ANTHONY P. CIAVARELLI, Ed.D
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EDUCATION:

Doctor of Education, University of Southern California, 1988
Master of Arts, Experimental Psychology, Cal State University, 1976
Bachelor of Arts, Psychology, Cal State University 1968

AFFILIATIONS:

Human Factors and Ergonomics Society
Association for Psychological Science

Dr. Anthony Ciavarelli is the founder of Human Factors Associates, Inc. and serves as the company's president and Principal Scientist. He held the position of Professor of Applied Psychology at the Naval Postgraduate School (1988 - 2010), where he was responsible for teaching and research in Human Factors, Aviation Safety, and Training Technology. He has a broad technical expertise that includes training requirements analysis, system engineering development, and human-machine interface design gained from over 20 years of experience in the Aerospace and Defense Industries, including Boeing Aerospace and Cubic Defense Systems (1967 - 1988). Dr. Ciavarelli is an accomplished Human Factors Engineer and Research Psychologist and is nationally recognized for his research in military aircrew training, human performance assessment, training system development, test and evaluation. For past several years, he has focused on studying safety culture and organizational reliability. He developed and applied various methods to assess the operational safety effectiveness of high-reliability organizations, including military and civilian aviation. He has served as an expert in Human Factors and Organizational Behavior on national and international study committees, including National Academy of Sciences, Organization for Economic Cooperation and Development (OECD), and Asia Pacific Economic Cooperation (APEC). He worked with the NASA Flight Research Centers in a multi-year contract effort (2009 -2018). The NASA effort focused on assessing safety culture and safety management system (SMS) effectiveness. His area of expertise is occasionally sought by attorneys seeking help to better understand underlying human performance factors in accident causation. Dr. Ciavarelli has served as an expert human factors witness in litigation involving serious automobile accidents and human falls.

EXPERIENCE:

Human Factors Associates, Inc. (8/2002 - 9/2020)

Founder - Principal Scientist Dr. Ciavarelli founded Human Factors Associates, Inc., and serves as the chief operating officer and principal scientist. The company was founded in order to serve the aerospace and aviation community with the means to assess organizational climate, culture, and safety management effectiveness.

He developed and applied various methods to assess the operational safety effectiveness of high-reliability civilian organizations based upon the success of his work in assessing safety culture and organizational reliability for Naval Aviation.

He has applied his own survey safety climate – culture and risk assessment instrument across Commercial Aviation and Aerospace, Energy and Healthcare industries. See www.hfa-oses.com for more detailed background.

Naval Postgraduate School (06/1989 - 12/2010)

Professor Applied Psychology Dr. Ciavarelli retired from the Naval Postgraduate School (NPS), Modeling, Virtual Environments and Simulation (MOVES) Institute in December 2010 where he served as a Professor of Applied Psychology. While at MOVES (2003-2010), Dr. Ciavarelli taught and conducted research in the areas of human performance factors in complex systems, training system development, educational effectiveness evaluation and the application of virtual reality training simulation. Prior to his appointment at MOVES, he was associated with the School of Aviation Safety, Naval Post Graduate School where he developed a special Human Factors curriculum for aviators in order to teach them how to identify human performance factors in aviation mishaps, and how to formulate proactive accident preventive measures. He served as the principal investigator of a multi-year R&D program that used advanced multimedia and simulation methods to develop a prototype Night Vision Goggle (NVG) computer-based training system. Dr. Ciavarelli received a Chief of Naval Operations (CNO) commendation letter for his work in NVG training and resulting prototype part task NVG simulator system development. Dr. Ciavarelli served a two - year appointment as Associate Provost, Dean of Instruction at NPS where he was responsible for review of academic standards, curriculum development and the university's initial adoption of web-based education.

University of San Francisco (1986 - 1996)

Adjunct Professor Dr. Ciavarelli taught part time at the University of San Francisco. Courses taught included, Research Methods, Statistics for the Behavioral Sciences, Organizational Psychology, and Human Factors of Information Technology and Organizational Change. He served as the advisor on numerous Master's Theses. Dr. Ciavarelli was placed in the top 95th percentile in graduate student evaluations.

Cubic Corporation (1981 - 1989)

Staff Scientist Dr. Ciavarelli was responsible for design and development of new military aircrew training systems. He provided human engineering design analysis, training system design, and managed a research group in the development of R&D prototypes for instrumented flight training ranges and advanced flight simulation training devices. He worked under US Navy contracts to develop aircrew performance assessment for TOP GUN pilots undergoing training on the Navy's Tactical Air Combat Training Range. He led R&D efforts aimed at assessing air combat training effectiveness and for defining requirements for flight simulation and instructional support systems.

Dunlap and Associates, Inc. M **(1974 - 1981)**

Managing Scientist Dr. Ciavarelli was responsible for directing research in US Navy aircrew performance measurement. He completed tactical training ground school at Miramar Naval Air Station, Naval Weapons School (TOPGUN), and worked closely with operational Navy squadrons to develop and validate air combat pilot performance and training effectiveness measures. The air combat effectiveness model that Dr. Ciavarelli developed was used, in part, to validate the success of the Navy's air combat maneuvering tactical doctrine.

Boeing Aerospace Company **(1971 - 1974)**

Senior Human Factors Engineer Dr. Ciavarelli supported pilot performance simulation studies for the Boeing Crew Systems Department. He conducted pilot visual target acquisition experiments designed to measure and determine a pilot's ability to detect and identify military vehicles in complex terrain environments. The study included psychometric scaling and photometric light diffraction classification of varied ground conditions and terrain types in order to determine the probability successful target acquisition in simulated and real-world environments.

Integrated Sciences

(1968 - 1971)

Senior Scientist Dr. Ciavarelli supported ongoing US Navy systems development, by performing mission and task analysis of forward air controller operations, under contract to the Naval Weapons Center, China Lake. He developed a training program for marine mammal trainers working under contract to the Navy Biosciences Department, and designed experimental studies of Dolphin behavioral training methods and echo location performance testing.

Dunlap and Associates, Inc. **(1966 - 1968)**

Associate Scientist Dr. Ciavarelli participated in onboard data collection of US Navy pilot aircraft carrier landing performance. He was responsible for data collection and subsequent descriptive statistical analysis of performance data. Study data where used by the Office of Naval Research (ONR) to examine the effectiveness of various carrier landing performance aids.

KEY SKILLS

Leadership/Administration - Engineering Management, Associate Provost - Dean of Instruction
Instructional Systems Development - Instrumented training ranges and aviation simulators
Human Factors Engineering - Pilot and aircrew task analysis and operator interface design
Experimental Design & Statistical Analysis - online survey design and statistical analysis
Organizational Climate and Effectiveness Assessment - measurement design and validation
Expert Witness - automobile accidents and injurious falls

HONORS AND AWARDS:

2000 US Navy Meritorious Service Award

1996 US Navy Superior Civil Service Award
1991 US Navy Meritorious Service Award

SELECTED PUBLICATIONS AND TECHNICAL REPORTS:

Ciavarelli, A.P. (2016). Integration of Human Factors into Safety and Environmental Management Systems (OTC-27015) *Offshore Technology Conference*, Houston. http://onlinepubs.trb.org/onlinepubs/PBRLit/Ciavarelli.pdf

Ciavarelli, A.P. (2012, September). *Survey Improvement Study for the NASA Flight Centers Organizational Safety Effectiveness Survey (OSES).* Lake Oswego, Oregon: Human Factors Associates.

Ciavarelli, A.P., Platte W.L, and Powers, J.J. (2009). Teaching and assessing complex skills in simulation. In, the *Proceedings of the Interservice/Industry Training, Simulation and Education Conference (ITSEC),* Orlando.

Ciavarelli, A.P. (2008, February). Culture Counts: How does your organization measure up? *Aerospace Safety Magazine.* Washington DC: Flight Safety Foundation. https://flightsafety.org/wp-content/uploads/2016/12/asw_feb08.pdf

Ciavarelli, A.P (2007, October). Assessing safety climate and organizational risk. Baltimore, MD, *HFES 51st Annual Meeting.*

Ciavarelli, A.P. (2007). Development of a safety climate-culture survey for Air Traffic Control (ATC) Organizations. Prepared for FAA ATO Safety Service Office (IOT&E (ATQ).

Ciavarelli, A.P., and Crowson, J. (2004, March). Organizational factors in accident risk assessment. *Safety Across High - Consequence Industries Conference*, St. Louis Missouri.

Ciavarelli, A.P. (2003). Assessing the quality of online instruction: Integrating instructional quality and web usability evaluations. In, J.E. Wall, G.R. Walz (Eds.). *Measuring up: Assessment issues for teachers, counselors, and administrators***.** Greensboro, NC: ERIC.

Ciavarelli, A.P., (2001, February). Human Factors Checklist: A tool for Aircraft Accident and Incident Investigation. *Flight Safety Digest.* Washington DC: Fight Safety Foundation.

Ciavarelli, A.P., Sengupta, K., and Baer, W. (1994, December). *Night vision goggle training technology Report: Part – Task Simulation Requirements.* Monterey, CA: Naval Postgraduate School. Prepared for NAVAIR (PMA-205).

Ciavarelli, A.P., Orlady, H., and Hennessey, R. (1993, October). *Researchers guide for the 747-400 Flight simulator for NASA-Ames.* Carmel, CA: Monterey Technologies, Inc.

Ciavarelli, A.P. (1988*). Development and Validation of Operational Performance Measures: Air Combat Maneuvering.* Prepared for NAVAIR (PMA-205) Department of the Navy, Washington D.C. Cubic Corporation, San Diego, CA:

Ciavarelli, A.P. (1988). *Methodology for Teaching and Assessing Complex Perceptual - Motor Skills: With application to simulation training (Doctoral Dissertation)*. University of Southern California.

Ciavarelli, A.P., (1986). Instructional strategies for improving training system effectiveness. *In, Proceedings of the Human Factors Society.* Columbus, OH.

Ciavarelli, A.P., (1982). Methodology to assess in-flight performance of air-to-air combat. *In, The 4th Inter-service/Industry Training Equipment Conference.* Washington, DC.

Ciavarelli, A.P., (1980*). Applications of performance feedback for air combat training (SAE Paper 801182)*. Society of Automotive Engineers.