

January 2023

# The Moon Occults Mars Again!

▲ The Moon and Mars appear to almost touch moments before the occultation in this simulation of the event.

## Asheville, NC, Observing Prospects

Like last month (December 2022), many parts of the United States will see the planet Mars occulted by the Moon (covered up by the closer orbiting Moon) -- this time on the night of **January 30/31**. Again, as in December, this event will not be visible as an "occultation" for observers in the Asheville area. That being said, our region will still experience a magical event, as Mars will appear rather close to the lunar limb. From our region, Mars will not appear close enough to even be partially covered by the Moon. Our view would be best described as a planetary "close passing" along the upper edge of the Moon's disk -- a passing that brings Mars within just 19 arc minutes of the lunar limb -- not nearly as close as in December, when it came within just 3 arc minutes.

This event will occur in the constellation Taurus, the Bull, high in the western skies, with a closest approach of Mars occurring in the Asheville area about **12:45 a.m. EST on January 31**. View this event with binoculars or a telescope at low power. You should easily be able to observe both the waxing gibbous Moon and Mars in the same eyepiece field of view. Using a moon filter or a polarizing filter will help to mitigate the glaring light of the gibbous Moon. Dress warmly for this event, and enjoy the view along the "ecliptic" (the approximate path that the Moon, the Sun, and the planets trace across the sky), where this action takes place.

## Another Moon and Mars Close Call

LAST MONTH, U.S. observers in the southeastern states and along the Atlantic Seaboard missed out as the Moon covered Mars. This month presents a sweet consolation prize. **On the night of January 30–31, 2022**, the Moon will eclipse the Red Planet again, with the event visible across the southeastern U.S., most of Texas, and westward to southern California. It can also be seen throughout Mexico, Cuba, and most of Central America.

Compared to December's occultation, Mars has now faded to magnitude  $-0.3$ , but it will still be an impressive sight when the dark limb of the waxing gibbous Moon slowly smothers the ruddy orb and then, later, sets it free. From Albuquerque, New Mexico, the lunar limb contacts Mars at 10:04 p.m. local time on January 30th, taking 68 seconds to completely cover the planet. Mars reappears at the bright limb at 10:45 p.m.

Here are the approximate local times of disappearance and reappearance for several major cities (p.m. times are for the night of the 30th, a.m. refers to the morning of the 31st): Miami, FL (12:37 a.m. to 1:27 a.m.); Jackson, MS (11:32 p.m. to 12:06 a.m.); New Orleans, LA (11:26 p.m. to 12:16 a.m.); Dallas, TX (11:18 p.m. to 12:03 a.m.); Phoenix, AZ (9:45 p.m. to 10:44 p.m.); Los Angeles, CA (8:36 p.m. to 9:29 p.m.); Mexico City, Mexico (10:59 p.m. to 12:27 a.m.).