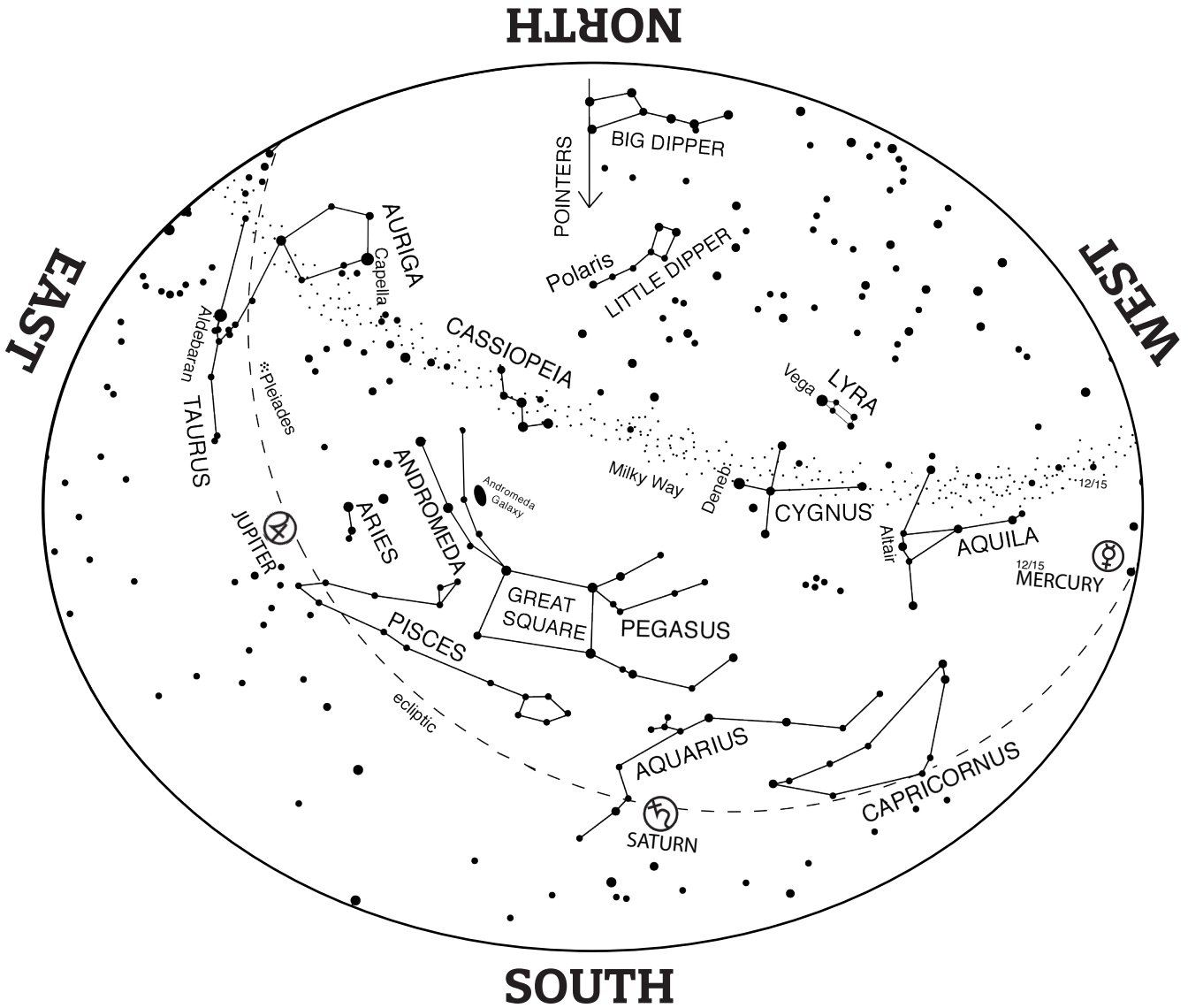


Starmap

NOVEMBER/DECEMBER 2023



601 Light Street • Baltimore's Inner Harbor
410.685.5225 • www.marylandsciencecenter.org



TO USE MAP:

Hold the map in front of you so that the direction you are facing is on the bottom. The stars on the lower half on the map will match up with the stars in the sky. The center of the map is directly overhead in the sky. Constellation and star pattern names are all capitalized. Names of stars have only the first letter capitalized. The map is valid within an hour of:
7:30pm Mid-Nov EST
5:30pm Mid-Dec. EST

MAGNITUDE is a measure of a star's brightness. The lower the number, the brighter the star

- 1st or brighter magnitude star
- 2nd magnitude star
- 3rd magnitude star
- 4th or fainter magnitude star



ECLIPTIC:

The imaginary path of the Sun through the year. Constellations of the Zodiac surround the Ecliptic and the Moon and planets appear along it.

Starmap

NOVEMBER/DECEMBER 2023

IN THE NOVEMBER/DECEMBER SKY

- | | |
|---|---|
| <p>Nov. 2
Jupiter at opposition
(See <i>Celestial Highlights</i>)</p> <p>Nov. 3
Moon near Pollux and Castor
(morning)</p> <p> Nov. 5
Last Quarter Moon
Eastern Standard Time Returns
(See <i>Celestial Highlights</i>)</p> <p>Nov. 9
Moon and Venus
(morning)</p> <p>Nov. 11
Moon near Spica
(morning)</p> <p> Nov. 13
New Moon
Uranus at opposition
(See <i>Celestial Highlights</i>)</p> <p>Nov. 17
Mars in conjunction with Sun</p> <p> Nov. 20
First Quarter Moon near Saturn</p> <p>Nov. 25
Moon near Jupiter</p> <p>Nov. 26
Moon near Pleiades</p> <p> Nov. 27
Full Moon</p> <p>Nov. 29
Venus near Spica
(morning)</p> <p>Nov. 30
Moon near Pollux</p> | <p>Dec. 4
Mercury at greatest elongation
(See <i>Celestial Highlights</i>)</p> <p> Dec. 5
Last Quarter Moon</p> <p>Dec. 8
Moon near Spica</p> <p>Dec. 9
Moon near Venus
(morning)</p> <p> Dec. 12
New Moon</p> <p>Dec. 14
Geminid Meteor Shower
(See <i>Celestial Highlights</i>)</p> <p>Dec. 17
Moon near Saturn</p> <p> Dec. 19
First Quarter Moon</p> <p>Dec. 21
Winter Solstice
(See <i>Celestial Highlights</i>)</p> <p>Dec. 21/22
Moon near Jupiter</p> <p>Dec. 23
Moon near Pleiades</p> <p>Dec. 22
Mercury in conjunction
with Sun
(See <i>Celestial Highlights</i>)</p> <p> Dec. 26
Full Moon</p> <p>Dec. 27/28
Moon near Pollux</p> |
|---|---|

CELESTIAL HIGHLIGHTS

Eastern Standard Time returns, November 5, 2:00 am — Set your clock back one hour Saturday night, November 4.

Moon Pairings — The Moon is near Venus on November 9 and December 9. The Moon is near Jupiter on November 25, December 21 and 22. The Moon is near the Pleiades star cluster on November 26 and December 23.

Planet Oppositions and Conjunctions with Sun — Opposition describes when an object appears opposite the Sun in the sky as seen from Earth. Planets in opposition are visible all night. Jupiter is in opposition on November 2. Uranus is in opposition on November 13, but you'll need a telescope to see it. In contrast, conjunction means that two objects appear in the same place in the sky as seen from Earth. Planets in conjunction with the Sun are not visible. Mars is in conjunction with the Sun on November 17. Mercury is in conjunction with the Sun on December 22.

Geminid Meteor Shower — The Geminids peak on the morning of December 14. Look toward the stars of Gemini, the Twins, in the eastern sky after dark to watch for Geminid meteors.

Greatest Elongation of Mercury — Since Mercury has an orbit inside of Earth's orbit it doesn't go through opposition. Instead, it goes through greatest elongation, where it is the farthest separation from the Sun from our perspective. Mercury's greatest elongation occurs on December 4.

Winter Solstice, Thursday, December 21 — is the shortest day of the year for the Northern Hemisphere. The Sun takes its lowest path across the sky and results in the fewest hours of daylight of any day all year (only 9 hours). All through winter, celebrate the slow return of the Sun and notice how the days start to get longer again.

The bi-monthly STARMAP is available on the web at <https://www.mdsci.org/learn/resources/starmaps/>

CROSBY RAMSEY MEMORIAL OBSERVATORY INFO

Safe solar viewing is offered Saturdays from 1:00pm-4:00pm, weather permitting (admission included with Science Center admission).



MERCURY

When:
Evening sky,
November 20- December 15

Where:
Southwest,
November 20- December 15

Constellation:
Libra, Scorpius, Ophiuchus,
Sagittarius, Ophiuchus



VENUS

When:
Morning sky

Where:
East to Southeast
Constellation:
Leo, Virgo, Libra



MARS

When:
Not visible
Where:
Not visible

Constellation:
Not visible



JUPITER

When:
All night, November
Dusk to pre-dawn,
December

Where:
East to West
Constellation:
Aries



SATURN

When:
Dusk to late night, November
Early evening, December

Where:
South to Southwest,
Constellation:
Aquarius