



# Verification and Validation Summit

## Forum 2024

May 8, 2024

### Speaker Biographies

**Carl K. Andersen** is the Acting Director of the Federal Highway Administration's Office of Safety and Operations Research and Development. The Office oversees nationally coordinated traffic safety and operations research to reduce highway crashes, fatalities, and injuries and produce next-generation technologies and tools to improve transportation system productivity, efficiency, and performance. Mr. Andersen is responsible for the strategic direction of the Office and for the coordination of the research, development, deployment, and technology transfer of the safety and operations research portfolio, both within and external to the Federal Highway Administration.

**Dr. C. David Brown** is a consulting engineer supporting Department of Defense (DOD) Test and Evaluation (T&E) through the MITRE Corporation and the Institute for Defense Analyses. He also teaches graduate courses in program management and systems engineering for Johns Hopkins University. He is the former Deputy Assistant Secretary of Defense for Developmental T&E and Director of the DOD Test Resource Management Center. He has held a variety of positions throughout his almost 50-year career in T&E, including range instrumentation development, range test director, technology and range director, and test lead for a major Army acquisition program.

Dr. Brown has a PhD in electrical engineering from the University of Delaware and an MS in National Security Policy from the Industrial College of the Armed Forces. He is a registered Professional Engineer, was a member of the Army and Defense Acquisition Corps, and is a retired Army Reserve Colonel. He has three patents, is a Certified Test and Evaluation Professional, and a certified Scaled Agilist. He has been a member of the International Test and Evaluation Association (ITEA) almost since its founding and has served in numerous leadership and support positions. He was the recipient of the prestigious ITEA Matthews Award for lifetime achievement in T&E and the National Defense Industrial Association (NDIA) Hollis Award for lifetime achievement in defense acquisition. He is very involved with STEM programs in his local area, mentors at a local STEM magnet school, is president of the Northern Chesapeake Science, Technology, Engineering, and Mathematics (STEM), Inc., and is the recipient of the Visionary Award for local STEM leadership and contributions.

**John Frederick** is the Manager of the Verification and Validation (V&V) Strategies and Practices Branch at the Federal Aviation Administration's (FAA) William J. Hughes Technical Center (WJHTC), where he is responsible for establishing quality V&V methods and standards in the FAA. He has more than 38 years of T&E experience with FAA systems. Since starting the annual V&V Summit in 2006, Mr. Frederick has gathered speakers and participants from across the FAA, other government organizations, industry, and academia to address innovative methods for complex problems and to promote a quality V&V culture.



# Verification and Validation Summit Forum 2024 May 8, 2024

## Speaker Biographies

In the early part of his career, as both a support contractor and FAA employee, Mr. Frederick worked as a National Airspace System (NAS) programmer, test engineer, simulations developer, and Operational Test and Evaluation (OT&E) lead on Air Traffic Control (ATC) automation systems. He has supported and led T&E efforts on more than 12 major FAA automation programs. A large portion of his career in the FAA was dedicated to working as an FAA Test Director and Test Program Manager on major FAA acquisitions of En Route ATC automation systems. As Chief Test Engineer and Subject Matter Expert (SME), Mr. Frederick has consulted with the DOD and international agencies on T&E and provided guidance on FAA investment programs. He has served as the Test Standards Board Chairman to establish test standards in the FAA and provide quality T&E oversight for the agency. He is also the ITEA South Jersey Chapter President and serves as the T&E representative for the FAA on the Acquisition System Advisory Group (ASAG) and Joint Resources Council (JRC).

Mr. Frederick is a graduate of Drexel University (Philadelphia) with a Bachelor of Science in Computer Systems Management. He is also a graduate of the Federal Executives Institute with a Certificate of Mastery in Leadership for a Democratic Society.

**Dr. Ian Levitt** manages the Operational Concepts, Architecture, and Requirements Integration (OCARI) Team for the National Aeronautics and Space Administration's (NASA) Air Mobility Pathfinders (AMP) project, where his research focus is on the complex enterprise evolution of the NAS. Prior to joining NASA in 2020, he was with the FAA Office of NextGen's Portfolio Management & Technology Development Office (ANG-C) working out of the FAA's WJHTC. Dr. Levitt has led international standards for Automatic Dependent Surveillance-Broadcast (ADS-B) technologies and applications and has provided leadership for FAA's and NASA's capabilities for conducting Research, Development, Test, and Evaluation (RDT&E). Dr. Levitt's mission is to promote a healthy and continuous transformation of society's enterprise systems, and to help people integrate through communication, open collaboration, and facilitating environments where learning, ideas, and insights come together.

**Dr. Taylor Lochrane** is an esteemed leader with two decades of experience in both the federal and private sectors. He is recognized nationally as an innovative entrepreneur in the fields of transportation safety, automation, and research. Dr. Lochrane currently serves as Deputy Director and Chief Scientist for the Highly Automated Systems Safety Center of Excellence (HASS COE), Office of the Assistant Secretary for Research and Technology (OST-R) in the U.S. Department of Transportation (DOT). In this role, Dr. Lochrane is responsible for leading a team of national experts with the vision to be a national resource for expertise, research, and global leadership in



# Verification and Validation Summit Forum 2024 May 8, 2024

## Speaker Biographies

advancing the safe deployment of automation in transportation. Dr. Lochrane's leadership skills have allowed him to successfully review, assess, and validate highly automated systems for safety on behalf of the DOT. Dr. Lochrane holds a BS, MS, and PhD in Civil Engineering from the University of Central Florida.

**Sherri Magyarits** is a Project Manager and concept developer for New Entrant Concepts in the FAA's NextGen organization. In 2012, Sherri architected the FAA's Concept of Operations for integrating Unmanned Aircraft Systems (UAS) into the NAS. Since that time, she has continued to develop and mature UAS concepts in collaboration with the FAA, NASA, and industry, including development of the FAA's UAS Traffic Management Concepts of Operation (v1.0 in 2018, v2.0 in 2020) and the Upper-Class E Airspace Traffic Management (ETM) Concept of Operations (v1.0 in 2020). Ms. Magyarits also architected the FAA's Advanced Air Mobility (AAM) Implementation Plan for near-term integration of AAM operations at key sites in the U.S. (Innovate28 Project). She has more than 30 years of experience working in the aviation field, including 25 years with the FAA.

**Angela Moore** is an internationally certified Lean/Six Sigma Master Black Belt (LSSMBB), a United States Government Auditor (CGAP), and a Configuration Management Professional (CCMP) with more than 30 years of auditing, quality, and engineering experience supporting the FAA. Ms. Moore currently supports the V&V Summit's host organization in its mission to strategically promote and implement robust V&V as well as T&E practices. Her leadership was recognized in December 2022 by Southern New Jersey Professional Societies: Engineer of the Year Award in the Outstanding Technical Leadership category. Her work supports the sustainment of International Organization for Standardization (ISO) certificates at the WJHTC and includes cradle-to-grave analysis and reengineering of the processes and policies affecting the NAS.

Beginning her career supporting the FAA as a software-development contractor (En Route, Terminal, and Host), Ms. Moore has experience in acquisition systems development, supporting disciplines such as Systems Engineering, Metrics, Security, Data/Information Management, Supply Chain, and Knowledge Management. Ms. Moore collaborated on the feature article *Dynamic Innovation with Rigor*, INCOSE *INSIGHT*, <https://doi.org/10.1002/inst.12423>.

**Crisanne Nolan** is an Agile Transformation Engineer in the Continuous Delivery of Capability Directorate at the Carnegie Mellon University Software Engineering Institute (SEI). She contributes to SEI's transition of Agile research and practices into complex government programs fielding cyber-physical systems through strategic planning, process definition, facilitation, and



# Verification and Validation Summit Forum 2024 May 8, 2024

## Speaker Biographies

Agile operations. Her research interests include adoption support for rapid capability delivery and human-centered design approaches for business agility. Ms. Nolan has a Master of Public Management degree from Carnegie Mellon University and co-chairs the Software Engineering Institute Agile Collaboration Group.

**Tom Rubino** serves as a systems engineer at the FAA WJHTC in Atlantic City, NJ. He has 35 years of experience in researching and testing new technologies and future concepts for inclusion in the NAS. Currently, he serves as the test director for the Innovate 2028 AAM portfolio and leads the Innovate 2028 AAM modeling and simulation effort. He also supported other enterprise-level initiatives leveraging his knowledge of NAS systems and operations. Mr. Rubino was the NextGen Trajectory Based Operations (TBO) Integrated Test Environment lead that established an end-to-end lab environment for research and operational integration testing of TBO capabilities. Under his leadership, this robust environment is being enhanced to support research and testing for diverse operations such as AAM. He has a Bachelor of Science Degree from Drexel University.