NASA Langley Alumni Association
Membership Meeting Speakers - May 14, 2024

~ Enabling Safe Landings on the Moon and Mars ~
~ Langley Technology Paves the Way ~

Daniel Litton
Navigation Doppler Lidar (NDL) Project Manager

Mr. Daniel Litton is the Project Manager for Navigation Doppler Lidar and Flash Lidar at NASA's Langley Research Center with 18 years of experience in flight mechanics, assistant branch management, and project management. He has served as the project manager on multiple multi-organizational, multi-disciplinary teams across numerous centers and organizations for projects such as Launch Abort System (LAS) Hatch Acoustic Test, LAS QM-1 Acoustic Measurement Test, IRVE-4, and Mass Simulator for Orion. Additionally, Daniel has served in various engineering and technical leadership roles for multiple flight dynamic projects ranging from Exploration Systems Architecture Study (ESAS), Lunar Surface Access Module (LSAM), Mars Science Laboratory, Launch Abort System, InSight, ADEPT (Adaptable, Deployable, Entry, and Placement Technology), Orion, and Space Launch System (SLS). Daniel also previously helped oversee all on-center Orion and SLS work and served as Deputy Project Manager for Navigation Doppler Lidar.

Daniel began his career at Patuxent River Naval Air Station (NAVAIR) working with store separation from the F-18. After NAVAIR, Daniel then began his career at NASA Langley working in the Atmospheric Flight and Entry Systems Branch with National Institutes of Aerospace beginning in 2004 before becoming a civil servant at NASA Langley in 2006. He earned his Bachelor's and Master's degrees in Aerospace Engineering from North Carolina State University. Daniel is the recipient of the NASA Exceptional Achievement Medal and the Silver Achievement Medal.

When not at work, Daniel enjoys playing recreational league tennis and playing volleyball, tennis, and golf with his kids and boating with his family. He is also the head coach for the Poquoson High School ladies tennis team.

Dr. Glenn Hines
Navigation Doppler Lidar (NDL) Chief Engineer

Dr. Glenn Hines is the Chief Engineer for the Navigation Doppler Lidar instrument at NASA Langley Research Center. He holds B.S and M.S. degrees in Electrical Engineering, and M.S. and Ph.D. degrees in Computer Science. He has held multiple positions at Langley including Branch Head of the Remote Sensing Branch. He is a recognized expert engineering authority on the development and application of application specific integrated circuits (ASICs), multi-chip modules (MCMs), digital signal processors (DSPs) and field programmable gate arrays (FPGAs); and he is a leading expert in the areas of image and signal processing. He has authored numerous technical research papers.

Robert Maddock
Navigation Doppler Lidar Project Manager

Mr. Rob Maddock received his Bachelor's degree in Aerospace Engineering from St. Louis University in 1992, and his Master's degree in Aerospace Engineering from The University of Tennessee 1995. In 1996 he joined the Jet Propulsion Laboratory where he worked in mission and trajectory design and systems engineering on several mission studies and flight projects, including Cassini, the Shuttle Radar Topography Mission, and the Mars Science Laboratory (MSL). He also spent over 5 years in the Mars Advanced Studies Office supporting Mars Sample Return (MSR) mission studies and technology development. In 2005, he joined the NASA Langley Research Center Engineering Directorate to support Entry, Descent and Landing (EDL) systems engineering and design for MSL as well as lead technology and systems development and testing for a multi-mission Earth Entry Vehicle (EEV) for sample return missions. He was also the NASA EDL lead for the Mars InSight Lander mission. Since 2018, Rob has been a part of the Space Technology and Engineering Directorate at NASA Langley as a Project Manager for the Stereo Camera for Lunar Plume-Surface Studies (SCALPSS) payload development in support of NASA's Commercial Lunar Payload Services Program and other lunar and Mars flight opportunities. He is also Project Manager for the PSI (Plume-Surface Interactions) Instrumentation Project (formerly the CLPS PSI Mini-Suite Project) which looks to develop a payload that expands beyond the SCALPSS measurement capability by integrating additional critical PSI sensors.