department faculty.
- Developing and maintaining communication with professional groups and industry to ensure adequacy of programs.

ASSOCIATE DEAN, COLLEGE OF AVIATION

7 Oct 2016 – 1 Jun 2017

ASSOCIATE PROFESSOR OF APPLIED AVIATION SCIENCES

College of Aviation, 600 S. Clyde Morris Blvd, Daytona Beach, FL 32114 USA

- Provided interim leadership of college during the absence of the Dean.
- Coordinated college operations, to include measuring college performance and deadline compliance.
- Oversaw academic program assessments, grade arbitration, student advisement, curriculum changes.
- Directed planning of special events, analyses, projects, and tours.
- Assured the occupational and environmental safety of 8 buildings and 17 laboratories.
- Created the college's Immersion Lab which features an F-18 aerial refueling virtual reality simulator.
- Managed the college's virtual and augmented reality research and teaching innovation initiative.
- Supervised doctoral research on pilot reaction to icing-induced aerodynamic stalls.
- Served as Chair of the Advisory Council for the Bombardier Safety Standdown.
- Oversaw development of college metrics for performance dashboard.
- Directed organizing of National Training Aircraft Symposium and Military Air Safety Conference.
- Taught Airport SMS course for the Miami-Dade Aviation Department.
- Assembled and led college Assessment Task Force to continuously evaluate academic programs.
- Authored 5 new chapters for the new edition of the world's leading commercial aviation safety book.

CHAIR, DEPARTMENT OF APPLIED AVIATION SCIENCES

4 Jul 2014 – 6 Oct 2016

ASSOCIATE PROFESSOR OF APPLIED AVIATION SCIENCES

600 S. Clyde Morris Blvd, Daytona Beach, FL 32114 USA

- Managed 85 employees in meteorology, aerospace safety, air traffic management, and space operations.
- Oversaw research, education, and student advisement in 5 undergraduate degree programs.
- Supervised operation of 9 laboratories and the processing of 500 GB of daily weather data.
- Taught aerospace safety at 4 levels: undergraduate, master's, doctoral, and professional.
- Ensured faculty and courses scheduled to support 600 students.
- Managed 10 collaborative agreements with industry and other academic institutions.
- Established Suborbital Space Flight Simulator, Mission Control Center, and Spacesuit Operations Lab.
- Oversaw reaffirmation of accreditation for 4 programs by the Aviation Accreditation Board International.
- Crafted partnerships for cancer research, spacesuit testing, physiology research, astronautics training.
- Researched emerging issues in SMS, NAS-integration of suborbital space vehicles, artificial intelligence.
- Served as Vice Chair of the Advisory Council for the Bombardier Safety Standdown.
- Hired 5 full-time professors, 1 full-time administrative staff, and 5 adjunct faculty.
- Developed new liaison position for Career Services: department Student Success Coordinators.
- Organized 20 department meetings, 2 research workshops, and hosted 2 international conferences.
- Developed strategic plans for 5 programs and for department for 2016-2021 period.

U.S. FEDERAL GOVERNMENT

FLIGHT ANALYSIS PROGRAMS MANAGER (GS-0018-14)

12 May 2010 – 9 Jun 2014

Engineering Branch, Aviation Safety Division, Headquarters U.S. Air Force Safety Center

HQ AFSEC/SEFE, 9700 G. Ave SE, Kirtland AFB, New Mexico, 87117-5670 USA

- Co-managed the highest-priority engineering quality assurance program of the Air Force: the \$16M Integrated Safety Information System, overseeing 15 contractors and 11 officers collecting and analyzing 41 gigabytes of monthly flight data from 6,000 flights of 10 fleets of aircraft to produce 80 yearly reports.
- Coordinated 20 yearly engineering analyses for aircraft accident investigations, assessing the viability of technical mitigations for identified mishap causes, determining continued airworthiness of systems.
- Performed psychographic measurements of meso and macro organizational attitudes.
- Managed risk scientifically based on aggregate analysis of quantitative data.
- Datamined and accomplished analyses using IBM Cognos Business Intelligence Tool.
- Supported rulemaking and policy-writing in resilience engineering, safety culture, and safety management.
- Taught engineering investigation to 404 senior officers in 13 sessions of Safety Board President Course.
- Taught hazard analysis to 767 officers in 29 safety management courses.
- Authored 26 confidential articles on risk management through flight data monitoring.

- Authored 37 publications, 5 hazard alerts, and 9 case studies on risk management and leadership.
- Performed 21 conference presentations on human factors and accident prevention.
- Participated in 40 flight mishap investigations as the engineering support duty officer: researched solar interference with flight computers and engineering analysis that restored operations to Joint Strike Fighter.
- Pioneered quantification of risk from hazards detected with flight data monitoring.
- Applied research in organizational normalization of deviance from accepted standards at austere locations.
- Organized and taught first Military Flight Data Monitoring course in collaboration with Cranfield University in the UK, taught Just Culture to the Egyptian Air Force safety engineering team in Cairo, engineering investigation to the Colombian Air Force in Bogotá, and hosted ISASI workshop in Canada.

EMBRY-RIDDLE AERONAUTICAL UNIVERSITY

ASSOCIATE PROFESSOR OF AERONAUTICAL SCIENCE

1 Aug 2004 - 11 May 2010

600 S. Clyde Morris Blvd, Daytona Beach, FL 32114 USA

- Taught 1350 undergraduate and graduate students in 55 undergraduate and graduate courses including organizational reliability, aviation safety, human factors, flight analysis, and airline operations.
- Produced flight training research on “lean hiring” entered into the Record of the U.S. Congress.
- Lead research effort to develop and then direct the Train-the-Trainer Program at JetBlue Airways.
- Created aeronautics curriculum on Communication and Coordination Protocols that Build Shared Cognition.
- Designed and first-to-teach university aeronautics capstone course.
- Organized Study Abroad Program in Spain and taught business course on High Reliability Organizations.
- Developed Contaminated Airfoil Training Aid to simulate aerodynamic hazards of wing icing.
- Taught airline safety officers accident investigation at the Center for Aerospace Safety/Security Education.
- Obtained highest performance scores during annual evaluations.
- Earned Outstanding Teaching Award for the Embry-Riddle Aeronautical University Daytona Beach Campus.
- Earned Outstanding Performance Award from Department of Aeronautical Science.
- Earned Faculty Dedication & Passion Award and Most Inspiring Award from Alpha Omicron Alpha Society.
- Keynote conference speaker on organizational leadership in high reliability organizations.
- Pioneered concept of Values-Framed Instructional Design to acculturate airline employees.
- Edited 273-page flight training manual detailing Boeing 747-400 flight techniques.

MIDWEST AIRLINES

MD-88 PILOT AND AIR LINE PILOT ASSOCIATION (ALPA) SAFETY OFFICER

20 Mar 2000 - 31 Jul 2004

Flight Operations Department, Midwest Airlines, 6744 S. Howell Ave, Oak Creek, WI 53154 USA

- Piloted 1500 hours as first officer on 160,000-pound jet seating 116 passengers under 14 CFR Part 121.
- Operated from New York, Atlanta, Chicago, Los Angeles, Washington D.C., Boston, Dallas Fort-Worth
- Supervised seven captains as the Chair of the ALPA technical committee on fuel conservation.
- Represented ALPA National for aircraft wiring safety and ALPA liaison to Milwaukee airport firefighters.
- Identified \$4.3 million in annual MD-80 and DC-9 savings as the Chair of the Fuel Conservation Committee.
- Represented operational concerns at Aircraft Wiring & Inert Gas Generation Group in Washington, D.C.
- Authored 4 ALPA safety publications on pilot-firefighter coordination and wiring safety.

UNITED STATES AIR FORCE

C-141B CAPTAIN AND CHIEF OF SAFETY

2 Oct 1996 – 19 Mar 2000

6 Airlift Squadron, McGuire Air Force Base, New Jersey, USA

Supervisor: Lt Col Jack Gundrum (no contact information known)

- Commanded cargo and passenger missions across the globe, including the efficient and safe transport of Presidential and State Department diplomatic cargo, flew NASA spaceflight equipment to tracking stations in the South Atlantic, resupplied embassies

in developing world, and flew emergency medical evacuations.

- Operated out of Paris, Frankfurt, London, New York, Tokyo, Moscow, Cairo and on Atlantic/Pacific Tracks.
- Performed aerial refueling 15-20 feet behind heavy tanker aircraft, experiencing variable wake turbulences.
- Supervised 5 personnel as the Director of Safety, performing mishap investigations and unit briefings.
- Instructed Crew Resource Management to several hundred squadron personnel.
- Earned Outstanding Strategic Airlift Aircrew Award from Air Mobility Command.
- Earned Distinguished Service Award from Federal Aviation Administration for Aviation Safety Counseling.

LEARJET 35A CHECK AIRMAN & MANAGER OF LEARJET FLIGHT STANDARDS

1 Aug 1992 – 1 Oct 1996

76th Airlift Squadron, Ramstein Air Base, Germany

- Commanded missions transporting cabinet-level officials of world governments throughout Europe, Southwest Asia, Africa, and North America. Flew combat missions into Somalia and Bosnia-Herzegovina, and provided airlift for the Congressional denuclearization effort in Russia and Ukraine.
- Directed Air Force Learjet Standards Program and was lead flight examiner for Learjet pilots in Europe.
- Acted as liaison officer to President and Mrs. Clinton by U.S. Air Forces in Europe.
- Oversaw Functional Check Flight Program for all Air Force C-21A Learjets in Europe.
- Flight instructed NASA Astronauts at Space Shuttle transoceanic abort landing contingencies in Morocco.
- Earned Company Grade Officer of the Year Award.
- Earned Commendation Medal, 2 Aerial Achievement Medals, 2 Achievement Medals, the Kuwait Liberation Medal, and the Armed Forces Expeditionary Medal.

CONSULTING

CONVERGENT PERFORMANCE , Colorado Springs, CO Principal Consultant, Human Factors	2017
BOMBARDIER SAFETY ADVISORY COUNCIL , Montreal, Canada Chair and Vice Chair	2014-2016
BOMBARDIER SAFETY STANDDOWN , Wichita, KS Planning Committee Member	2007-2015
GE AVIATION ADVANCED TECHNOLOGY DIVISION , Tampa, FL U.S. Marine Thought Acceleration and Accuracy Program (Enhanced Human Performance)	2012
ATLANTIC SOUTHEAST AIRLINES , Atlanta, GA Flight Crew Leadership Training Manual	2010
DUKE ENERGY AVIATION DEPARTMENT , Charlotte, NC Airfoil and Engine Icing Hazards and Related Human Factors Training Program	2010
NASA HUMAN SYSTEMS INTEGRATION DIVISION , Ames Research Center, Moffett Field, CA Research Associate for Cockpit Situation Display	2008
FIDELITY NATIONAL FLIGHT DEPARTMENT , Jacksonville, FL Cold Weather Operations Training Program	2008
WYRE AEROSPACE GROUP , Lexington Park, MD Cognitive Error Management Training Program	2008
JETDIRECT AVIATION , Burlingame, CA Captain Assertiveness Leadership Training	2008
AERO CLUB SAN PEDRO SULA , La Lima, Honduras Situational Awareness and Emergency Management Training	2008
LIEFF GLOBAL LLP , San Francisco, CA Expert Aviation Accident Witness for Miami Division of the Southern District Court of Florida	2007
CREARE ENGINEERING RESEARCH AND DEVELOPMENT , Hannover, NH Fatigue Measurement and Management Methods	2004
NASA FLIGHT DECK DISPLAY LAB , Ames Research Center, Moffett Field, CA B-777 Simulator Pilot for Distributed Air-Ground Traffic Management Trials	2003-2004
CENTER FOR ADVANCED AVIATION SYSTEM DEVELOPMENT , MITRE, McLean, VA Simulator Research Pilot for Cockpit Display of Traffic Information	2002
CENTER FOR AEROSPACE TECHNOLOGY , Research Triangle Institute, Hampton, VA NASA AGATE Simulator Research Pilot for Cockpit Weather Data Link	2000

PROFESSIONAL TRAINING

Threat and Error Management Course, Southern California Safety Institute, Colombia	2012
Operational Safety Course, Consejo Colombiano de Seguridad, Colombia	2012
Aviation Mishap Investigation Course, USAF Safety University, New Mexico	2011
Safety Investigation Board President Course, USAF Safety University, New Mexico	2011
Chief of Safety Course, USAF Safety University, New Mexico	2011
Contracting Officer Representative Course, USAF, New Mexico	2010
Strategic Planning-Programming-Budget Course, Science Applications, Washington D.C.	2010
Aircraft Upset Recovery Course, M & N Aviation Safety Standdown, Colorado	2010
Advanced Flight Safety Course, Air Line Pilots Association, Washington State	2001
Basic Flight Safety Course, Air Line Pilots Association, Canada	2001
Crew Resource Management Facilitator Course, Flight Safety International, Texas	1999
Aircraft Mishap Investigation Course, Southern California Safety Institute, New Mexico	1998
Flight Safety Officer Course, Southern California Safety Institute, New Mexico	1999
Joint Firepower Control Course, USAF, Florida	1993
International Counter-Terrorism Course, USAF, Florida	1993
Survival-Evasion-Resistance-Escape Course, USAF, Washington State	1992
Joint Jet Pilot Training, NATO, Texas	1991 - 1992

CERTIFICATES

FAA L-300 Type Rating	1999
FAA Airline Transport Pilot (multi-engine land)	1999
FAA Multi-Engine Instructor	1999
FAA Certified Flight Instructor-Instrument	1999
USAF Senior Pilot Wings	1998
USAF C-141B Air-Refueling Qualified Aircraft Commander	1997
USAF C-21A Evaluator Pilot	1995
USAF C-21A Instructor Pilot	1994
FAA Learjet-Series Type Rating	1993
USAF C-21A Aircraft Commander	1993
NATO Aeronautical Rating of Pilot (military wings)	1992
FAA Certified Flight Instructor (single-engine)	1990
FAA Commercial Pilot (single-engine land)	1990

CURRENT ASSOCIATIONS

Flight Safety Foundation.
International Society of Air Safety Investigators (Full Member M06238).
Delta Mu Delta Business Honor Society, Lambda Eta Chapter.

SPECIAL SKILLS

LANGUAGES: Bilingual English/Spanish (read-write-speak like native)
FLIGHT TIME: 5000 Total Hours, 3700 Multi-Engine Jet, 1600 Pilot-in-Command, 1200 International
AIRCRAFT FLOWN: T34, T37, T38, T41, BE24, C21, C141, MD80, PA28/38, PA44, AG5B, C152/172, DA20
BACKGROUND CHECK: Secret Security Clearance, Access National Agency Check with Inquiries, 2010

AWARDS

Nominated the winner of the ISASI Rudy Kapustin Scholarship	2013
Nominated the winner of the HFES Oliver Keith Hansen Outreach Award	2013
Nominated, Dissertation of the Year Award, Northcentral University	2011
Air Force Organizational Excellence Award, U.S. Air Force Safety Center	2011
Outstanding Performance Award, Department of Aeronautical Science	2010
Faculty Dedication & Passion Award, Alpha Omicron Alpha Honor Society	2010
Outstanding Teaching Award, Embry-Riddle Aeronautical University	2007
Most Inspiring Faculty Award, Alpha Omicron Alpha Honor Society	2005
Honor Award, National Aeronautics and Space Administration	2004
Distinguished Service Award, Federal Aviation Administration	2000
Flight Safety Award, Federal Aviation Administration	1999
Outstanding Strategic Airlift Crew Award, U.S. Air Force	1997
Aerial Achievement Medal (Oak Leaf Cluster), U.S. Air Force	1996
Air Force Achievement Medal (Oak Leaf Cluster), U.S. Air Force	1996
Company Grade Officer of the Year, 76 th Airlift Squadron, U.S. Air Force	1995
Air Force Commendation Medal, U.S. Air Force	1995
Distinguished Graduate, U.S. Air Force Reserve Officer Training Corps	1990

GRANTS, CONTRACTS, FUNDING

A Multifaceted Approach to the Distribution of Research Results. Principal Investigator for ERAU proposal, 2017. Applied Research Associated, Inc. through the Transportation Research Board Airport Cooperative Research Program 11-05 Task 1.

Human Factors Considerations for Flight Deck Information. Co-investigator for proposal, 2017. Federal Aviation Administration SE2025 TORP 5083.

Simulation of Winged Suborbital Vehicle Flight Phases. Principal Investigator, 2015. Grant NNX15AW75H, NASA STEM Education and Accountability Projects. \$10K. Project complete.

MQ-9 Reaper Logistics Line Operations Safety Audit. Principal Investigator for proposal, 2013. RAND Corporation.

Airline Pilot Advanced Andragogical Methods (training contract), JetBlue Airways University, Lead Principal Investigator, 2006. Proposal was approved and contract awarded. \$55K. Project complete.

AUTHORED WORKS

Cusick, S., Cortés, A., & Rodrigues, C. (2017). *Commercial aviation safety* (6th ed.). New York, NY: McGraw-Hill.

Maris, J., Cortés, A., Conway, B., Liu, D., Anderson, C., and Habashi, W. (2017). *An archival analysis of stall warning system effectiveness during airborne icing encounters.* (Unpublished doctoral dissertation). Embry-Riddle Aeronautical University, Daytona Beach, FL.

Broyhill, C., Brady, T., Truong, D., Cortés, A., & Kelly, T. (2016). *The effects of IS-BAO implementation and leadership performance on safety culture in business aviation flight operations.* (Unpublished doctoral dissertation). Embry-Riddle Aeronautical University, Daytona Beach, FL.

Cortés, A. (2016, April). *Accident precursor learning, sensemaking, and intervention through artificial intelligence.* Paper presented at the International Society of Air Safety Investigators Military Air Safety Workshop, Albuquerque, NM.

Brady, T., Stolzer, A., Brickhouse A., Cortés, A., McCune, D., Raghavan, J., and Freiwald, D., (2015). Marbles: The application of Input-Output concepts to Safety Management Systems. *Journal of Aviation Technology and Engineering*: Vol. 5: Iss. 1, Article 6. <http://dx.doi.org/10.7771/2159-6670.1124>.

- Al-Romaihi, S., Brady, T., Smith, M.J., Sabel, J., & Cortés, A. (2014). *National culture: Understanding the impact of cross-culture on airline pilots' safety performance in the Middle-East and North Africa (MENA) Region*. (Unpublished doctoral dissertation). Embry-Riddle Aeronautical University, Daytona Beach, FL.
- Cortés, A. (2014, April). Unstable approaches in MQ-9 operations. *Air Force Blue Four News*, 2-7.
- Cortés, A. (2014, March). Help us improve your analyses. *Air Force Blue Four News*, 2-5.
- Cortés, A. (2014, February). MFOQA: only one of the new generation programs in the SWOM swarm. *Air Force Blue Four News*, 2-5.
- Cortés, A. (2014, January). Low airspeeds during aerobatics. *Air Force Blue Four News*, 2-4.
- Cortés, A. (2013, December). T-6 data flow, MQ-9 analyses, and the B-1 joins the MFOQA program. *Air Force Blue Four News*, 1-2.
- Cortés, A. (2013, November). Landing at high elevation airfields. *Air Force Blue Four News*, 2-4.
- Cortés, A. (2013, October). USAF Flight Operations Quality Assurance FY13 report. *Air Force Blue Four News*, 24-26.
- Cortés, A. (2013, September). Reluctance to go around from unstable approaches. *Air Force Blue Four News*, 2-3.
- Cortés, A. (2013, August). Operations outside of automated protections. *Air Force Blue Four News*, 2-4.
- A Cortés & R Rogers. (2013, September 23). When thinking breaks down. [Web log comment]. Retrieved from <http://www.safetystanddown.com/when-thinking-breaks-down/>
- Hatcher, G., & Cortés, A. (2013, July). Preventing tire and brake damage in Afghanistan. *Air Force Blue Four News*, 5-6.
- Joslin, R., Stolzer, A., Cuevas, H., Truong, D., Cortés, A., & Shapell, S. (2013). *Validation of new technology using legacy metrics: Examination of SURF-IA alerting for runway incursion incidents*. (Unpublished doctoral dissertation). Embry-Riddle Aeronautical University, Daytona Beach, FL.
- Cortés, A. (2013, June). Reduced attentional responses to repeated nuisance warnings. *Air Force Blue Four News*, 2-3.
- Cortés, A. (2013, May). High pressure altitude impact on GPWS/TAWS algorithms for terrain warnings. *Air Force Blue Four News*, 2.
- Cortés, A. (2013). *Special technical report: Proposed parameters for human factors monitoring initiative through MFOQA*. Unpublished manuscript, U.S. Air Force Safety Center Engineering and Technical Services Branch.
- Cortés, A. (2013, April). Flight data monitoring and automated risk management. *Air Force Blue Four News*, 2-3.
- A Cortés & R Rogers. (2013, May 13). Do birds have safety standdowns? [Web log comment]. Retrieved from <http://www.safetystanddown.com/do-birds-have-safety-standdowns/>
- Cortés, A. (2013, March). KC-135 landing descent rate and g-force analysis. *Air Force Blue Four News*, 2-3.
- Cortés, A. (2013). *Special technical report: Detecting wake turbulence encounters and precursors of near departures from controlled flight via the routine analysis of flight data*. Unpublished manuscript, U.S. Air Force Safety Center Engineering and Technical Services Branch.
- Cortés, A., & Armstrong, K. (2013). *Workshop report: Adding user guidance to military flight operations quality assurance analyses*. Unpublished manuscript, U.S. Air Force Safety Center Engineering and Technical Services Branch.
- Cortés, A. (2013, April). Flight data analyses and automated aviation risk management. *Air Force Blue Four News*, 2-3.

- Cortés, A. (2013, February). Enabling technology for flight data analyses. *Air Force Blue Four News*, 2-3.
- Grasky, B., & Cortés, A. (2013, March). Control before Performance: The fighter MFOQA Program. *The Combat Edge*, 21, 5, 10-13.
- Cortés, A. (2013, January). Flight data analysis to enhance fuel efficiency. *Air Force Blue Four News*, 2.
- A Cortés & R Rogers. (2013, February 15). Empowered Accountability is an Expectation to Detect and Act. [Web log comment]. Retrieved from <http://www.safetystanddown.com/empowered-accountability-is-an-expectation-to-detect-and-act/>
- Cortés, A. (2012). *Engineering business line report: Human Performance Event Reporting System and the Marine Thought Acceleration and Accuracy Program*. Unpublished manuscript, General Electric Aviation Advanced Technology Division.
- Cortés, A. (2012). MFOQA annual aviation summary. October Blue Four News, 12(10), 3-5.
- Cortés, A. (2012). The human factors and physics of unstable approaches. Blue Four News Special End of Year Edition, 12(10), 3-5.
- Cortés, A. (2012). F-16 G-Exercise special interest study. August Blue Four News, 12(8), 1-2.
- Cortés, A., & Tibbs, K. (2012). Pro-active safety data programs. January Blue Four News, 12(1), 1-2.
- Cortés, A., & Tibbs, K. (2012). Cultural evolution of Air Force safety. February Blue Four News, 12(2), 1-2.
- Tibbs, K., & Cortés, A. (2012). Introduction to proactive safety assessments. June Blue Four News, 12(6), 1-2.
- Cortés, A., & Tibbs, K. (2012). Historic milestones for proactive safety. July Blue Four News, 12(7), 1-3.
- A Cortés. (2012, February 17). Captains of Fate: 4 Dimensions of Safety. [Web log comment]. Retrieved from <http://www.safetystanddown.com/captains-of-fate-and-the-four-dimensions-of-safety/>
- Cortés, A. (2011). *A theory of false cognitive expectancies in airline pilots*. Unpublished doctoral dissertation, Northcentral University.
- Cortés, A. (2011, November). Safety by the numbers. The USAF MFOQA Programme. *On Target: New Technology. Royal Canadian Air Force Journal, Directorate of Flight Safety*, 1, 16-19.
- Cortés, A. (2010, December). Safety in the 21st Century is evidence-based and proactive. *The United States Air Force Journal of Aviation, Ground, Space, and Weapons Safety*, 4(1), 36-37.
- Cortés, A. (December, 2010). What if your aircraft could talk? MFOQA is here. *The United States Air Force Journal of Aviation, Ground, Space, and Weapons Safety*, 4(1), 36-37.
- Cortés, A. (2010). *Captain leadership training manual*. Unpublished manuscript, Atlantic Southeast Airlines Captain's Upgrade Course, Atlanta, GA.
- Cortés, A. (2010, May). *Flight crew leadership*. Paper presented at the 4th Bombardier-Learjet Safety Standdown , European Business Aviation Convention and Exhibition, Geneva, Switzerland.
- Cortés, A. (2009). *Can you find the clean wing? Contaminated airfoil training aid (CATA)*. Unpublished manuscript, Embry-Riddle Aeronautical University at Daytona Beach.
- Cortés, A. (2008). Learning theoretical concepts through community problem solving: Service-learning in flight safety courses. *Journal of Aviation/Aerospace Education & Research*, 18, 39-66.
- Cortés, A. (Ed.). (2007, August). *Flying big iron. Advanced piloting concepts for air transport category aircraft (4th ed.)*. Available from the Embry-Riddle Aeronautical University Bookstore, 600 S. Clyde Morris Blvd., Daytona Beach, FL 32114.

- Cortés, A. (2007). Don't be a hero, just eject! In J. Clark (Ed.), *Eagle Tales. Accounts of Embry-Riddle Professors Before they were Faculty* pp. 39–47). Jacksonville, FL: BlueWater Press, LLC.
- Cortés, A. (2006). Professors as architects of student learning. *Journal of Aviation/Aerospace Education & Research*, 15, 11-16.
- Cortés, A. (2006). Using informal student feedback to enhance learning. *Journal of Aviation/Aerospace Education & Research*, 15, 9-11.
- Cortés, A. (2006, February). Using situational scenarios to build critical analysis skills. *Center for Teaching and Learning Newsletter*. Embry-Riddle Aeronautical University, 3, 1, 3-5.
- Cortés, A. (2006). Organizational acculturation at JetBlue airways through values-framed instruction design. *Journal of Aviation/Aerospace Education & Research*, 16, 9-25.
- Cortés, A. (2005). *Train-the-Trainer agreement between Embry-Riddle Aeronautical University and JetBlue*. Unpublished manuscript. Embry-Riddle Aeronautical University.
- Cortés, A. (2005, April). Using kickoff questions to jumpstart each class session. *Center for Teaching and Learning Newsletter*. Embry-Riddle Aeronautical University, 2, 2-4.
- Cortés, A. (2003, January). Beware of controllers bearing gifts. *MEssenger*. Midwest Air Line Pilots Association, 1, 3-6.
- Cortés, A. (2002, November). Save our future, one drop at a time. *MEssenger*. Midwest Air Line Pilots Association, 11, 5-8.
- Cortés, A. (2002, May). The hidden lives of renegade wires. *MEssenger*. Midwest Air Line Pilots Association, 5, 5-7.
- Cortés, A. (2002, March). While the dust settles. *Journal of the Air Line Pilots Association*, 2, 30-31.
- Cortés, A. (2002, March). A sleeping giant wakes up and gets noticed. *MEssenger*. Midwest Air Line Pilots Association, 3, 8-10.
- Cortés, A. (2002, January). Composites and the recent A300 accident. *MEssenger*. Midwest Air Line Pilots Association, 1, 2-5.
- Cortés, A. (2001, November). The general's foam masters, Part III. *MEssenger*. Midwest Air Line Pilots Association, 11, 5-9.
- Cortés, A. (2001, October). The general's foam masters, Part II. *MEssenger*. Midwest Air Line Pilots Association, 10, 5-9.
- Cortés, A. (2001, September). The general's foam masters, Part I. *MEssenger*. Midwest Air Line Pilots Association, 9, 5-9.
- Cortés, A. (2000, July). Gremlin lessons. *MEssenger*. Midwest Air Line Pilots Association, 7, 7-8.
- Cortés, A. (2000, March). Niner steps to professionalism. *Warbirds Magazine*, 23, 22-25.
- Cortés, A. (2000, January). Part II, Gone with the prop: a tale of southern safety savvy. *Safe Flyer*. FAA Flight Standards District Office 17, 7, 4-5.
- Cortés, A. (1999, November). Part I, Gone with the prop: a tale of southern safety savvy. *Safe Flyer*. FAA Flight Standards District Office 17, 3, 3-6.
- Cortés, A. (1998, November). Aircraft runway incursions, the escalating threat to you. *Flying Safety Magazine*, 26-31.

PUBLIC SPEAKING

- Cortés, A. (2017, June). Estrategias para aumentar el desempeño operativo reduciendo la distracción y autocomplacencia [Strategies for increasing operational performance by reducing distraction and complacency]. In S. Roth (Chair), *37th Annual International Operating Conference and Trade Show*. Presentation in Spanish at the International Liquid Terminals Association, Houston, TX.
- Cortés, A. (2016, November). Influence and the three core values. Presentation at AFROTC Detachment 157, Daytona Beach, FL.
- Cortés, A. (2016, September). Bottom-up leadership for safety. In J. Shiebelhut (Chair), *Knowledge ace. Advanced safety training*. Workshop at the 20th Bombardier-Learjet Safety Standdown, Wichita, KS.
- Cortés, A. (2016, September). HazardShare 2016. In J. Shiebelhut (Chair), *Knowledge ace. Advanced safety training*. Workshop at the 20th Bombardier-Learjet Safety Standdown, Wichita, KS.
- Cortés, A. (2016, September). Alphabet soup. What's with all the safety program acronyms? In J. Shiebelhut (Chair), *Knowledge ace. Advanced safety training*. Workshop at the 20th Bombardier-Learjet Safety Standdown, Wichita, KS.
- Cortés, A. (2016, September). Cultura justa: Malabarismo que salva [Just culture: the balancing act that saves]. In J. Betancur (Chair), *XV Seminario de Seguridad Operacional*. Presentation in Spanish at the Colombian Air Force Safety Summit, Bogotá, Colombia.
- Cortés, A. (2016, September). Expectativas: Piensa dos veces [Expectancies: Think twice]. In J. Betancur (Chair), *XV Seminario de Seguridad Operacional*. Presentation in Spanish at the Colombian Air Force Safety Summit, Bogotá, Colombia.
- Cortés, A. (2016, September). Think twice – Save the day. In T. Sharp (Chair), *Expectation bias*. Keynote presentation at the 8th Southern California Aviation Association Safety Standdown, Carlsbad, CA.
- Cortés, A. (2016, September). The wild blue yonder. Presentation at AFROTC Detachment 157, Daytona Beach, FL.
- Cortés, A. (2016, June). Loss of control - inflight: Academic research update. In S. Santos (Chair), *7th Pan American Aviation Safety Summit*. Panel presentation at the Latin American & Caribbean Air Transport Association, Panamá City, Panamá.
- Cortés, A. (2016, June). Human factors: False cognitive expectancies. In S. Santos (Chair), *7th Pan American Aviation Safety Summit*. Main session presentation at the Latin American & Caribbean Air Transport Association, Panamá City, Panamá.
- Cortés, A. (2016, April). Safety sharing through artificial intelligence. In D. Harper (Chair), *Military Air Safety*. Workshop at the International Society of Air Safety Investigators Military Chapter, Albuquerque, NM.
- Cortés, A. (2015, October). Leadership and followership for peak operational performance. In J. Shiebelhut (Chair), *Knowledge ace. Advanced safety training*. Workshop at the 19th Bombardier-Learjet Safety Standdown, Wichita, KS.
- Cortés, A. (2015, October). HazardShare 2015. In J. Shiebelhut (Chair), *Knowledge ace. Advanced safety training*. Workshop at the 19th Bombardier-Learjet Safety Standdown, Wichita, KS.
- Cortés, A. (2015, September). Looking for higher. Presentation at AFROTC Detachment 157, Daytona Beach, FL.
- Cortés, A. (2015, June). Academic research to prevent loss of control in-flight accidents. In S. Santos (Chair), *6th Pan American Aviation Safety Summit*. Panel presentation at the Latin American & Caribbean Air Transport Association, Medellín, Colombia.
- Cortés, A. (2015, June). Emerging opportunities: Using FOQA to measure human factors. In S. Santos (Chair), *6th Pan American Aviation Safety Summit*. Workshop at the Latin American & Caribbean Air Transport Association, Medellín, Colombia.
- Cortés, A. (2015, May). Safety Management Systems. Presentation at the Mishap Reduction Workshop of the Air National Guard, Albuquerque, NM.
- Cortés, A. (2015, March). At the edge of life. Presentation at the meeting of the American Association of Safety Engineers, Daytona Beach, FL.

Cortés, A. (2015, March). Service before self. Presentation at the AFROTC Detachment 157 Cadet Wing, Daytona Beach, FL.

Cortés, A. (2015, February). The ROI of safety outreach. Presentation at the Bombardier Aerospace Headquarters. Montreal, Canada.

Cortés, A. (2014, October). Making the “right call” for safety. In D. Etter (Chair), *Aviation safety standdown*. Keynote presentation at the Inaugural Safety Standdown of the Aeronautics Division of the Idaho Transportation Department, Boise, ID.

Cortés, A. (2014, October). Safety ethics. A welcome distraction? In J. Shiebelhut (Chair), *Knowledge ace. Advanced safety training*. Presentation at the 18th Bombardier-Learjet Safety Standdown, Wichita, KS.

Cortés, A. (2014, October). HazardShare 2014. In J. Shiebelhut (Chair), *Knowledge ace. Advanced safety training*. Workshop at the 18th Bombardier-Learjet Safety Standdown, Wichita, KS.

Cortés, A. (2014, April). Where’s the Edge? Safety Ownership in Business Aviation. In A. Robbins (Chair), *Our Safety Day*. Moderation of panel at the 8th Chicago Area Business Aviation Association Safety Day, Glenview, IL.

Cortés, A. (2014, March). Eddie Rickenbacker and legacy hazards. MFOQA and ASAP update. In J. Rubeor (Chair), *Virtual Senior Safety Advisory Council*. Presentation at the Headquarters U.S. Air Force Safety Center. Albuquerque, NM.

Cortés, A. (2014, March). Safety without the mishap. Presentation at the Headquarters Air Education and Training Command. Randolph Air Force Base, TX.

Cortés, A. (2013, November). Data rich but information poor. Closing the design-operations gap. In K. Neubauer (Chair), *Senior Safety Advisory Council*. Presentation at the Headquarters U.S. Air Force Safety Center. Albuquerque, NM.

Cortés, A. (2013, October). Flight data monitoring in remotely piloted aircraft. In D. Evanetich (Chair), *MQ-1/9 Aircraft Information Working Group Annual Meeting*. Presentation at the U.S. Air Force System Safety Meeting. Poway, CA.

Cortés, A. (2013, October). Electrons to the rescue. Virtual resources for safety management. In J. Shiebelhut (Chair), *Knowledge ace. Advanced safety training*. Presentation at the 17th Bombardier-Learjet Safety Standdown, Wichita, KS.

Cortés, A. (2013, October). Excellence in the face of adversity. What is the Right Stuff in the 21st Century? In J. Shiebelhut (Chair), *Knowledge ace. Advanced safety training*. Moderation of panel at the 17th Bombardier-Learjet Safety Standdown, Wichita, KS.

Cortés, A. (2013, October). Owing the edge. Aviation hazard detection and mitigation. In J. Shiebelhut (Chair), *Knowledge ace. Advanced safety training*. Workshop taught at the 17th Bombardier-Learjet Safety Standdown, Wichita, KS.

Cortés, A. (2013, August). Applied research in aircraft loss-of-control and human factors monitoring through flight data. In A. Stolzer (Chair), *Ph.D. in Aviation Residency*. Presentation at Embry-Riddle Aeronautical University, Daytona Beach, FL.

Cortés, A. (2012, May). Risk reduction strategies: Best practices from the U.S. Air Force. In R. Gaillard (Chair), *Journey to Safety Excellence Virtual Summit: Best Practices in Creating and Sustaining a Proactive Safety Culture*. Presentation at the National Safety Council, Itasca, IL.

Neubauer, T., & Cortés, A. (2012, May). Building a high-performance safety management system: Essentials of success. In R. Gaillard (Chair), *Journey to Safety Excellence Virtual Summit: Best Practices in Creating and Sustaining a Proactive Safety Culture*. Presentation at the National Safety Council, Itasca, IL.

Cortés, A. (2012, March). Evolución cultural: Seguridad operacional proactiva [Cultural evolution: proactive safety]. In J. C. Ramírez (Chair), *XI Seminario de Seguridad Operacional*. Presentation in Spanish at the Colombian Air Force Safety Summit, Villa de Leyva, Colombia.

Cortés, A. (2011, October). Detecting mishap precursors. In R. Rowe (Chair), *Knowledge ace. Advanced safety training*. Workshop taught at the 15th Bombardier-Learjet Safety Standdown, Wichita, KS.

Cortés, A. (2011, September). First of niner. The USAF C-17 MFOQA program. In N. Dann (Chair), *Military Flight Operations Quality Assurance Workshop*. Presentation at the Cranfield Safety & Accident Investigation Centre, Cranfield University, United Kingdom.

Cortés, A. (2011, September). Viper safety...a new dawn. The USAF F-16 MFOQA program. In N. Dann (Chair), *Military Flight Operations Quality Assurance Workshop*. Presentation at the Cranfield Safety & Accident Investigation Centre, Cranfield University, United Kingdom.

Cortés, A. (2011, June). Challenges & successes implementing proactive safety programs. In J. Michaud (Chair), *Allied Air Force Initiatives*. Presentation at the 13th Air to Air Safety Conference, Ottawa, Canada.

Cortés, A. (2011, May). Proactive safety data (MFOQA & ASAP). In D. Slocum (Chair), *Chief of Safety Session*. Presentation at the Air National Guard Executive Safety Summit, Orlando, FL.

Cortés, A. (2010, October). Team human performance workshop. In R. Rowe (Chair), *Knowledge ace. Advanced safety training*. Day-long course at the 14th Bombardier-Learjet Safety Standdown, Wichita, KS.

Cortés, A. (2010, October). Individual human performance workshop. In R. Rowe (Chair), *Knowledge ace. Advanced safety training*. Day-long course at the 14th Bombardier-Learjet Safety Standdown, Wichita, KS.

Cortés, A. (2010, October). Military flight operations quality assurance. In G. Ruhdman (Chair), *Operational risk management*. Presentation at the Air Force Central Command Safety Standdown, Cairo, Egypt.

Cortés, A. (2010, October). Safety culture leadership. In R. Rowe (Chair), *Knowledge ace. Advanced safety training*. Presentation at the 14th Bombardier-Learjet Safety Standdown, Wichita, KS.

Cortés, A. (2010, October). What is a professional pilot? In R. Rowe (Chair), *Knowledge ace. Advanced safety training*. Moderation of panel at the 14th Bombardier-Learjet Safety Standdown, Wichita, KS.

Cortés, A. (2010, August). *Flight safety leadership*. In R. Rowe (Chair), *Knowledge ace. Advanced safety training*. Presentation at the 1st Bombardier-Learjet Safety Standdown, Sao Paulo, Brazil.

Cortés, A. (2010, July). Peak performance on the flight deck. In D. Loucks (Chair), *Situational awareness and automation*. Presentation at the 7th M & N Aviation Safety Standdown, Englewood, CO.

Cortés, A. (2009, November). Fiabilidad de actuación humana en la cabina de vuelo [Reliability of human performance in the cockpit]. In O. Bahamondes (Chair), *Factores humanos y uso de nueva tecnología en la navegación aérea [Human factors and new technology for aerial navigation]*. Presentation at the Universidad Técnica Federico Santa María, Santiago, Chile.

Cortés, A. (2009, November). Tecnología de cabina y funciones de piloto para vuelo autónomo [Cockpit technology and pilot roles for autonomous flight operations]. In O. Bahamondes (Chair), *Factores humanos y uso de nueva tecnología en la navegación aérea [Human factors and new technology for aerial navigation]*. Presentation at the Universidad Técnica Federico Santa María, Santiago, Chile.

Cortés, A. (2009, October). Safety leadership for pilots. In R. Rowe (Chair), *Knowledge ace. Advanced safety training*. Presentation at the 13th Bombardier-Learjet Safety Standdown, Wichita, KS.

Cortés, A. (2009, September). Smart pilot. Advanced human performance skills for the cockpit. In R. Rowe (Chair), *Knowledge ace. Advanced safety training*. Workshop at the 13th Bombardier-Learjet Safety Standdown, Wichita, KS.

Cortés, A. (2009, June). *Conciencia situacional compartida para tripulaciones [Shared situation awareness for aircrew]*. Presented at the Vitacura Campus Student Assembly, Universidad Técnica Federico Santa María, Santiago, Chile.

Cortés, A. (2009, June). *Liderazgo de enseñanza. Profesores como arquitectos de aprendizaje [Leadership in teaching. Professors as architects of learning]*. Presented at the Vitacura Campus Faculty Assembly, Universidad Técnica Federico Santa María, Santiago, Chile.

- Cortés, A. (2009, June). *Vuelo libre AFR. ¿El futuro? [AFR free flight. The future?]*. Presented at the Vitacura Campus Faculty Meeting, Universidad Técnica Federico Santa María, Santiago, Chile.
- Cortés, A. (2008, October). Cognitive error. My brain made me do what? In R. Rowe (Chair), *Global war on error*. Presentation at the 12th Bombardier-Learjet Safety Standdown, Kansas City, MO.
- Cortés, A. (2009). *Service-learning for millennial students*. Poster presented at the annual ERAU Faculty Assembly, Daytona Beach, FL.
- Cortés, A. (2008, August). *NASA Cockpit Situation Display*. Presentation at the Aeronautical Science Fall Faculty Retreat, Daytona Beach, FL.
- Cortés, A. (2008, March). Newhire pilot yield. The pilot production pipeline & industry cyclicity. Presentation at the *National Training Aircraft Symposium*, Daytona Beach, FL.
- Cortés, A. (2008, March). *The airline down-cycle is starting. How do we advise our students?* Presented at the Aeronautical Science Faculty Meeting, Embry-Riddle Aeronautical University, Daytona Beach, FL.
- Cortés, A. (2007, October). How expectancy errors degrade pilot situation awareness. In R. Agostino (Chair), *Global war on error*. Presentation at the 11th Bombardier-Learjet Safety Standdown, Wichita, KS.
- Cortés, A. (2007). *Leadership Precepts that Foster Student Engagement*. Poster presented at the annual ERAU Faculty Assembly, Daytona Beach, FL.
- Metscher, D., & Cortés, A. (2007). Faculty mentoring in higher education. Presentation conducted at the 1st ERAU Leadership Institute, Daytona Beach, FL.
- Cortés, A. (2007, February). Detecting crew resource management blindspots. Presentation conducted at the *1st Annual International CRM Vectors Symposium*, Daytona Beach Shores, FL.
- Cortés, A. (2006, October). The ground icing battle. In R. Agostino (Chair), *Global war on error*. Presentation at the 10th Bombardier-Learjet Safety Standdown, Wichita, KS.
- Cortés, A. (2006, August). *Collaborative learning in aeronautical science*. Presentation at the Aeronautical Science Fall Faculty workshop, Embry-Riddle Aeronautical University, Daytona Beach, FL.
- Cortés, A. (2006, March). *Service learning initiatives in flight safety*. Presentation at the Aeronautical Science Faculty Meeting, Embry-Riddle Aeronautical University, Daytona Beach, FL.
- Cortés, A. (2005, August). *Creative learning through situational exercises*. Presentation at the Center for Teaching and Learning Faculty Workshop, Embry-Riddle Aeronautical University, Daytona Beach, FL.

ACADEMIC TEACHING

ERAU 2014 -2017:

- Doctoral Residency Seminar I, Summer 2017.
- Doctoral Residency Seminar II, Summer 2017.
- Doctoral Residency Seminar III, Summer 2017.
- Dissertation Research course (voluntary reporting of threats and errors), Spring 2017-
- Accident Phenomenology, Unmanned Aerial Systems professional seminar, May 2017.
- Engineering & Human Factors Investigations, Accident Investigation professional seminar, May 2017.
- Airport SMS (Miami-Dade Aviation Department professional program workshop), January 2017.
- Dissertation Research course, pilot responses to aircraft icing dissertation, Fall 2015-Spring 2017.
- Future of Safety Management, Aviation SMS Workshop, November 2016.
- SMS Workshop, Air National Guard Mishap Prevention Seminar, November 2016.
- Aviation/Aerospace Accident Investigation, graduate course, Spring 2015.

Fostering Learning in Unmanned Aerial Systems Courses, ERAU-GAI workshop, Summer 2014.
Introduction to Health, Occupational, & Transportation Safety, undergraduate course, Fall 2014.

USAF 2010-2014:

Engineering Technical Analysis Module of Safety Board President Course: 11 courses, 348 students.
Accident Prevention Management Module of Chief of Safety Course: 13 courses, 313 students.
FOQA in Aviation Safety Program Management Course: 14 courses, 405 students.

ERAU 2003-2010:

Leadership & Human Performance in High Reliability Organizations (graduate course overseas 2009).
Mishap/Accident Investigation Management (professional seminar, 2007-2008).
Flight Safety (undergraduate course 2005-2010).
Crew Resource Management (undergraduate course 2005-2010).
Flight Technique Analysis (undergraduate course 2004-2010).
Airline Operations (undergraduate course 2004-2006).
Aerodynamics (undergraduate online course 2005-2006).
Industrial Safety Management (graduate course 2003-2004).
Airport Operations Safety (graduate course, 2003-2004).
Aviation/Aerospace Accident Investigation & Safety Systems (graduate course 2003-2005).