



College of Engineering
Department of
Mechanical & Industrial Engineering

The Robert W. Courter Seminar Series



3:00-4:00pm, Friday, November 1, 2019
1263 Patrick F Taylor Hall

John C. Stennis Space Center Overview

by **Mary Byrd*** and **Jason Richard⁺**

NASA Stennis Space Center

Ms. Byrd will provide a brief overview of Stennis Space Center's history and its contribution to past and future NASA space programs. Mr. Richard will provide an overview of how Stennis supports commercial space propulsion development and a brief overview of the design and analysis challenges associated with supporting that development.

* Mary Byrd serves as the director of the Center Operations Directorate. She provides leadership and strategic planning for a comprehensive and integrated program of institutional services for the Center. As director, she provides key center leadership for operations and maintenance of Stennis' test support facilities and in establishing and managing site Host Tenant and Facility Use Agreements with on-site government, university, and commercial tenants. Mary Byrd was born in Lafayette, Louisiana, raised in Terrytown (Gretna), Louisiana and currently resides in Covington, Louisiana. She graduated from Louisiana State University in 1983 with a Bachelor's of Science degree in Electrical Engineering. Her professional career began in June of 1983 when she took a job with Shell Pipeline in New Orleans, LA. In August of 1999, Ms. Byrd hired on with the National Aeronautics and Space Administration (NASA) in the Operations and Maintenance Division of the Center Operations Directorate. Ms. Byrd's career with NASA has allowed her numerous opportunities both on the institutional side of the house as well as with NASA/SSC's test programs. She supported the Shuttle Service Life Extension Program (SLEP), facilitated the Integrated Space Operations Summit (ISOS), and served as the lead for maintenance and operations of facilities in the test complex where she led the test complex Maintenance and Scheduling Coordination Team in 2003 and participated in the Fluid Component Processing Facility Team in 2004. In 2005, Ms. Byrd was awarded the Space Flight Awareness Leadership Recognition Award and also received the Exceptional Service Medal in 2012.

+ Jason Richard is a project engineer in the Engineering and Test Directorate at John C. Stennis Space Center in Mississippi. In this capacity, he is responsible for all phases of a rocket propulsion test project life cycle, including formulation, design, analysis, fabrication, installation, activation and ultimately testing. Mr. Richard joined NASA in 2014, where he served as a mechanical design engineer at Stennis. Mr. Richard is a recipient of the NASA Honor Award and Group Achievement Award. He was also recognized for his participation on the oxygen pre-burner team for SpaceX's full-scale Raptor engine. He graduated from Louisiana State University with a Bachelor of Science in mechanical engineering in 2012.