OBSERVE the MOON

International OBSERVE THE MOON NIGHT 2020

SATURDAY SEPTEMBER 26TH

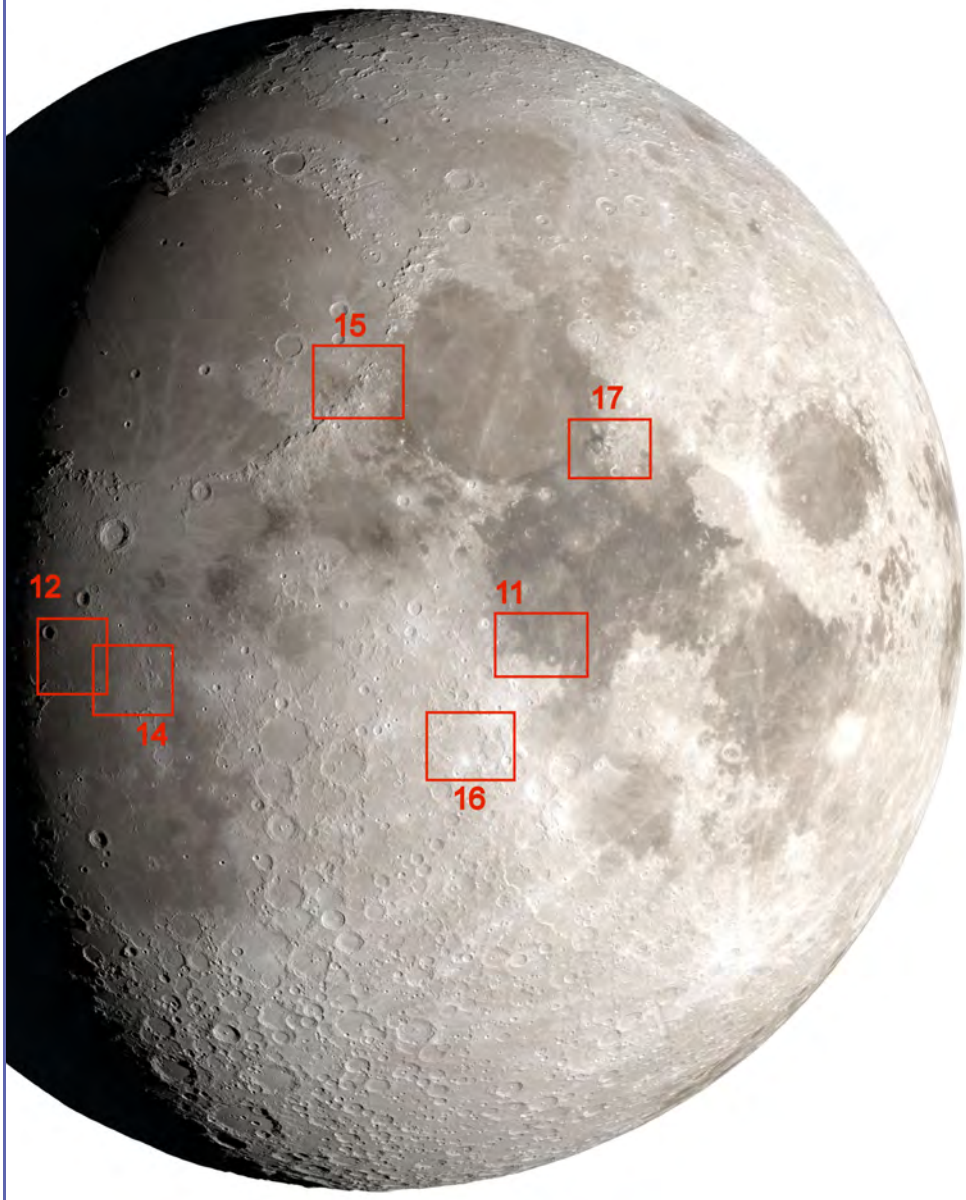
NORTHERN HEMISPHERE MOON MAP with HUMAN LANDING SITES

Northern Hemisphere Moon Map

This map depicts the Moon as it will appear from the northern hemisphere at approximately 2 a.m. GMT and 10 p.m. EDT on International Observe the Moon Night, September 26, 2020. Many of the best views will occur along the terminator (the line between the day and night side of the Moon).

Human Lunar Landing Sites

Between July 1969 and December 1972 a total of 12 astronauts landed on the surface of the Moon as part of the Apollo missions. Apollo missions 11, 12, 14, 15, 16, and 17 each landed in different locations on the lunar surface. These locations, each fascinating for their own particular reasons, sampled a wide range of lunar geology and terrain, from smooth mare plains to rugged ancient highlands. All six landing sites are visible tonight. Use this map and the magnified charts on the other side of this sheet to find and observe all six historic sites.



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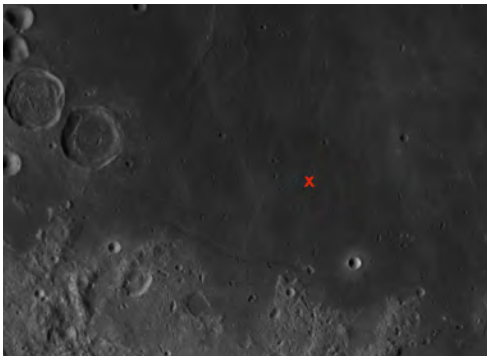
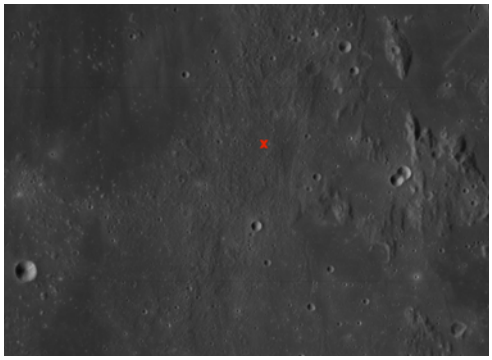
Selected Objects for Telescopic Viewing



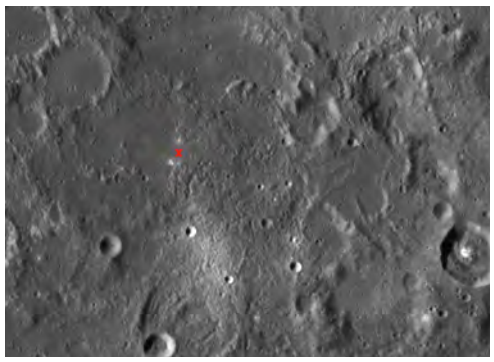
Apollo 11: The first human landing site was on the smooth, flat plains of the Sea of Tranquility. Despite how flat the area looks from Earth and from lunar orbit, astronauts Armstrong and Aldrin had to maneuver their lander at the last minutes of their descent in order to avoid a field of giant boulders.

Apollo 12: In November 1969, a pinpoint landing brought astronauts Conrad and Bean down right next to the robotic Surveyor 3 spacecraft, which had landed there in April 1967. The astronauts collected samples of material blasted from the formation of Copernicus crater over 350 km away and 800 million years ago.

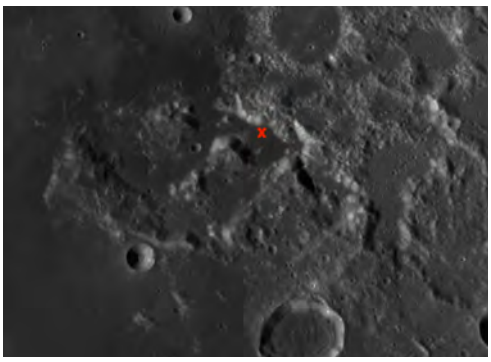


Apollo 14: Astronauts Shepard and Mitchell landed in a broad expanse of low, rolling hills in February 1971. Rock samples returned by the mission told the story of how this landscape was formed nearly four billion years ago by deposits of debris blasted from the formation of the basin now occupied by Mare Imbrium.

Apollo 15: In July 1971, astronauts Scott and Irwin landed at the edge of Mare Imbrium at the base of the towering Apennine Mountains. Driving their rover across the mare and up the lower mountain slope, they gathered samples from the dark mare plains and the surrounding light lunar highlands.



Apollo 16: This was the first and only mission to land in the rugged lunar highlands. In April 1972, astronauts Young and Duke collected rock samples more than 4 billion years old. These showed that the ancient lunar crust formed from rock that crystalized and floated to the top of a global lunar magma ocean.



Apollo 17: The final Apollo mission to land on the Moon visited the spectacular Taurus-Littrow Valley, deeper than Earth's Grand Canyon. In December 1972, astronauts Cernan and Schmitt (the first professional geologist on the Moon) explored an active fault scarp, a gigantic landslide deposit, and brought back samples including beads of volcanic glass erupted in an ancient lunar fire fountain.

Detailed images are from **NASA's Lunar Reconnaissance Orbiter** with north up and lunar west to the left. Find more high-resolution images of the Moon at:

lroc.sese.asu.edu
trek.nasa.gov/moon