Lockheed Martin-Built Orion Spacecraft Is Ready For Its Moon Mission

Team Hands Over Completed Orion to NASA to Prepare for Launch

DENVER, Jan. 14, 2021 /PRNewswire/ -- NASA's Orion spacecraft is ready for its mission to the Moon. Lockheed Martin [NYSE: LMT] has completed assembly and testing of the Orion Artemis I spacecraft and has transferred possession to NASA's Exploration Ground Systems (EGS) team today. Assembled at Kennedy Space Center, the EGS team will then perform final preparations on the spacecraft for its mission to the Moon later this year.

Ready for the Moon
Orion is NASA's new human-rated exploration-class spaceship that will take astronauts into deep space including the Moon and Mars. Lockheed Martin is the prime contractor for NASA and built the crew module, crew module adaptor and launch abort system. The European Space Agency provides the European Service Module for Orion.

The Artemis I mission will be the first launch of the Orion spacecraft aboard NASA's Space Launch System rocket. Over the course of three weeks, the uncrewed Orion capsule will fly out and orbit the Moon and return to Earth. This test mission will validate the spacecraft, rocket and ground systems for future crewed missions.

"Orion is a unique and impressive spacecraft and the team did an outstanding job to get us to this day," said Mike Hawes, Orion vice president and program manager for Lockheed Martin. "The launch and flight of Artemis I will be an impressive sight, but more importantly it will confirm Orion is ready to safely carry humans to the Moon and back home. This tremendous advancement opens the door to a new era of deep space exploration that will ultimately benefit us back here on Earth."

Orion is being transferred from the Neil Armstrong Operations and Checkout Building at Kennedy, where it was assembled, to multiple Kennedy facilities where EGS will load propellants and other consumables such as ammonia, helium and nitrogen, and integrate the launch abort system and protective ogive fairing. After this is completed, it will be taken to the Vertical Assembly Facility to be lifted onto the SLS rocket and prepared for roll to the launch pad.

Crewed Missions Underway
The launch later this year will be the beginning of many Artemis missions to the Moon. The next mission, Artemis II, will be the first with a crew onboard and will go out to orbit the Moon and return. That Orion crew module and service module adapter are well under assembly at Kennedy and will see its first power-on of its integrated computers this summer.

Artemis III will see the first woman and the next man to walk on the Moon. Orion will carry them out to orbit the Moon where they will ultimately land on the surface using a lunar landing system. That spacecraft is already under construction as major structural elements of the crew module pressure vessel are arriving at NASA's Michoud Assembly Facility.

As part of an Orion production and operations contract, NASA ordered three Orion spacecraft from Lockheed Martin for Artemis missions III-V with plans to order three additional Orion spacecraft for Artemis missions VI-VIII and options for up to 12 missions.

More information about Orion:
Lockheed Martin Orion page: https://www.lockheedmartin.com/orion
NASA Orion page: https://www.nasa.gov/orion

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