



Ground System Architectures Workshop

Rob Stevens

Rob Stevens is the Director of the Model Based Systems Engineering Office at The Aerospace Corporation in El Segundo, California where he has provided systems engineering analysis support for numerous satellite programs, managed the corporation's Concept Design Center, and served as project systems engineer for several CubeSats in the AeroCube program. He currently manages teams that specialize in SysML modeling, space system concept design, concurrent engineering, space warfighting, and spacecraft digital twins.

Prior to joining The Aerospace Corporation, he served in the U.S. Navy for over 20 years operating, developing, and testing aerospace systems. During his military career, he flew as a Naval Flight Officer in E-2C Hawkeyes during Operation Southern Watch from the USS Constellation, managed satellite payload test programs, and served as an Assistant Professor and Director of the Small Satellite Program at U.S. Naval Academy. He earned his B.S. in Aerospace Engineering from the U.S. Naval Academy, M.S. in Aeronautical and Astronautical Engineering from the Naval Postgraduate School, and his Ph.D. in Astronautical Engineering from the Air Force Institute of Technology.

Robert Kellogg

Robert Kellogg is a Model-Based Systems Engineer (MBSE) at the Aerospace Corporation who specializes in SysML satellite modeling. He has worked in the MBSE office, supporting MBSE and digital engineering (DE) activities from CubeSats to the enterprise level. His modeling work with the AeroCube program has been used within several of their design reviews. This type of work has led to him developing models to be used for two Aerospace University trainings: Applied MBSE for Spacecraft and Model Based Reviews. He also works on digital engineering ecosystems building interfaces between descriptive, analytical, and simulation tools.

Fredda Lerner

As a systems of systems (SoS) engineer, Ms. Lerner is focused on systems development, engineering, integration, and lifecycle management in the context of and used for digital engineering (DE). Ms. Lerner has long been a DE practitioner and evangelist: 7 years ago, she was an integral part of the team that simulated one of the first successful DE ecosystems that interconnected disparate authoritative source of truth (ASOT) data sources through models at a US government agency. Ms. Lerner supports, develops, leads, and enables US Department of Defense, Intelligence Agencies, and other federal agencies to include NASA and NOAA, to cost effectively and efficiently develop, plan, implement, and transition their systems into the DE paradigm. Ms. Lerner received a Bachelor of Mechanical Engineering from Georgia Tech. In the 40+ years since then, Ms. Lerner has held mechanical, manufacturing, systems engineering, and program management positions of increasing authority and scope for leading private sector corporations, most of which were in support of US government programs. Recently, Ms. Lerner was a chapter co-author of Emerging Trends in Systems Engineering Leadership, published in 2022.