

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  
Rotary Lake Oswego, Oregon (3 years community service)

**SECURITY CLEARANCE:**                      (TOP SECRET)

**TOTAL YEARS EXPERIENCE:**              50 +

**PROFESSIONAL BRIEF:**

Dr. Ciavarelli is internationally recognized as a leader in the field of human performance measurement and organizational climate and safety culture assessment.

He is the founder, CEO and Principal Scientist for Human Factors Associates, Inc. (HFA). Dr. Ciavarelli's company was founded in 2003 and was one of the first companies to offer online survey administration and automated statistical analysis. He applied his own Organizational Safety Effectiveness Survey (OSES) across aviation, aerospace, and healthcare domains to assess organizational climate and safety culture using the online survey platform that he helped design and implement. Key clients included NASA, Bristow Group, REACH air medical services, Alaska Airlines, and Qantas Airlines. Other administrative positions held included Managing Scientist, Dunlap and Associates, Staff Scientist and Advanced Systems Product Manager, Cubic Corporation, and Academic Dean (Associate Provost) Naval Postgraduate School. He has served on national and international study committees, for the Department of the Navy, Department of Energy, Federal Aviation Agency, Asia Pacific Economic Cooperation (APEC), Organization for Economic Co-Operation and Development (OECD) and the National Academy of Sciences, as a subject matter expert in human performance and organizational assessment for high-risk industries, including commercial aviation, aerospace, oil and gas industry, and healthcare.

In addition to his senior administration positions in industry, he served as an appointed Academic Dean of university education, responsible for ensuring high academic accreditation standards and new curriculum development. As Dean of Instruction, at the Naval Postgraduate School, he led the initial program for the early implementation of online eLearning.

He earned an Ed. D in Educational Psychology and Instructional Technology and holds a master's degree in Experimental Psychology. Dr. Ciavarelli's experience in human factors engineering and training system development was acquired in over twenty years working as a human factors engineer, and behavioral scientist in the Aerospace and National Defense industries. He has over fifty years' experience across a broad range of technical disciplines, including human factors engineering, military aircrew training development, human - computer interactive system design, simulation training, and human performance evaluation. As a professor Applied Psychology, Dr. Ciavarelli taught university classes in Research Methods, Statistics, Human Factors Engineering, Aviation Safety, and Training Simulation.

#### **DETAILED PROFESSIONAL EXPERIENCE:**

**Monterey Technologies, Inc.**

**(10/2021– Present- Part time)**

Principal Human Factors Engineer Dr. Ciavarelli has been actively involved in providing technical design inputs on several ongoing Department of Defense engineering development programs. He also supports MTI proposal efforts. His participation on engineering development and proposals capitalizes on his extensive background and experience in system engineering design (human factors) and advanced simulation training development. Dr. Ciavarelli's MTI work included technical inputs for development of the US Army's Optionally Maned Fighting Vehicle (OMFV) and the Space Force FORGE missile defense program. Both OMFV and FORGE programs focus on improving defense systems acquisition management by placing greater emphasis on early consideration of the Human System Integration process and by incorporating human factors engineering design methods for optimizing human - machine interfaces. He served as Co- Principal Investigator on a 2024 study directed at improving Risk Informed Decision Making for the Nuclear Regulatory Commission (NRC).

**Human Factors Associates, Inc.**

**(8/2003 - Present)**

Founder - Principal Scientist Dr. Ciavarelli founded Human Factors Associates, Inc., and serves as the chief operating officer and principal scientist. The company was founded to serve the aerospace and aviation community with the means to assess organizational climate, safety culture, and safety management effectiveness. He developed and applied various methods to assess the operational safety management of high-reliability civilian organizations based upon the success of his work in assessing safety culture and organizational reliability for Naval Aviation. He applied his own survey safety climate – risk culture assessment instrument across Commercial Aviation, the Aerospace Industry, FAA and NASA, Offshore Oil and Gas Transport, Air Medical Transport, Nuclear Laboratory, Electric Utility and Healthcare industries.

## **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 systems. 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 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 development of a prototype part task NVG desktop training simulator. Dr. Ciavarelli was appointed Dean of Instruction (Associate Provost) for NPS and served for a period of two years. He was responsible for new curriculum and accreditation reviews. He led the program for development of eLearning courses, including establishment of an eLearning faculty resource center, specification of educational quality standards and evaluation methods.

## **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 95<sup>th</sup> 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 advanced systems development of R&D prototypes for both 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. In addition, 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.**

**(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 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 to determine the probability successful target acquisition in simulated and real-world environments. His study of pilot air to ground visual target acquisition was the basis for his Master of Arts graduate thesis.

**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.

**Dunlap and Associates, Inc.**

**(1966 - 1968)**

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

**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., 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](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 51<sup>st</sup> 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. (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: Flight Safety Foundation

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. (1998). Nuclear Critical Incident Lawrence – Livermore National Laboratory (LLNL): *Operational Nuclear Safety Practices Review: Analysis and Recommendations*. Prepared for Science Applications, Under contract to LLNL.

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., Orady, 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 pilot simulation training*. University of Southern California Doctoral Dissertation. Los Angeles.

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 4<sup>th</sup> Inter-service/Industry Training Equipment Conference*. Washington, DC.

Ciavarelli, A.P., L. Walker, & W. Lee (1975). *Terrain Classification Study: with application to pilot air to ground target acquisition performance*. Boeing Aerospace.

Bricton, C.A., Ciavarelli, A.P., and Wulfeck, J.W. (1969). Operational measures of aircraft carrier landing system performance. *Human Factors*, 11, 281-290.

Desai, V.M., Roberts, K.R., and Ciavarelli, A.P. (2006, winter). Defensive attributions in the formation of perceived safety climate. *Human Factors and Ergonomics*, 48. (4) 639-650.

Gaba, D.M., Singer, S.J., Sinaiko, A.D., Bowen, J.D., & Ciavarelli, A.P. (2003). Differences in safety climate between hospital personnel and Naval Aviators. *Human Factors and Ergonomics*, 45, 173-185.

Singer, J. S., Rosen, A., Zhao, S., Ciavarelli, A.P. (2010). Comparing safety climate in naval aviation and hospitals: Implications for improving patient safety. *Health Care Management Review*, 35, (2), 134-146.

Barhorst – Cates, E.M., Hanna, J.D., Ciavarelli A.P. (8/30/24). An evaluation of variability in two nuclear power regulatory processes. *Journal of Cognitive Engineering and Decision Making*. (submitted, in final review for publication).