

## NASA's LRO spots China's Chang'e 6 spacecraft on lunar far side

June 17 2024



A regional context map of the Chang'e 6 landing site. Color differences have been enhanced for clarity. The dark area is a basaltic mare deposit; bluer areas of the mare are higher-titanium flows. Contour lines marking 100-meter (about 328 feet) elevation intervals are overlaid to provide a sense of the topography. Image is about 118 miles (190 km) across. Credit: NASA/Goddard/Arizona State University



NASA's LRO (Lunar Reconnaissance Orbiter) imaged China's Chang'e 6 sample return spacecraft on the far side of the moon on June 7. Chang'e 6 landed on June 1, and when LRO passed over the landing site almost a week later, it acquired an image showing the lander on the rim of an eroded, 55-yard-diameter (about 50 meters) crater.

The LRO Camera team computed the <u>landing site</u> coordinates at about 42 degrees south latitude, 206 degrees east longitude, at an elevation of about -3.27 miles (-5,256 meters).

The Chang'e 6 landing site is situated toward the southern edge of the Apollo basin (about 306 miles or 492 km in diameter, centered at 36.1 degrees south latitude, 208.3 degrees east longitude). Basaltic lava erupted south of Chaffee S <u>crater</u> about 3.1 billion years ago and flowed downhill to the west until it encountered a local topographic high, likely related to a fault.

Several wrinkle ridges in this region have deformed and raised the mare surface. The landing site sits about halfway between two of these prominent ridges. This basaltic flow also overlaps a slightly older flow (about 3.3 billion years old), visible further west, but the younger flow is distinct because it has higher iron oxide and titanium dioxide abundances.





This image from NASA's Lunar Reconnaissance Orbiter shows China's Chang'e 6 lander in the Apollo basin on the far side of the Moon on June 7, 2024. The lander is the bright dot in the center of the image. The image is about 0.4 miles wide (650 meters); lunar north is up. Credit: NASA/Goddard/Arizona State University



## Provided by NASA

Citation: NASA's LRO spots China's Chang'e 6 spacecraft on lunar far side (2024, June 17) retrieved 29 June 2024 from <u>https://phys.org/news/2024-06-nasa-lro-china-spacecraft-lunar.html</u>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.