Centralized and Efficient Management of Two NASA Facilities

SACOM: A Shared Vision to Support Unique Mission Requirements

February 1, 2016 marked the first day of the NASA Synergy Achieving Consolidated Operations and Maintenance (SACOM) contract, a culmination of several years of effort by the Syncom Space Services (S3) joint venture team comprised of PAE and BWXT. Under SACOM, the S3 team manages the operations and maintenance activities as well as the unique mission requirements of two NASA facilities: the Stennis Space Center in Hancock County, Mississippi and the Michoud Assembly Facility in New Orleans, Louisiana.

“We do everything from cutting the grass to supporting advanced manufacturing and rocket engine testing,” said S3 President and General Manager Mike Matteson. “We work closely with NASA to understand their needs and make recommendations for efficiencies and innovations that will save money over the life of the contract. The ultimate purpose is to support space flight systems that will enable NASA’s next phase of human space exploration.”

Some services are integrated for the joint benefit and efficient management of both centers, while others are uniquely catered to the specific mission of each site, described below.

Stennis Space Center Mission Overview

Stennis Space Center is NASA’s primary rocket propulsion testing facility. With state-of-the-art facilities, a canal waterway system and a 125,000 acre acoustical buffer zone, the center provides propulsion test services for NASA, Department of Defense and the private sector. Through history, Stennis has flight-certified the Saturn V rocket used for the Apollo program, the engines used in all the space shuttle vehicles, and is now testing all of the RS-25 engines that will power NASA’s new Space Launch System (SLS), in addition to performing tests for commercial companies.

“SLS is the next generation heavy-lift rocket for human space exploration,” said Mike. “It will launch the Orion spacecraft, which will allow astronauts to travel into deep space for an extended amount of time. Traveling to Mars is one of the explorations SLS will support.”

Stennis is also host to NASA’s Shared Services Center, which provides NASA with centralized administrative processing services. Federal, state, academic and private organizations also make use of the available resources, off-setting the cost of owning and operating the facility.

Michoud Assembly Facility Mission Overview

The Michoud Assembly Facility supports NASA’s exploration missions by providing expertise in the assembly and manufacture of large space systems and hardware. With 43 acres under one roof, the Michoud campus boasts one of the world’s largest manufacturing plants. Other highlights of the campus include a working port with deep-water access and state-of-the-art manufacturing equipment, including automated machining, automated fiber placement machines and friction stir welding.

Like Stennis, Michoud houses a variety of occupants from commercial and government sectors that take advantage of many support services such as laboratory testing, supply chain management, customized training programs, lean six sigma consultation, and other production support activities. Currently, Michoud manufactures and assembles SLS components, and manufactures large structures for the Orion crew exploration vehicle.

The SACOM contract not only consolidated the management of activities across two separate NASA facilities in two separate states; it also required an administrative consolidation of three previously separate contracts. Before SACOM, the same scope of work had been managed under two operations and maintenance contracts and one contract focused exclusively on the Stennis rocket testing requirements. Ensuring a smooth transition from three contracts to one required extensive collaboration and discussion between the customer and the contractor.

“It is a very exciting time to be part of space exploration history.”
Preparation Smooths Transition

In preparation for go-live, the S3 management team initiated significant transition and consolidation planning activities with the NASA customer and the incumbent contractors who held the three contracts under which the scope of work was previously managed.

“Having open communications was a priority because this consolidation is a major change affecting hundreds of contracted employees who have supported each center for years,” explained Mike. “We held eight town hall meetings, seven of which were targeted towards the existing employee base, prior to contract start date, and made sure information was available through a public website.”

Over the course of a month and a half, S3 hired and onboarded over 900 employees, 97% of which were incumbent employees. All employees completed the orientation, training and certification activities needed to become operational and execute the objectives of the contract successfully prior to the official go-live date.

“We have a highly talented workforce,” said Mike “and on day one, operations at each site continued without any interruption or impact to the customer mission. NASA received the engineering, test and manufacturing services it required to continue its mission at each site, and hundreds of tenants at each site ate at the dining facilities, had their work spaces cleaned, received their mail and were generally supported by the S3 base operations services. The team did an outstanding job.”

Supporting Deep Space Exploration

“It is a very exciting time to be part of space exploration history,” said Mike. “Between both facilities, we will support a major portion of the work needed to prepare the SLS for deep space exploration. We will support the manufacturing of the lower stage of the SLS at Michoud and the testing of the engines at Stennis. The testing of RS-25’s four engines will be the first multi-engine test at Stennis since Apollo. This is a really significant milestone and a very exciting mission to support.”

Striving for Excellent Performance

SACOM stands out as a significant contract within PAE’s portfolio. “NASA and other government agencies are looking to reduce costs,” explained Mike “and we can anticipate more contracts consolidating existing work in order to do so. Achieving excellent performance on SACOM through the S3 joint venture could lead to business on other consolidated contracts as well. Specific to NASA, we look forward to reporting efficiencies that will translate into more available funding for future NASA missions.”

SACOM can also serve as a doorway for new work on other PAE contracts with NASA. PAE’s team at Johnson Space Center in Texas recently submitted a bid to transport a section of the SLS to JSC in Houston for acoustic vibration testing. “We want NASA to know that PAE is ready and able to support many of the critical components of the mission,” said Mike.

Synergies

PAE provides maintenance, operations, engineering and construction services to NASA at the Johnson Space Center. More information in “Rigging Department Brings Innovative Solutions to NASA” in the Q3 2015 edition of Inside PAE.