

### ABSTRACT AND BIOGRAPHY

#### **Healthy Tension: the Mission and Technical Authorities**

The Technical Authorities played a key role in the success of the Ares I-X project. The Chief Engineer and the Chief Safety & Mission Assurance Officer provided the independent review and healthy tension needed to ensure that risks to mission objectives and Ares requirements were properly balanced with schedule and technical concerns. Because Ares I-X was a relatively short project with an aggressive goal, there was a strong push to keep driving forward. The Technical Authorities' role was to provide throttle control and navigation, and an occasional light tap on the brakes, to ensure the project stayed between the lines on the road to success. This presentation will explore the Technical Authorities' decision-making process and logic as it applied at key milestones and decision points in the project, as well as lessons learned, challenges, and interactions with the Mission Management Office.

#### **Daniel Mullane**

*Deputy Chief Safety & Mission Assurance Officer (CSO) for the Constellation Program  
NASA Marshall Space Flight Center*

Mr. Mullane is the Deputy Chief Safety & Mission Assurance Officer (CSO) for the Constellation Program and as part of this duty; he served as the Chief S&MA Officer for the Ares I-X Test Flight. In this latter capacity, Mr. Mullane serves as the S&MA Technical Authority for Ares I-X and integrates a multi-Center S&MA activity for this Constellation Program Test Flight. Prior to serving as the CxP Deputy CSO and Ares I-X CSO, he was MSFC Chief S&MA Engineer for MSFC Space Shuttle Propulsion systems. Before that, Mr. Mullane held increasingly responsible S&MA positions on the MSFC Space Shuttle projects.

#### **Dawn C. Stanley**

*Ares I-X Assistant Chief Engineer  
NASA Marshall Space Flight Center*

Ms. Stanley is the Assistant Chief Engineer for Ares I-X Flight Test Vehicle. In conjunction with the Ares I-X Chief Engineer, Ms. Stanley served as the Engineering Technical Authority for Ares I-X and integrated a multi-Center engineering technical authority team. Prior to serving as the Ares I-X Assistant Chief Engineer, she held various positions of increasing responsibility including subsystems lead engineer, Logistics Deputy Department Manager and Strategic Performance Management and Incentives Manager.

#### **Jeffrey T. Hamilton**

*Deputy to the Deputy Chief S&MA Officer for the Constellation Program  
NASA Marshall Space Flight Center*

Mr. Hamilton is the Deputy to the Deputy Chief S&MA Officer for the Constellation Program Ares I-X Test Flight at KSC. In this capacity, he was resident at Kennedy Space Center from January 2009 until the flight test. He provided the on-site eyes and ears for the Chief S&MA

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Officer, and represented him in multi-Center S&MA activities for this Constellation Program Test Flight. Prior to his assignment to the Ares I-X project, he held increasingly responsible positions as an instrumentation engineer and manager in the Engineering Directorate at MSFC.