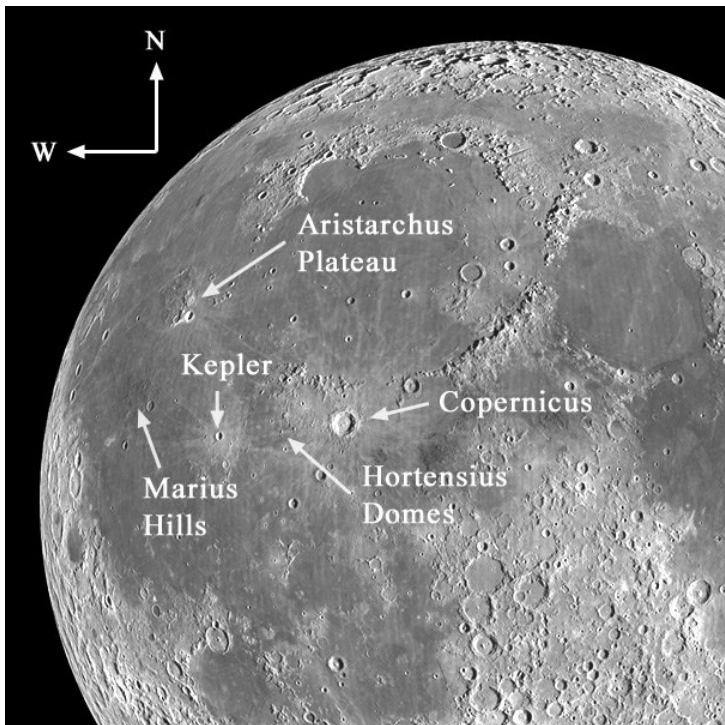


# Western Seas

## What They Are

The western “seas” are the smooth, dark regions covering most of the western half of the moon’s disk. They are ancient lava flows that filled impact basins hundreds of miles (or more!) in diameter early in the moon’s history, and are home to later impact craters over 60 miles in diameter and possible volcanic domes.



## When To See Them

The immense western seas are seen for nearly three weeks, from the waxing half moon to nearly the new moon. Watch for these features:

**Copernicus:** seen from about 10 to 19 days after new, appearing as a bright spot with rays for several nights around full moon.

**Kepler:** visible about 12 to 25 days after new, seen as a bright spot with rays around full moon.

**Aristarchus Plateau:** seen as a bright spot from about 13 to 23 days after new, then fading for a few nights as Aristarchus crater becomes visible.

**Marius Hills:** seen about 26 days after full, appearing as low hills. Very challenging!

**Hortensius Domes:** look 10 or 11 days after new, and again on day 24. Very challenging!

## Where They Are

The western seas dominate the western half of the moon. Copernicus, Kepler, and Aristarchus Plateau stand out pretty strongly in the dark seas.

The Marius Hills are just west of the crater Marius, which makes a noticeable triangle with Kepler and Aristarchus at the other corners.

The Hortensius Domes can be seen about halfway between Copernicus and Kepler, just south of an imaginary line connecting those craters.

## Why They're Cool

Imagine how vast these lava flows are to cover that much of the moon! The big craters really stand out, many with ray systems. Their appearances change radically as their shadows disappear near full moon! The Marius Hills and Hortensius Domes may be similar to fields of cinder cone volcanoes here on Earth. They are tough to spot, seen on the edge of visibility only when the sun angle is low. Look for the bright rims and shadows in craters near them, then look for low features where the bright and shadowed sides seem reversed.