



HFES FELLOWS PROFILE



Name: Sheryl L. Chappell

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Short biography:

Sheryl L. Chappell is an independent consultant. She advises human factors scientists and practitioners on research and product development, and she serves on the committees of several Human Factors professional organizations. She retired from the Federal Aviation Administration after serving as a Scientific and Technical Advisor for Human Factors where she managed research programs that provided guidance for FAA standards and procedures. This research addressed flight deck automation; air traffic procedures; pilot and maintainer skills, training, fatigue, and decision making; and the safe introduction of unmanned aircraft systems into the national airspace.

She previously served as the Deputy Chief of the Safety Recommendations and Quality Assurance Division at the National Transportation Safety Board. Her work involved developing and advocating safety recommendations resulting from investigations of transportation accidents and safety research. She served as a liaison with government, industry, and labor organizations to implement changes to improve safety in all modes of transportation.

Before joining the NTSB, Sherry was the Chief Engineer for Unmanned Systems on the Army's Warfighter Machine Interface Design Team. She was responsible for designing and testing the user interface of command and control systems for mounted and dismounted operation of unmanned aerial and ground vehicles. Dr. Chappell analyzed the operational environments, Army doctrine, soldier experience and training, and system functionality to produce user requirements.

Prior to joining SA Technologies, Dr. Chappell held several human factors and project management positions at Delta Air Lines. She was responsible for identifying accident/incident precursors and incorporating solutions into Delta's pilot training programs, flight operations procedures, and publications, to ensure a safe operation. While at Delta, she led the Human Factors work in information technology for Delta's Flight Operations, In-Flight Services, Technical Maintenance Operations, and Dispatch/Flight Control. Projects included user task analyses, user requirements specification, training program design and development, procedure design, user interface design, prototype development, and usability testing.

Sherry spent 17 years at the National Aeronautics and Space Administration's Ames Research Center, at Moffett Field, California. She was the Chief Scientist of the Aviation Safety Reporting System. She



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directed NASA's research program that utilized incident reports voluntarily submitted by pilots, mechanics, and air traffic controllers. Areas of investigation included: the proper allocation of automation on the flight deck, the management of information in flight deck and air traffic control tasks, and the development of error-tolerant systems and procedures. Sherry worked with organizations world wide to solve aviation safety problems and to develop reporting systems and flight data analysis methods. Dr. Chappell was also a principal investigator for NASA's human factors design and evaluation of flight deck systems. She was responsible for ensuring that pilots can correctly interpret the information and respond accurately and quickly.

Sherry received her Ph.D. from the Ohio State University, in Cognitive/Experimental Psychology. She has published over 40 scientific articles and chapters and been on the faculty of George Washington and Embry-Riddle Aeronautical Universities. She served three terms as the president of the Association for Aviation Psychology. She is a Fellow of the Human Factors and Ergonomics Society. Sherry is a Certified Human Factors Professional and an instrument-rated commercial pilot and flight and ground instructor.

Career philosophy/mission statement: My professional goal is to utilize my extensive experience in safety and human factors to reduce the number of deaths and injuries to operators and the public.

Advice for students: Seek a professional direction that gives you the most satisfaction.

Specialty Area(s): Research & Development; Applications & Practice

Field of Interest(s): Aerospace; Applied Research; Automation; Aviation; Cognitive Psychology; Decision Making; Expertise; Human Error; Human Performance; Practitioner; Researcher; Safety; Task Analysis; Transportation; User Experience/UX

Geographic Location: Washington, D.C.

Willingness to communicate with students/availability for face-to-face or virtual meetings: Yes, I am available

If you are willing to communicate with students, how can students contact you? Email

Fellow status: Active

HFES Technical Group Affiliation(s): Aerospace Systems Technical Group; Cognitive Engineering and Decision Making Technical Group

Year inducted as a fellow: 2008

Awards/Honors: Certificate of Appreciation, Secretary of the US Department of Transportation; Sustained Superior Performance Award, NASA, TCAS Human Factors Project; Superior Accomplishment Award, NASA, Aviation Performance Measuring System; Certificate of Recognition, NASA, TCAS Human



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Factors Project; Special Achievement Award, NASA, Aviation Safety Reporting System; Group Achievement Award, NASA, Datalink/Information Transfer Human Factors; Group Achievement Award, Crew-Vehicle Systems Research Facility, NASA; Partners in Safety Award, Alaska Air Carriers Association; Exceptional Performance Award, Boeing

Links to publications /Lab website/Research Gate or similar profile:

https://www.researchgate.net/profile/Sheryl_Chappell

[CV/Resume](#)