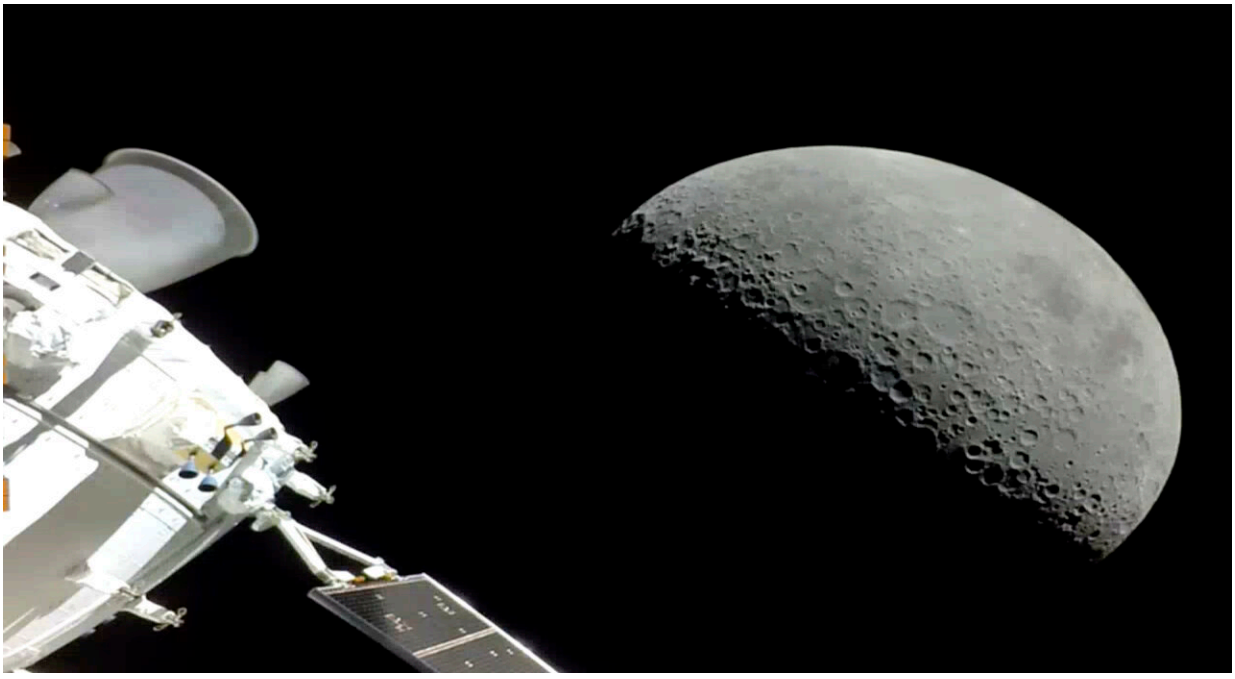
NASA capsule flies over Apollo landing sites, heads home

December 5 2022, by Marcia Dunn



NASA's Orion spacecraft flew past the moon on Monday, December 5, 2022. The crew capsule and its test dummies will aim for a Pacific Ocean splashdown on Sunday, December 11, 2022, off the coast of San Diego after a three-week test flight, setting the stage for astronauts on the next flight in a couple years. Credit: NASA via AP

NASA's Orion capsule and its test dummies swooped one last time around the moon Monday, flying over a couple Apollo landing sites before heading home.

Orion will aim for a Pacific splashdown Sunday off San Diego, setting the stage for astronauts on the next flight in a couple years.

The capsule passed within 80 miles (130 kilometers) of the far side of the moon, using the lunar gravity as a slingshot for the 237,000-mile (380,000-kilometer) ride back to Earth. It spent a week in a wide, sweeping lunar orbit.

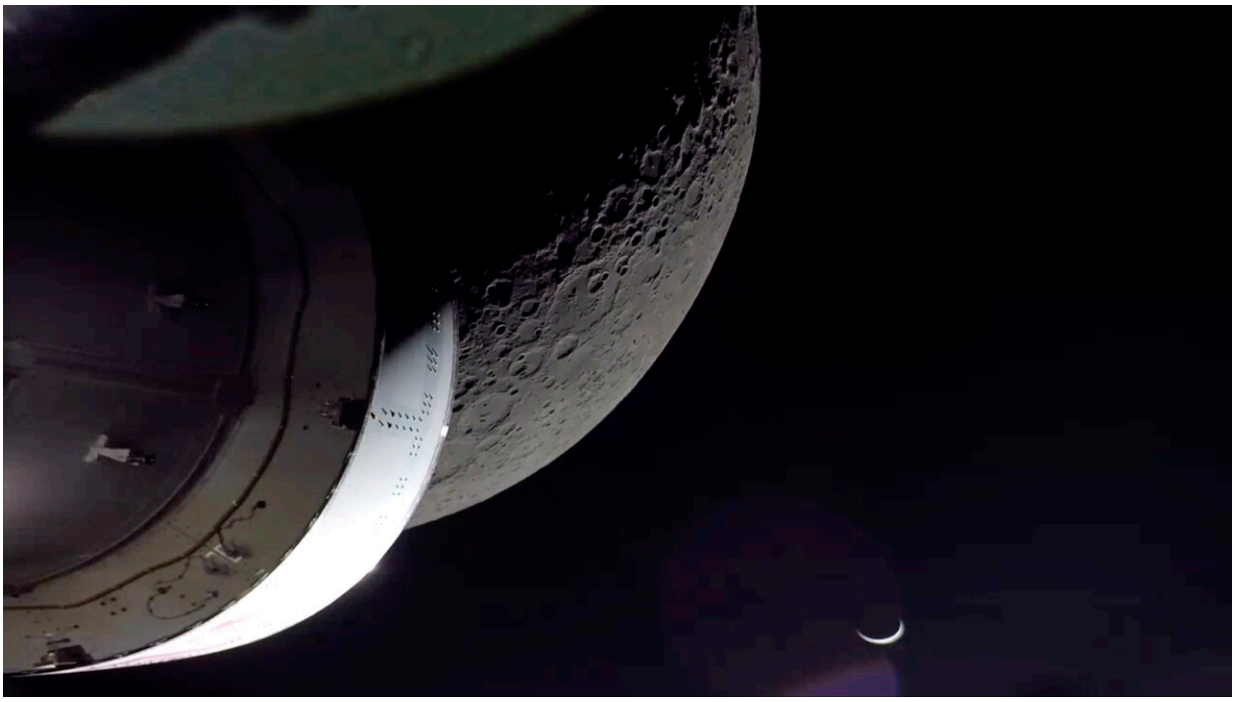
Once emerging from behind the moon and regaining communication with flight controllers in Houston, Orion beamed back photos of a close-up moon and a crescent Earth—Earthrise—in the distance.

"Orion now has its sights set on home," said Mission Control commentator Sandra Jones.

The capsule also passed over the landing sites of Apollo 12 and 14. But at 1,200 miles (1,900 kilometers) up, it was too high to make out the descent stages of the lunar landers or anything else left behind by astronauts more than a half-century ago. During a similar flyover two weeks ago, it was too dark for pictures. This time, it was daylight.

Deputy chief flight director Zebulon Scoville said nearby craters and other geologic features would be visible in any pictures, but little else.

"It will be more of a tip of the hat and a historical nod to the past," Scoville told reporters last week.



NASA's Orion spacecraft beamed back close-up photos of the moon and Earth on Monday, Dec. 5, 2022. The crew capsule and its test dummies will aim for a Pacific Ocean splashdown on Sunday, Dec. 11, 2022, off the coast of San Diego after a three-week test flight, setting the stage for astronauts on the next flight in a couple years. Credit: NASA via AP

The three-week test flight has exceeded expectations so far, according to officials. But the biggest challenge still lies ahead: hitting the atmosphere at more than 30 times the speed of sound and surviving the fiery reentry.

Orion blasted off Nov. 16 on the debut flight of NASA's most powerful rocket ever, the Space Launch System or SLS.

The next flight—as early as 2024—will attempt to carry four astronauts around the moon. The third mission, targeted for 2025, will feature the first lunar landing by astronauts since the Apollo moon program ended

50 years ago this month.

Apollo 17 rocketed away Dec. 7, 1972, from NASA's Kennedy Space Center, carrying Eugene Cernan, Harrison Schmitt and Ron Evans. Cernan and Schmitt spent three days on the lunar surface, the longest stay of the Apollo era, while Evans orbited the moon. Only Schmitt is still alive.

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This story has been updated to show that NASA now estimates the flyover of Apollo sites was 1,200 miles above the moon, not 6,000 miles.