

ORION



MAY 2019

Getting Flight Ready, Across the Board

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At NASA's Kennedy Space Center in Florida, the AA-2 LAS and test crew module were moved from the Launch Abort

System Facility to Launch Complex 46 at the neighboring Cape Canaveral Air Force Station in preparation for its July 2 launch. The team then began work to stack all of the test elements, including the booster, together on the pad getting it flight ready.



In the Operations and Checkout Building (O&C) at NASA's Kennedy, Orion's Artemis 1 crew module recently underwent Direct Field Acoustics Testing where it was exposed to maximum acoustics levels that the vehicle will experience

in space. Spacecraft response and sound pressure data were collected with microphones, strain gauges and accelerometers. The max decibel level was -12dB.



Also at the O&C, Orion's Artemis 1 service module moved across the air bearing floor to the lift station inside the assembly bay, where it underwent installation and fastening to prepare it for its own acoustics testing. Just as the crew module underwent testing, the service module was surrounded with speakers and exposed to the acoustic levels that it will experience on its journey into deep space.

At Lockheed Martin's Littleton, Colorado facility, the forward bay cover on the Orion's Structural Test Article underwent testing to validate the jettison mechanisms and the structural stress models used in designing the crew module. The tested forward bay cover protects the parachutes during flight and initiates their deployment upon return.

Learn more about the forward bay cover:
<https://lmt.co/2QA4wVT>



INSPIRING YOUTH IN COLUMBUS, OH



Orion, Space Launch System (SLS), Exploration Ground Systems (EGS) and other NASA programs all participated in the first-ever Center of Science and Industry (CoSI) Science Festival in Columbus, Ohio. Only 140 miles away from NASA's Glenn Research Center in Cleveland, the teams were able to reach more than 10,000 students and

families as the festival brought science and education to their city in the four day, free event. The Orion, SLS and EGS teams were able to inform attendees of the progress occurring around the country, and in their own state of Ohio, as well as the exciting missions yet to come.

ORION ANNOUNCES NEW CSM AND VIO MANAGERS

In May, the Orion Program named Debbie Korth as the new Crew and Service Module manager and Jim Geffre as the new Vehicle Integration Office manager. Korth brings her experience in human spaceflight hardware development, including the full breadth of project management phases that involve all aspect of program schedule and budget. Geffre brings his experience with cross-program integration, vehicle systems performance, systems engineering and integrated spacecraft design architecture.



SUPPLIER SPOTLIGHT

GRETNA



Located in Houston, Gretna Machine Shop is a women and minority owned manufacturing company that provides Orion with numerous secondary structure brackets and assembly parts. Created in 1981 by their parents, sisters Nubia and Nancy Pérez now oversee the HUBZone company of 75 employees, 12 of which work directly on pieces manufactured for Orion. Recently, the sisters made the decision to expand their capabilities to not only serve the thriving oil and gas industry

in Houston, but also serve the aerospace industry, which led them on the path to their first space-related contract with Orion. While building their relationship with Lockheed Martin and NASA, and seeing the excitement their employees have shown since starting to work on the spacecraft that will deliver the first woman and next man to the Moon, Gretna is eager to see what future contributions they can make in the aerospace industry.

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NASA'S NEW SPACECRAFT
FOR HUMAN EXPLORATION:

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WHAT IS ARTEMIS?

Learn about Artemis, the namesake for Orion's flights that will push the boundaries of human exploration forward to the Moon.

Read here: <https://go.nasa.gov/2HOMOeG>