



OCTOBER 2015

# SPACE LAUNCH SYSTEM HIGHLIGHTS

## NASA Completes Critical Design Review for Space Launch System

For the first time in almost 40 years, a NASA human-rated rocket has completed all steps needed to clear a **critical design review** (CDR). SLS is the first vehicle designed to meet the challenges of the journey to Mars and the first exploration class rocket since the Saturn V. Also as part of **the CDR**, the program concluded that the design is mature enough to update the early renderings of the vehicle to more accurately reflect that the core stage of the rocket and Launch Vehicle Stage Adapter will remain orange, the natural color of the insulation that will cover those elements, instead of being painted white. The addition of color on the solid rocket boosters gives a new look to NASA's first 21<sup>st</sup>-century launch vehicle and indicates the upward momentum of the rocket. (NASA)



# NASA Names John Honeycutt SLS Program Manager

NASA has named John Honeycutt manager for the SLS Program. He succeeds the program's first manager, Todd May, who was recently named deputy director of Marshall Space Flight Center, where SLS is based. (NASA/MSFC)



## More Than 50 Pieces of Hardware Completed for SLS Core Stage Tanks



Technicians at NASA's Michoud Assembly Facility in New Orleans have completed more than 50 pieces of flight and qualification hardware for the liquid oxygen and liquid hydrogen tanks for SLS. The qualification hardware will be used to make test versions of the tanks. When completed, the test version tanks will be shipped aboard [NASA's Pegasus barge](#) to the Marshall Space Flight Center in Huntsville, Alabama, for structural loads testing on [new stands](#) currently being built. The flight hardware will be used on the maiden flight of SLS, called Exploration Mission-1. Watch a [video](#) on the progress at Michoud. (NASA/Michoud)

# Spaceflight Partners: Honeywell

*EDITOR'S NOTE: Every month, Space Launch System Highlights turns the spotlight on one of the many industry partners helping to create the largest rocket ever built for human space exploration. In this issue, we profile Honeywell of Clearwater, Florida.*

Honeywell's RS-25 Engine Controller Development Team in Clearwater, Florida, has been hard at work alongside NASA and Aerojet Rocketdyne on the build and integration of RS-25 engineering model engine controllers.

When the SLS rocket launches off the pad on future missions, each of its four RS-25 booster engines will be equipped with an engine controller — an integrated set of computers that monitors engine performance and controls all engine functions. Each controller will continuously check its main engine system against performance requirements, perform engine health sensor acquisition and transmission, and provide fault detection and response capability.

Utilizing these same RS-25 engines, Honeywell supplied the main engine controllers for all 135 space shuttle launches. Honeywell is now developing a second-generation controller design



The Honeywell team is developing four engineering model engine controllers for RS-25 testing at Stennis. (Honeywell)

for the RS-25 to power the core stage of the SLS to low-Earth orbit and beyond.

Over the past 12 months, Honeywell has already shipped four engineering model engine controllers for testing at NASA's Stennis Space Center in Bay St. Louis, Mississippi, with the fifth and final engineering model scheduled for delivery in December 2015.

## Faces of SLS

Meet **Van Strickland**.  
(NASA/MSFC)

### #JOURNEYTOMARS

**Van Strickland**

"Knowing your small contributions will pave the way for larger breakthroughs that will be here for generations to come leaves me speechless." Meet Van Strickland, strategic planning and development manager for the Space Launch System Program at NASA's Marshall Space Flight Center.

**FACES OF SLS**  **Marshall Space Flight Center**

# On the Road...



SLS visited vendor Moog Inc. where former NASA astronaut Don Thomas, right, and Kent Rominger, who is now vice president of Strategy and Business Development for SLS prime contractor Orbital ATK's Propulsion Systems Division, received a warm welcome from **Moog Inc.** and the city of Aurora, New York. See a "Faces of SLS" [profile](#) on one of Moog's employees. (NASA/MSFC)



On Oct. 20, representatives from NASA, including astronaut Mike Hopkins, and prime contractor Orbital ATK toured and met with employees of Parker Hannifin in Lexington. Parker Hannifin manufactures O-rings for the SLS boosters. (NASA/MSFC)



On Oct. 21, NASA's Chris Bramon talks to 400 Wheelift employees and local students during a visit to the Waterloo, Iowa, manufacturing facility. Wheelift is currently building four transporters to lift and carry the massive SLS core stage. They will be able to transport 75 tons each. (NASA/MSFC)



On Oct. 20, NASA astronaut Mike Hopkins, center, and other NASA and Orbital ATK representatives visited SLS industry partner **American Synthetic Rubber Company** (ASRC) and Farnsley Middle School in Louisville, Kentucky. (NASA/MSFC)



Former NASA astronaut Don Thomas and SLS's Sharon Cobb get ready to talk to some 350 employees of **Cobham** Oct. 14 in Orchard Park, New York. (NASA/MSFC)



SLS's Sharon Cobb talks about NASA's Journey to Mars Oct. 14 with Moog Inc. employees and thanks them for their work on SLS. (NASA/MSFC)

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## SLS on Deck:

- Mobile Business Forum
- Auburn University visit
- NCTM Regional Conference