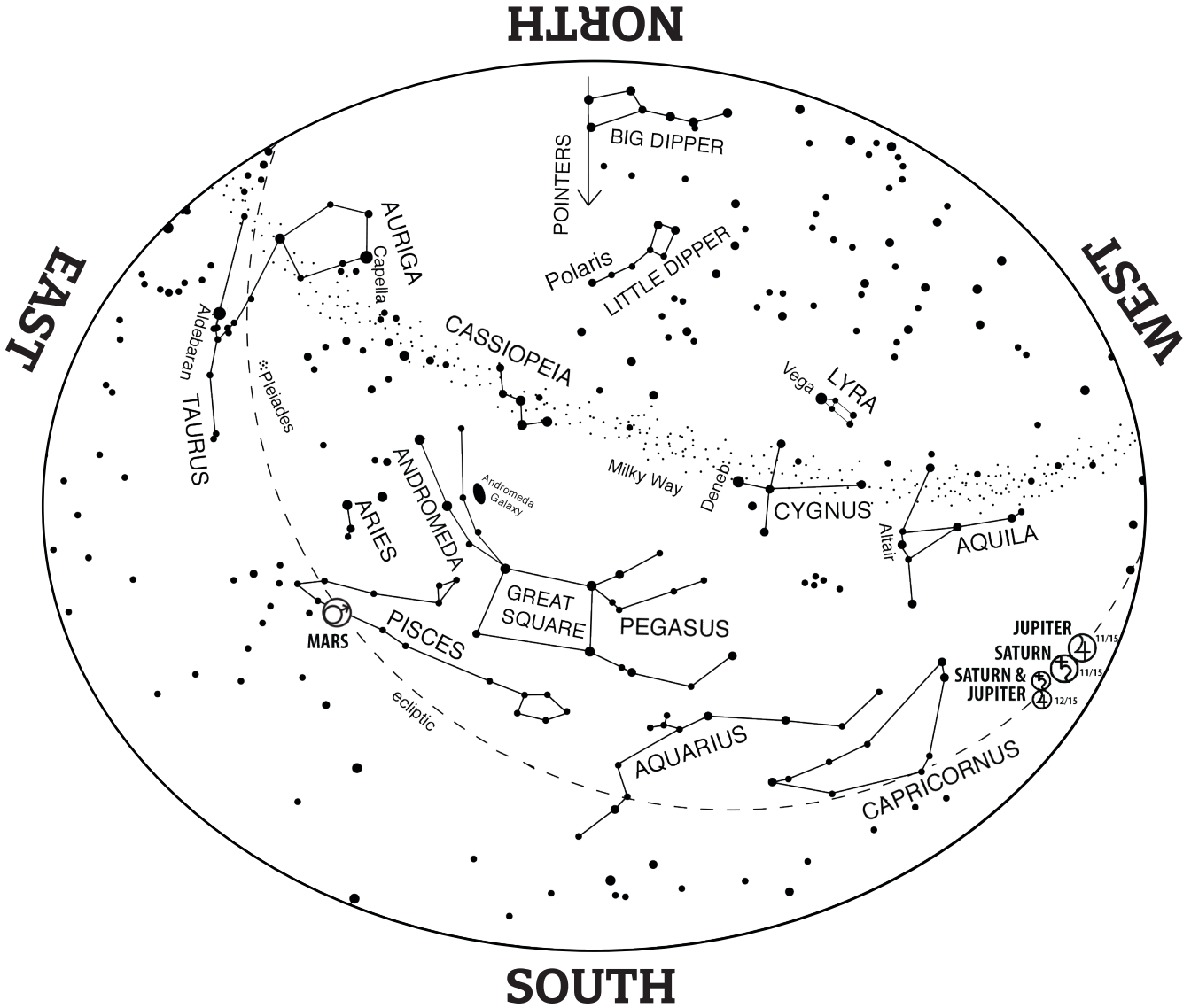


Starmap

NOVEMBER/DECEMBER 2020



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:
7:30p.m. Mid-Nov. EST
5:30p.m. 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 2020

IN THE NOVEMBER/DECEMBER SKY

- | | |
|--|--|
| <p>Nov 1
Eastern Standard Time returns
(See <i>Celestial Highlights</i>)</p> <p>Nov 2
Moon near Aldebaran</p> <p>☾ Nov 8
Last Quarter Moon</p> <p>Nov 9
Moon near Regulus (morning)</p> <p>Nov 10
Mercury greatest morning elongation
(See <i>Celestial Highlights</i>)</p> <p>Nov 12
Moon near Venus (morning)</p> <p>Nov 13
Moon near Mercury (morning)</p> <p>● Nov 15
New Moon</p> <p>Nov 16
Venus near Spica (morning)</p> <p>Nov 18
Moon near Jupiter and Saturn</p> <p>Nov 19
Moon near Jupiter and Saturn</p> <p>☾ Nov 21
First Quarter Moon</p> <p>Nov 25
Moon near Mars</p> <p>Nov 29
Moon near Aldebaran</p> <p>○ Nov 30
Full Moon</p> | <p>Dec 6
Moon near Regulus (morning)</p> <p>☾ Dec 7
Last Quarter Moon</p> <p>Dec 12
Moon near Venus (morning)</p> <p>Dec 13
Geminid Meteor Shower</p> <p>● Dec 14
New Moon</p> <p>Dec 16
Moon near Jupiter and Saturn
(See <i>Celestial Highlights</i>)</p> <p>Dec 19
Mercury in conjunction with Sun</p> <p>☾ Dec 21
First Quarter Moon
Jupiter near Saturn
Winter Solstice
(See <i>Celestial Highlights</i>)</p> <p>Dec 23
Venus near Antares (morning)</p> <p>Dec 23
Moon near Mars</p> <p>Dec 27
Moon near Aldebaran</p> <p>○ Dec 29
Full Moon</p> |
|--|--|

CELESTIAL HIGHLIGHTS

Eastern Standard Time returns, November 1, 2:00 - Set your clock back one hour on Saturday night, October 31.

Jupiter and Saturn Pairing - Jupiter and Saturn are fairly close together in the evening sky and they are getting closer. Jupiter is brighter.

- November 1 they are 5 degrees apart. (Or three finger widths apart, see Fig. 1.)
- November 18 and 19, they will be 3-1/2 degrees apart and the Moon will be near Jupiter and Saturn.
- December 1, they will be 2 degrees apart and still getting closer!
- December 16 they will be about 1 Moon diameter apart and still getting closer! (See Fig. 2.)
- Finally, on Monday, December 21, Jupiter and Saturn will be 0.1 degrees apart!
- Note that by December 31, Jupiter and Saturn are still only about 1 degree apart.

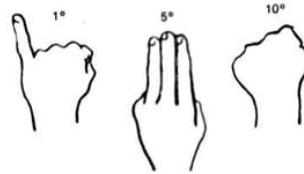


Fig 1: Hand measurements at arm's length



SW
Fig 2: SW Horizon on December 16 at 6:20pm Eastern - Saturn on top Jupiter below with crescent Moon

Planet and Moon Pairings - The Moon is near Jupiter and Saturn on November 18 and 19 and again on December 16. The Moon is near Mars on November 25 and again on December 23. Before sunrise, the crescent Moon is above Venus on November 12 and between Venus and Mercury on November 13. The crescent Moon is above Venus on December 12 before sunrise.

Mercury viewing - Mercury is the closest planet to the Sun and sometimes is hard to see due to the Sun's brightness. See Mercury at its farthest from the Sun, from Earth's perspective, at its greatest morning elongation on November 10. Look for Mercury low on the horizon, Venus is the brighter dot above it with the crescent Moon above that. By November 13, the Moon will be in between Mercury and Venus.

Winter Solstice, Saturday, 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 410-545-2999

For the health and safety of our guests, the Observatory is temporarily closed.



MERCURY

When:
Before sunrise, November
Not visible, December

Where:
Low in East-southeast

Constellation:
Virgo, Libra



VENUS

When:
Morning sky

Where:
East-southeast

Constellation:
Virgo, Libra, Scorpius, Ophiuchus



MARS

When:
Evening to early Morning

Where:
Southeast to West, November
South to West, December

Constellation:
Pisces



JUPITER

When:
Evening sky

Where:
Southwest

Constellation:
Sagittarius, Capricornus



SATURN

When:
Evening sky

Where:
Southwest

Constellation:
Sagittarius, Capricornus