

Europe delivers for Artemis III

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Third European Service Module readied for shipment. Credit: ESA-P. Sebirot

The European Service Module that will power the Orion spacecraft during the Artemis III mission to the moon will soon be on its way to the United States.

The service module has left the integration halls of Airbus Space in

Bremen, Germany and will now sail to NASA's Kennedy Space Center in the United States.

Built in Italy, assembled in Germany, and with contributions from all over Europe, the module's journey across the Atlantic Ocean will take 12 days on board the *Canopée*, the same ship that transported Ariane 6 to Europe's spaceport in French Guiana ahead of its inaugural flight.

ESA's European Service Module

The European Service Module propels NASA's Orion crew vehicle in space during Artemis missions and provides astronauts with essential resources including electricity, water, temperature control and air.

ESA has already provided two European Service Modules for NASA: The first was used during the successful Artemis I uncrewed mission, and the second is currently at NASA's Kennedy Space Center for testing in the lead up to the Artemis II mission scheduled next year.

Now, the third European Service Module is on its way to join the second ahead of its own mission.

The road so far

The third European Service Module began its journey in the manufacturing halls of Thales Alenia Space in Turin, Italy, where engineers built its chassis-like structure.

This backbone supports all components of the module including: 11 km of wiring, 33 engines, four tanks with 2,000 liters of propellant each, tanks with enough water and air for the crew during their mission and four 7-meter [solar arrays](#) providing enough electricity for two

households.

From October 2020, the module and its components arrived to Airbus Space in Bremen, Germany, for assembly. The parts came from more than 20 companies across more than 10 European countries, a testament to the cooperative effort behind this project.

Earlier this year, teams installed the third European Service Module's main engine. This engine already has nine missions under its belt, powering the Space Shuttle orbiters Challenger, Columbia and Endeavour.

The module will soon leave Europe on its way to the United States.

Once the European Service Module arrives at NASA's Kennedy Space Center, engineers will connect it to the Crew Module Adapter and later to the Crew Module itself, with plenty of testing before, in between and after to get the spacecraft ready ahead of the Artemis III mission.

Provided by European Space Agency

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