Amit Kshatriya
Deputy Associate Administrator, Moon to Mars Program
Exploration Systems Development Mission Directorate (ESDMD)
NASA Headquarters
Artemis: A Foundation for Deep Space Exploration

- Space Launch System
- Orion Spacecraft
- Human Landing System
- Surface Operations
- Gateway
- Exploration Ground Systems
- Space Communications and Navigation
- Surface Mobility
- Spacesuits
- Surface Infrastructure
Artemis II Progress

Artemis II Orion Spacecraft is lifted into an altitude chamber at NASA’s Kennedy Space Center for electromagnetic interference/compatibility testing.

Integration of Crew and Service Modules for the Artemis II Orion Spacecraft.

The four Artemis II astronauts practice procedures to exit the Orion spacecraft in an emergency.

Artemis II crew members Reid Wiseman and Jeremy Hansen participate in training in the Orion simulator.

In preparation for the Artemis II crewed mission, EGS teams begin installation of four emergency egress baskets at Launch Complex 39B.

Artemis II Service Module.

The four Artemis II astronauts practice procedures to exit the Orion spacecraft in an emergency.

Artemis II booster motor segments receive "worm" logotype in the Rotation, Processing and Surge Facility at Kennedy Space Center.

Artemis II Orion Spacecraft is lifted into an altitude chamber at NASA’s Kennedy Space Center for electromagnetic interference/compatibility testing.

All four RS-25 engines complete and installed into the Artemis II Space Launch System Rocket Core Stage.

NASA Artemis II crew members are assisted by U.S. Navy personnel as they exit a mockup of the Orion spacecraft in the Pacific Ocean during URT-11.
Artemis III Progress

The Joint Extravehicular Activity and Human Surface Mobility Program Test Team test tools and spacesuits

Artemis III booster segments

Astronauts Victor Glover and Christina Koch practice runs on a Starship elevator mockup in the Neutral Buoyancy Laboratory (NBL)

Spacesuit and hardware tests on the simulated lunar terrain on the NBL pool floor

Astronauts Victor Glover and Christina Koch practice runs on a Starship elevator mockup in the Neutral Buoyancy Laboratory (NBL)

Artemis III crew module integration

European Service Module 3 integration in Bremen cleanroom

Artemis III launch vehicle stage adapter has completed frangible joint assembly

March 14, 2024—Starship third integrated test flight. Credit: SpaceX
ARTEMIS IV
Artemis IV Progress

ML-2 truss work

Artemis IV payload adapter engineering development unit ready for evaluation

Artemis IV Crew Module Pressure Vessel at Kennedy Space Center

Early hardware for Lunar I-Hab that will be delivered to Gateway on Artemis IV

Artemis IV universal stage adapter development test article at Marshall for testing

Artemis IV engine section in progress

Artemis IV European Service Module in Bremen, Germany
Artemis V Progress

- Artemis V Y-ring manufactured at Michoud Assembly Facility
- Orion crew module pressure vessel welding has begun at NASA’s Michoud Assembly Facility
- Certification testing for production of new RS-25 Retrofit 3b engines to power the SLS rocket, beginning with Artemis V, completed early April 2024
- European Service Module-5 at the Airbus Integration Hall in Bremen, Germany
- A Blue Origin technician conducts a vacuum chamber fit check for a fuel cell at Blue Origin’s facility in West Texas.
- Blue Origin conducted a drop test of the Blue Moon MK1 cargo lander leg to provide data to correlate design models for dynamic loads analysis.
- Artemis’s concept of Venturi Astrolab’s FLEX lunar terrain vehicle. Credit: Astrolab
- Artist’s concept of Lunar Outpost’s Lunar Dawn lunar terrain vehicle. Credit: Lunar Outpost
- Dual Tank Cryo Fluid Management Test Article. Credit: Blue Origin
- Artist’s concept of Intuitive Machines’ Moon RACER lunar terrain vehicle. Credit: Intuitive Machines
Early conceptual renderings of cargo variants of human lunar landing systems from NASA's providers SpaceX, left, and Blue Origin, right. Both industry teams have been given authority to begin design work to provide large cargo landers capable of offloading 15 metric tons of cargo, such as a pressurized rover, on the Moon's surface. (SpaceX and Blue Origin)

The European Service Module 6 structure ahead of shipment to the Airbus Integration Hall in Bremen, Germany

NASA Administrator Bill Nelson, left, and Japan’s Minister of Education, Culture, Sports, Science and Technology Masahito Moriyama, hold signed copies of an historic agreement between the U.S. and Japan. Under the agreement, Japan will design, develop, and operate a pressurized rover for crewed and uncrewed exploration on the Moon. NASA will provide the launch and delivery of the rover to the Moon as well as two Japanese astronaut missions to the lunar surface. Credit: JAXA/Toyota

Artist’s concept of a pressurized rover. Credit: JAXA/Toyota

BOLE DM-1 Booster Segment complete for Artemis IX
International Collaboration

PEOPLE

For Artemis II, which will be the first to send crew around the Moon, one of the four astronauts will be Canadian.

50 attendees representing 18 countries attended the Moon to Mars Architecture Workshop on Feb. 20, 2024.

HARDWARE

Artist's concept of Gateway.

European Service Module for the Orion spacecraft, provided by the European Space Agency.

LUNAR SCIENCE

An engineer prepares a small rover—part of NASA's CADRE (Cooperative Autonomous Distributed Robotic Exploration) technology demonstration that will be headed to the Moon.

PAYLOADS

Artemis I: Several international partners provided payloads to research key knowledge gaps for deep space exploration.

SPACE COMMUNICATIONS AND NAVIGATION

Deep Space Station 53 is a new waveguide antenna that went online in February 2022 at NASA's Deep Space Network’s ground station in Madrid.
We came in peace.

We return for all humanity.