LROC | LUNAR RECONNAISSANCE ORBITER CAMERA
www.lroc.asu.edu

# SMBC x Hakuto-R Venture Moon Mission 2 RESILIENCE Lunar Lander Primary Site

EDITION 1 SHEET 1 of 1

APRIL 30, 2025

## REFERENCE MAP

69.508°N 300.099°E — 69.513°N 50.688°E

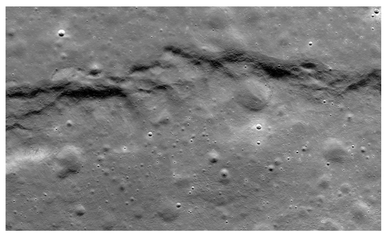
Philolaus
Anaxagoras
Meton
Epigenes
W. Bond
Ontahelle
Archytas
Aristoteles
Eudoxus
Plato
Montes Alpes
Mare Frigoris
Mare Imbrium

40.795°N 333.055°E — 40.798°N 17.736°E

SCALE 1:1,200,000

3 2.5 2 1.5 1 0.5 0 KILOMETERS 1 2 3

The map scale (100 m/pix) is accurate only at the center of the projection when printed at full size (300 ppi).
Distortion increases with distance from the center.

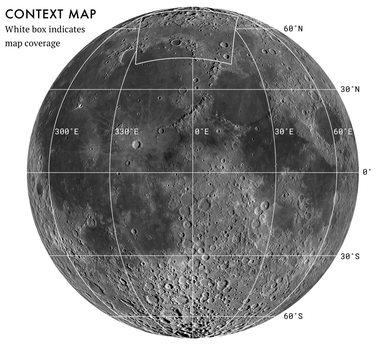


Partial view of a wrinkle ridge located ~10 km north of the primary landing site. Image width is 6 kilometers centered at 60.81°N, 355.24°E. LROC orthomosaic NAC_DTM_NFRIGORIS01 (downsampled to 16 m/pix).

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CONTEXT MAP
White box indicates map coverage

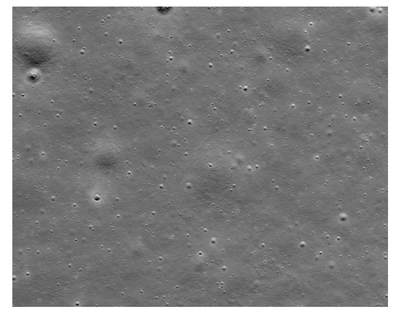



## ABOUT THIS MAP

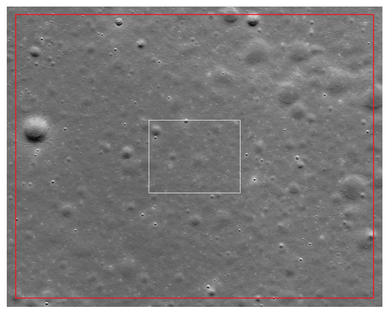
The ispace SMBC x HAKUTO-R Venture Moon Mission 2 RESILIENCE lunar lander launched on 15 January 2025 and is scheduled to land on 06 June. The primary landing site is in a complex volcano-tectonic terrain within Mare Frigoris. Here, the mare basalts are 3.6 billion years old and, over time, were deformed by movement along a massive fault plane that resulted in distinctive linear features known as wrinkle ridges. The nearest wrinkle ridge is located 10 kilometers to the north, and that fault scarp rises more than 120 meters above the mare surface.

The mosaic (above) and context map (left) were created from 1,300 Lunar Reconnaissance Orbiter Camera (LROC) Wide Angle Camera images acquired during a two-week period in December 2010. During that time, the orbit track of the Lunar Reconnaissance Orbiter progressed across the surface from east to west (right to left), allowing for complete coverage of the nearside. Each image was projected onto a digital terrain model and mosaicked into this seamless product.

The mosaic was created with a pixel scale of 100 meters in an orthographic projection centered at 60.5°N, 355.4°E. The graticule is shown in 4° intervals of longitude and 2° intervals of latitude. Notable and geologically significant features have been labeled, prioritizing prominence and labeling relative to feature size and visibility. Inquiries concerning the availability of this map should be directed to the LROC Science Operations Center, Intuitive Machines Arizona, Phoenix, 85004.



Full resolution view (90 cm/pix) of the primary landing site shown as a white box (right). Image width is 1400 meters. LROC orthomosaic NAC_DTM_NFRIGORIS01.



Enhanced view (16 m/pix) of the landing area shown as a red box on the map (top). Image width is 6 kilometers centered at 60.50°N, 355.40°E. LROC orthomosaic NAC_DTM_NFRIGORIS01.