

National Aeronautics and
Space Administration



ORION

DECEMBER 2014

**THERE'S
YOUR NEW
SPACECRAFT,
AMERICA!**



NASA marked a major milestone on its journey to Mars as the Orion spacecraft completed its first voyage to space during Exploration Flight Test-1, traveling farther than any spacecraft designed for astronauts has been in more than 40 years.

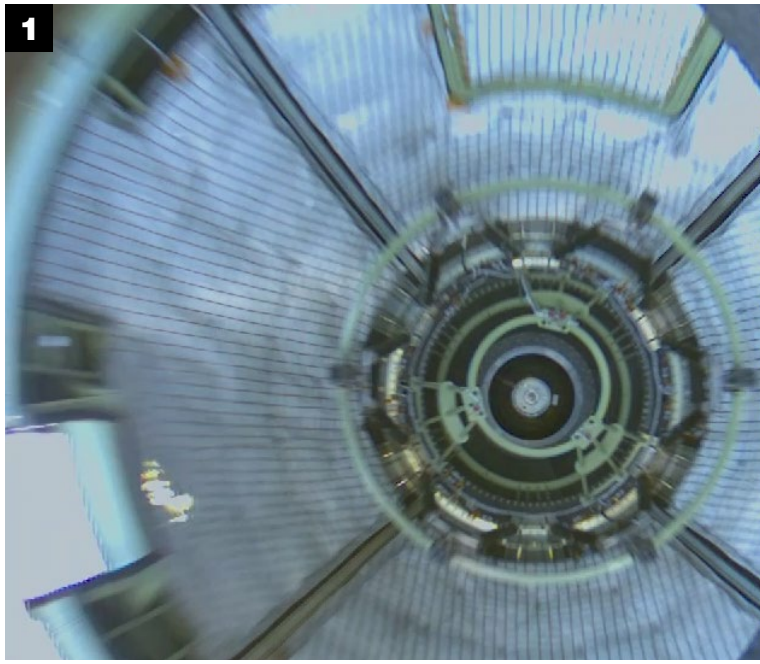
Orion blazed into the morning sky at 7:05 a.m. EST on Dec. 5, lifting off from Space Launch Complex 37 at Cape Canaveral Air Force Station in Florida on a United Launch Alliance Delta IV Heavy rocket.



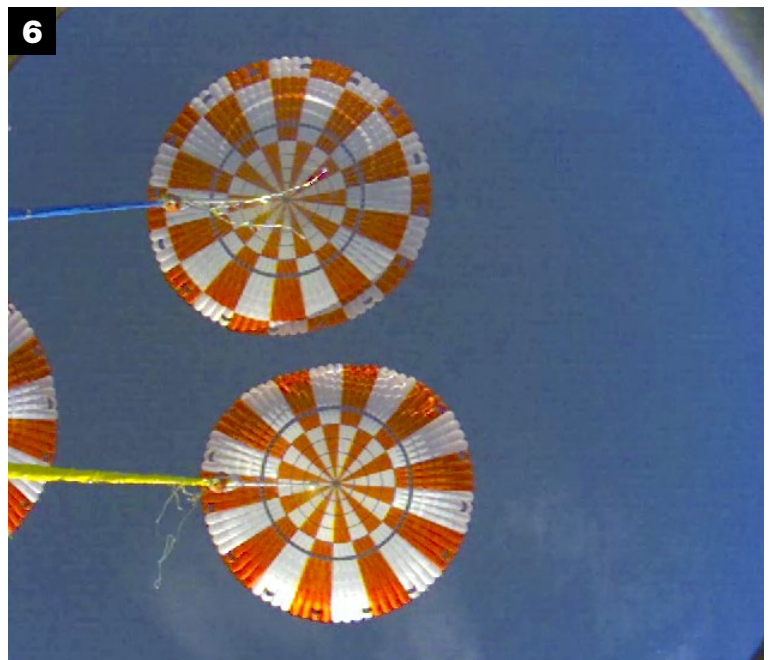
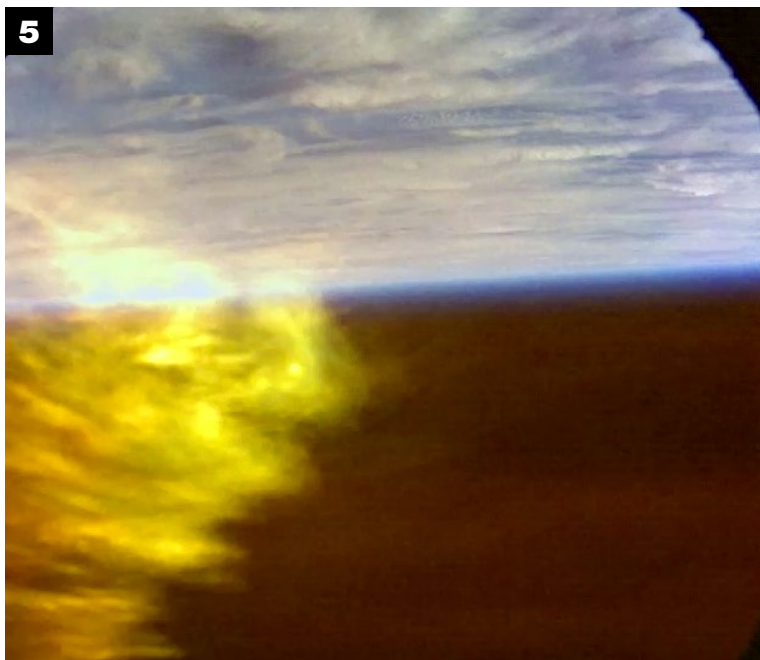
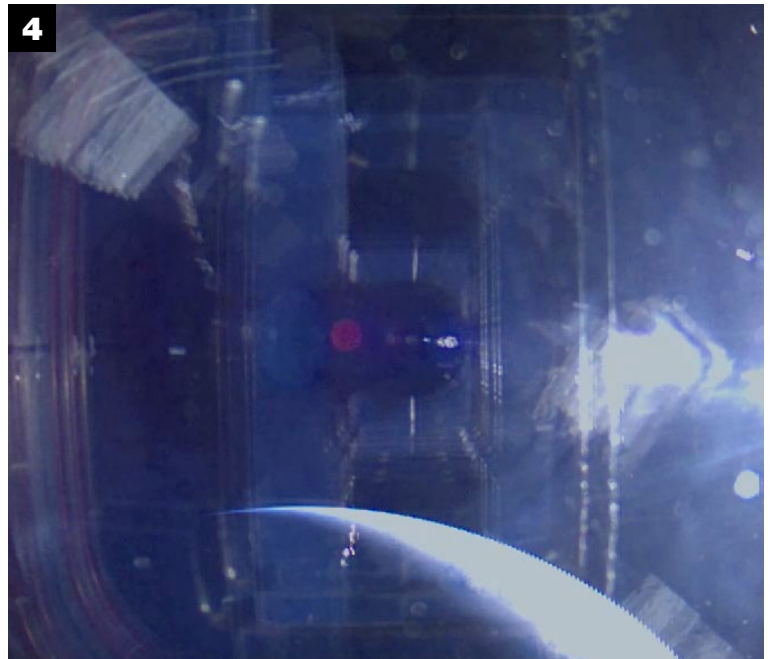


NASA and Lockheed Martin senior management were on hand to witness the picture perfect launch, as were Orion family and friends who gathered along the NASA causeway.





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During the uncrewed test, Orion traveled twice through the Van Allen belt where it experienced high periods of radiation, and reached an altitude of 3,600 miles above Earth. Orion also hit speeds of 20,000 mph and weathered temperatures approaching 4,000 degrees Fahrenheit as it entered Earth's atmosphere.



Previous page:

1. Launch abort system separates
2. Service module fairing panels separate
3. Crew module separates from service module
4. Earth seen through window from 3600 miles away
5. Plasma envelops crew module during reentry
6. Parachutes open as Orion returns to earth



Throughout the flight test, NASA and Lockheed Martin Orion management kept a watchful eye on the status of the vehicle. The flight tested many of the systems critical to crew safety, including key separation events, parachutes and the heat shield.

Top-left: Mike Hawes, Lockheed Martin vice president and Orion program manager; Mark Geyer, NASA Orion program manager; and Mark Kirasich, NASA Orion deputy program manager.

Top-right: Mike Sarafin, Exploration Flight Test-1 flight director.

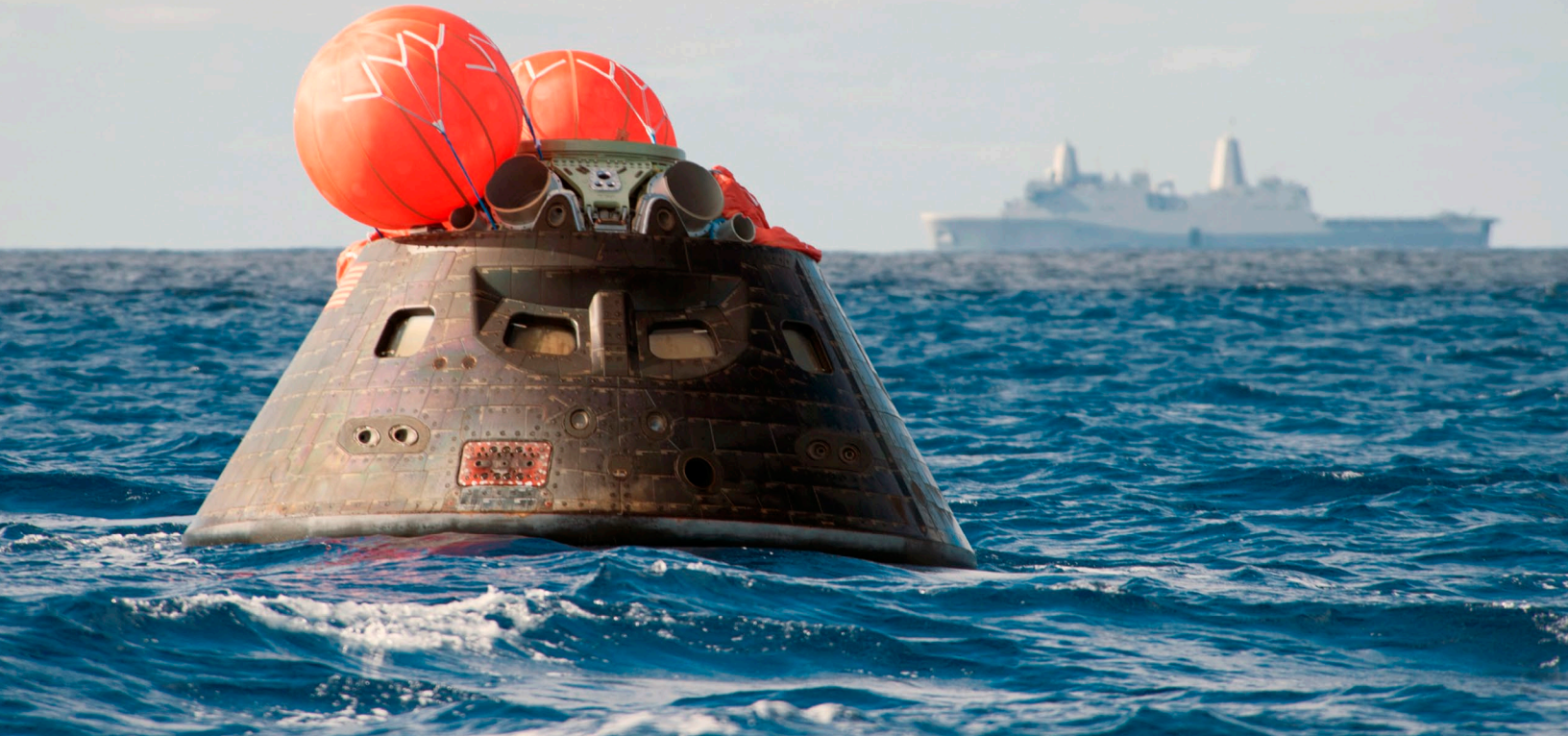
Left: Charles Bolden, NASA administrator, and William Gerstenmaier, associate administrator for Human Exploration and Operations for NASA.

Bottom-left: John Casper, astronaut and special assistant for Orion program integration, and Carol Webber, Lockheed Martin director, Exploration Mission 1.

Bottom-right: William Gerstenmaier, Mark Geyer, and Ellen Ochoa, director of NASA's Johnson Space Center.



After a 4.5-hour flight, the Orion crew module splashed in the Pacific Ocean, 600 miles southwest of San Diego. A team of NASA and U.S. Navy personnel aboard the USS Anchorage recovered the spacecraft and returned it to the U.S. Naval Base in San Diego.



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