



International Observe the Moon Night 2026



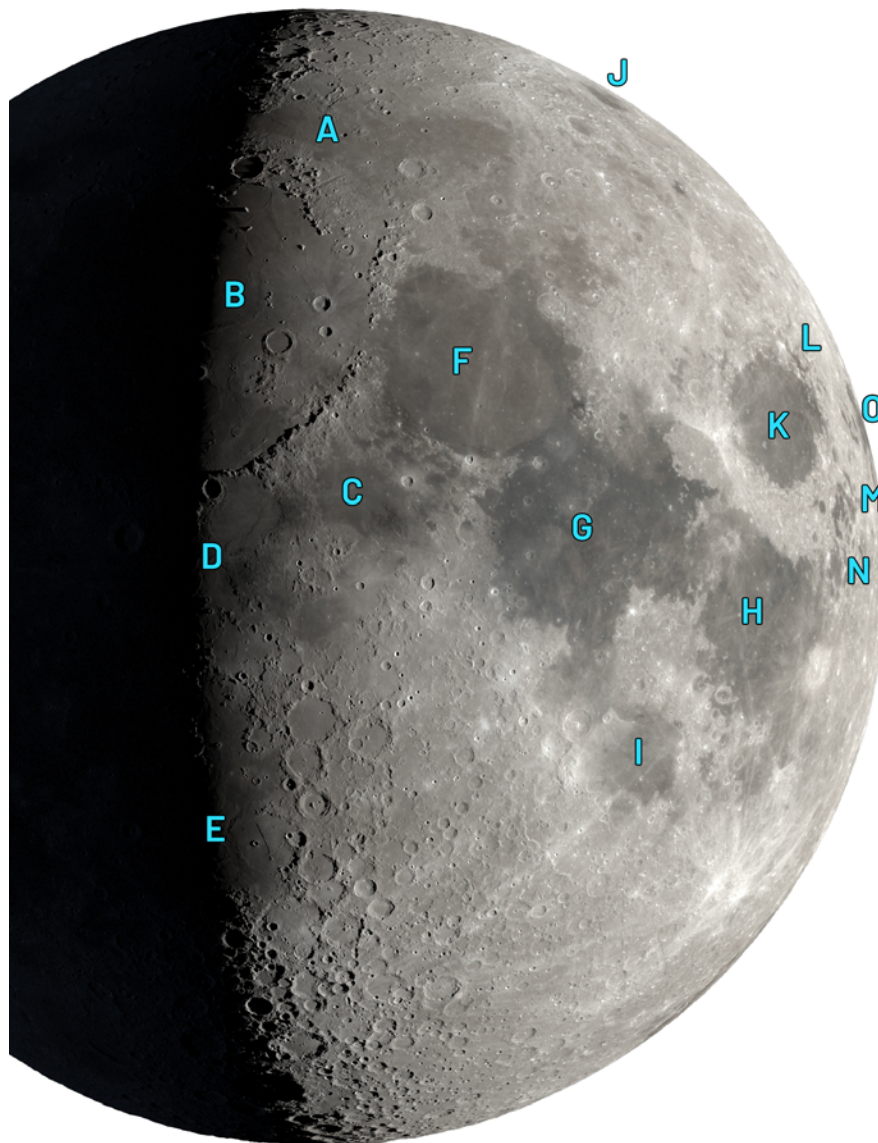
LUNAR MARIA (SEAS) • NORTHERN HEMISPHERE • SATURDAY, SEPTEMBER 19

Moon Map

This map depicts the Moon as it will appear from the northern hemisphere at approximately 8:00 PM EDT and 5:00 PM PDT on International Observe the Moon Night, September 19, 2026 (00:00 UTC September 20).

Lunar Maria (Seas)

You can see a number of maria tonight. Once thought to be seas of water, these are actually large, flat plains of solidified basaltic lava. They can be viewed in binoculars or even with the unaided eye. Tonight, you may be able to identify 15 maria on the near side of the Moon.



- A** Mare Frigoris (Sea of Cold)
- B** Mare Imbrium (Sea of Rains)
- C** Mare Vaporum (Sea of Vapors)
- D** Mare Insularum (Sea of Isles)
- E** Mare Nubium (Sea of Clouds)
- F** Mare Serenitatis (Sea of Serenity)
- G** Mare Tranquillitatis (Sea of Tranquility)
- H** Mare Fecunditatis (Sea of Fertility)

- I** Mare Nectaris (Sea of Nectar)
- J** Mare Humboldtianum (Humboldt's Sea)
- K** Mare Crisium (Sea of Crises)
- L** Mare Anguis (Serpent Sea)
- M** Mare Undarum (Sea of Waves)
- N** Mare Spumans (Sea of Foam)
- O** Mare Marginis (Border Sea)

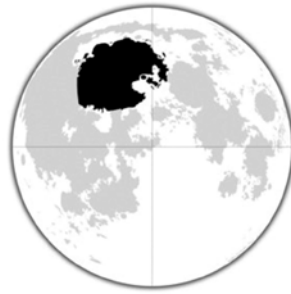
This map is designed for use on September 19, 2026, but can be used on nearby dates or anytime the Moon is at or near the same phase.

Map generated with NASA's Moon Phase and Libration, 2026
(<https://svs.gsfc.nasa.gov/5587>)

INTERNATIONAL OBSERVE THE MOON NIGHT 2026 • LUNAR MARIA (SEAS) • NORTHERN HEMISPHERE



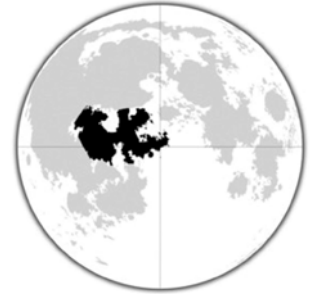
A. Mare Frigoris
(Sea of Cold)



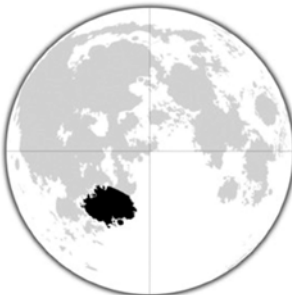
B. Mare Imbrium
(Sea of Rains)



C. Mare Vaporum
(Sea of Vapors)



D. Mare Insularum
(Sea of Isles)



E. Mare Nubium
(Sea of Clouds)



F. Mare Serenitatis
(Sea of Serenity)



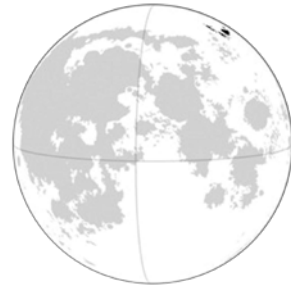
G. Mare Tranquillitatis
(Sea of Tranquility)



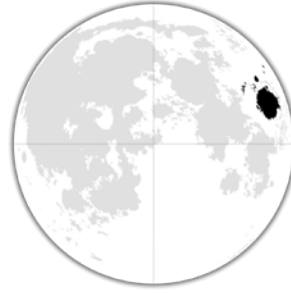
H. Mare Fecunditatis
(Sea of Fertility)



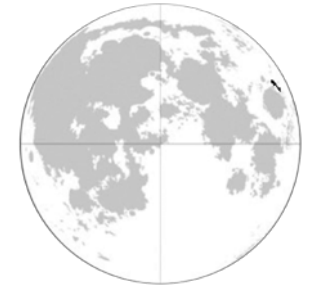
I. Mare Nectaris
(Sea of Nectar)



J. Mare Humboldtianum
(Humboldt's Sea)



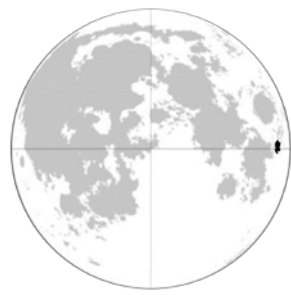
K. Mare Crisium
(Sea of Crises)



L. Mare Anguis
(Serpent Sea)



M. Mare Undarum
(Sea of Waves)



N. Mare Spumans
(Sea of Foam)



O. Mare Marginis
(Border Sea)

These charts show the positions and extents of the 15 lunar seas visible on the Moon tonight, with north up and lunar west to the left. You may be able to find the larger seas without any special equipment. Smaller seas may be challenging to find even through binoculars. Combine these charts with the map on the previous page and see how many of the Moon's maria you can track down tonight!



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National Aeronautics and
Space Administration

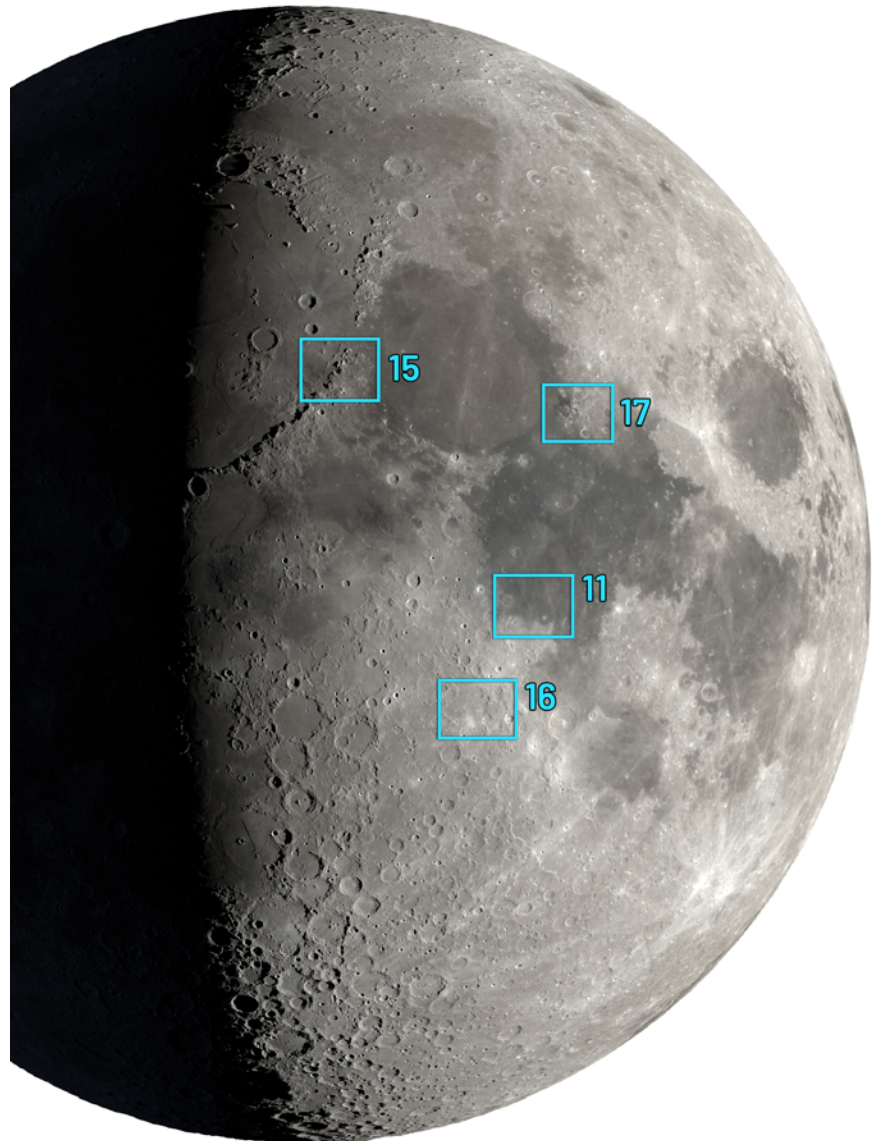


HUMAN LANDING SITES • NORTHERN HEMISPHERE • SATURDAY, SEPTEMBER 19

Moon Map

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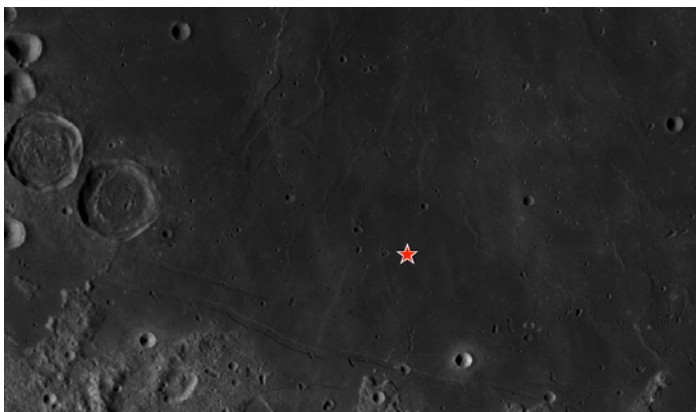
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Lunar Landing Sites

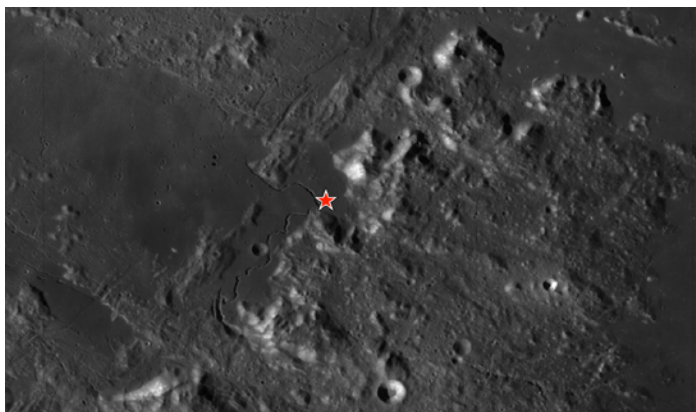
Between July 1969 and December 1972, a total of 12 astronauts landed on the surface of the Moon for six of the Apollo missions. Apollo missions 11, 12, 14, 15, 16, and 17 each landed in different locations on the lunar surface. These locations, each fascinating for their own particular reasons, sampled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

Map generated with NASA's Moon Phase and Libration, 2026
(<https://svs.gsfc.nasa.gov/5587>)



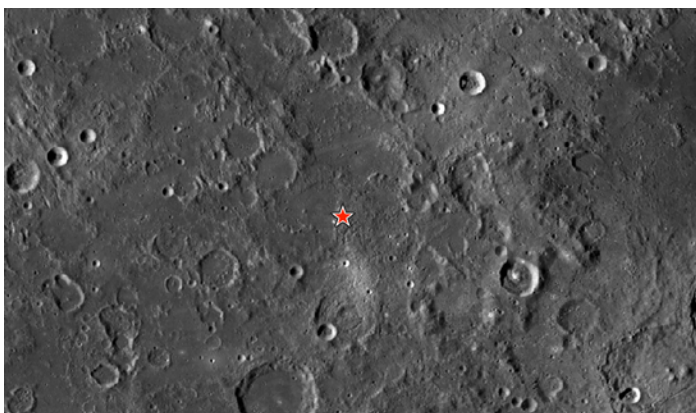
Apollo 11

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 Neil Armstrong and Edwin "Buzz" Aldrin had to maneuver their lander in the final minutes of their descent in order to avoid a field of giant boulders.



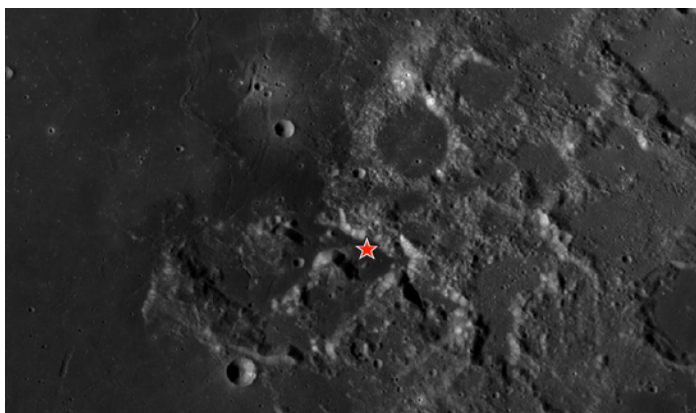
Apollo 15

In July 1971, astronauts David Scott and James 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 plains and the surrounding, light-colored lunar highlands.



Apollo 16

This was the first and only mission to land in the rugged lunar highlands. In April 1972, astronauts John Young and Charles Duke collected rock samples more than 4 billion years old. These showed that the ancient lunar crust formed from rock that crystallized 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, which is deeper than Earth's Grand Canyon. In December 1972, astronauts Eugene Cernan and Harrison "Jack" Schmitt (the first professional geologist on the Moon) explored an active fault scarp, a gigantic landslide deposit, and brought back samples that included beads of volcanic glass erupted in an ancient lunar fire fountain.



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SELECTED OBJECTS FOR TELESCOPIC VIEWING • NORTHERN HEMISPHERE • SATURDAY, SEPTEMBER 19

Moon Map

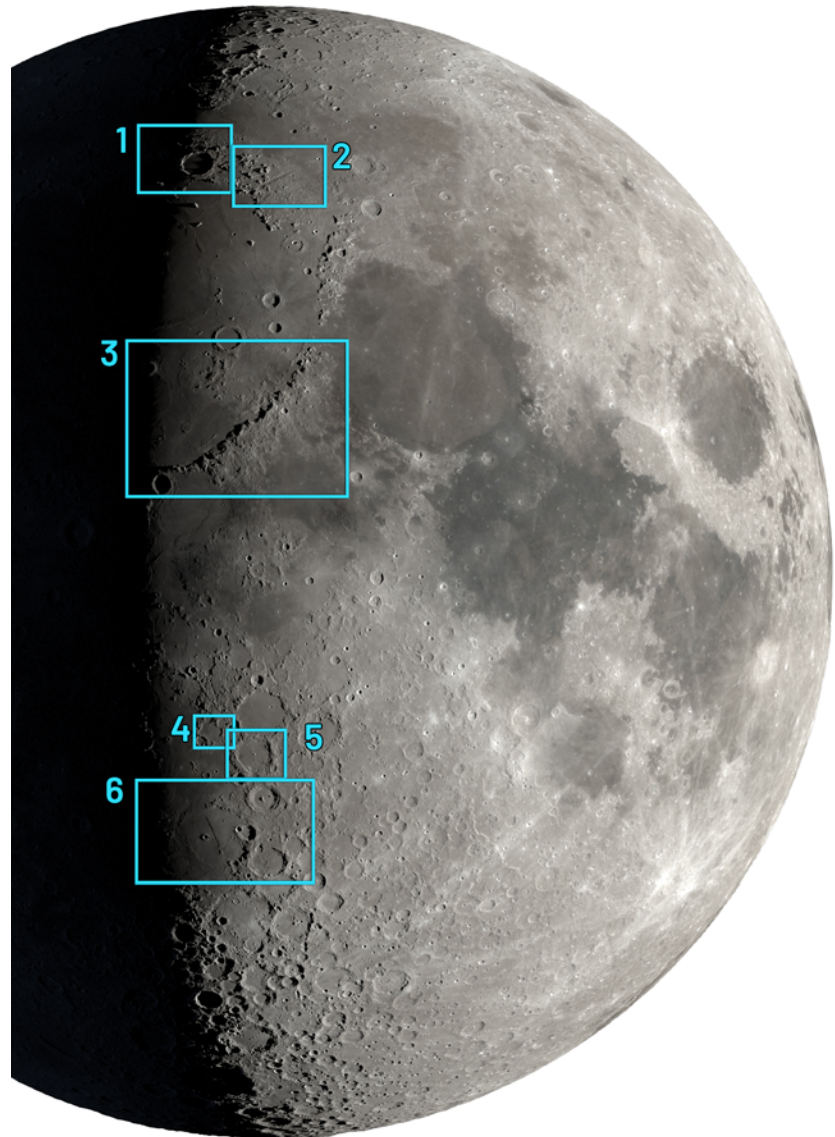
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Selected Telescopic Objects

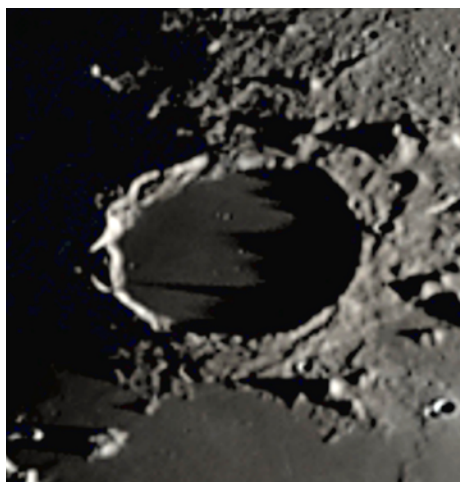
Some of the more interesting lunar landforms that have favorable lighting for viewing tonight are identified here. Details for each are on the next page.

- 1 Plato Crater
- 2 Alpine Valley
- 3 Apennine Mountains
- 4 Catena Davy
- 5 Alphonsus Crater
- 6 Straight Wall



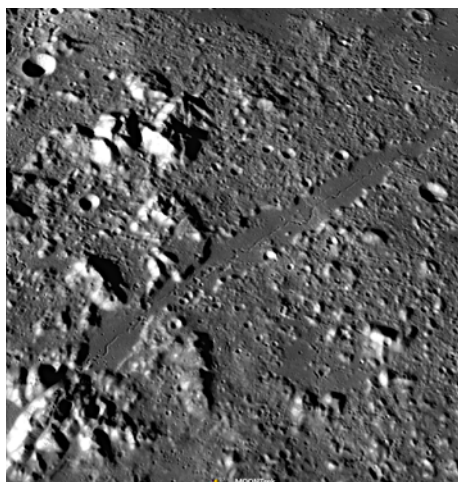
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1. Plato Crater

Plato is a large impact crater with a diameter of 63 mi (101 km). Its interior was flooded by lava long ago, leaving a smooth, flat floor. Observe the first rays of local sunrise crossing Plato and lighting up the crater's raised western rim. Also note the elongated shadows of peaks along the eastern rim stretching across the crater's floor.



2. Alpine Valley

Also known as Vallis Alpes, this is a straight, flat-floored valley stretching for 103 mi (166 km) through the Moon's Alps mountain range. It extends from the Imbrium Basin at its southwestern end to Mare Frigoris in the northeast. It was once thought to be a gouge left by an extremely low-angle asteroid impact plowing through the highlands of the Alps. However, we now realize this is likely an example of a lunar graben, an area where a section of the Moon's crust dropped downward between two parallel faults.



3. Apennine Mountains

The most spectacular of the Moon's mountain ranges, curving in an arc northeast of Eratosthenes Crater for a distance of about 600 km. Its peaks rise to heights of roughly 3.4 mi (5.5 km). The range features a dramatically steep, sharp northwestern face looking down upon the flat plains of Mare Imbrium, with a far more gradual slope extending to the southeast. The range is actually the southeastern portion of the rim of the gigantic Imbrium Basin.



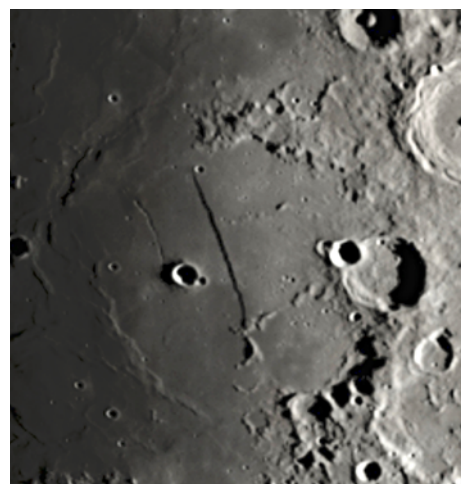
4. Catena Davy

Catena Davy is a fascinating 28-mile-long (45-kilometer-long) chain of more than 20 small craters, most measuring about 1 to 2 km across. Volcanic craters can form chains on the Moon, but the Davy craters don't appear to be volcanic. Secondary craters formed by debris ejected from major impact craters often form chains, but the Davy chain doesn't align with any major impact. Instead, the chain seems to mark where a comet or small asteroid was torn apart by the Earth's and/or the Moon's gravity before the individual pieces slammed into the Moon.



5. Alphonsus Crater

Alphonsus, measuring 73 mi (118 km) across, is a fine example of a floor-fractured crater. Its floor was pushed up like a piston by magma rising beneath it long ago. As it was forced upward, a network of fractures formed across the crater floor. These make for excellent challenge objects for large amateur telescopes. Easier to see, but still a fun challenge, are several dark patches on the floor. These are deposits of volcanic ash marking locations where lava erupted after making its way up through the fractures.



6. Straight Wall

Also known as Rupes Recta, the Straight Wall is an outstanding example of a lunar fault. It appears as a long, straight scarp stretching about 100 mi (160 km) across the lunar surface. Along this scarp, the Moon's crust forms a step, with the terrain rising from west to east. The terrain on the eastern side is about 1300 ft (400 m) higher than the terrain to the west. Although the scarp looks like a sheer cliff, this impression is created by the low-angle lighting under which the feature is best seen. In reality, the slope is only about 10 degrees. Tonight, the face is in shadow, showing up as a dark line.