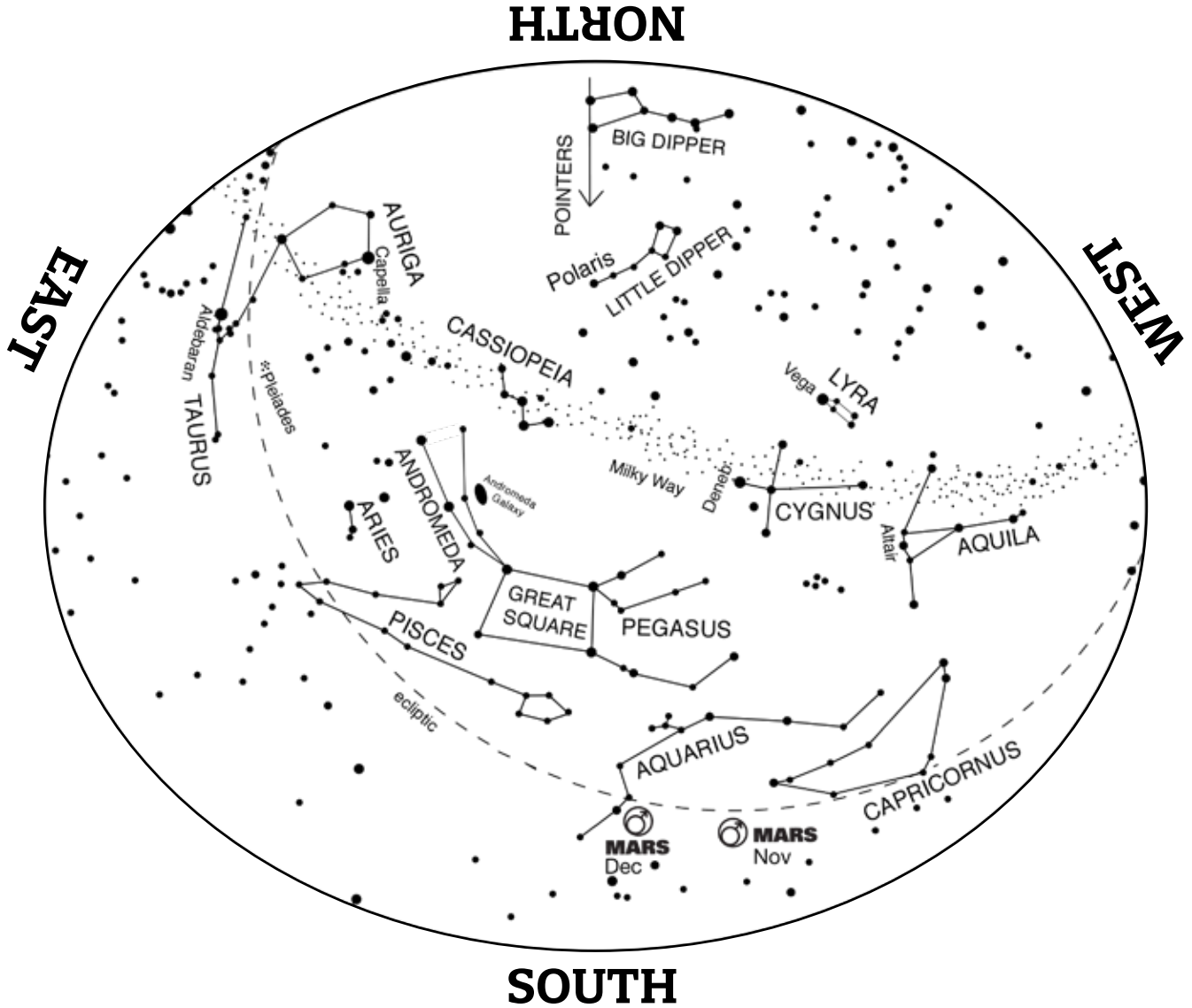


Starmap

NOVEMBER/DECEMBER 2018



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 2018

IN THE NOVEMBER/DECEMBER SKY

- Nov 4**
Eastern Standard Time returns
(See *Celestial Highlights*)
- Nov 6**
Mercury greatest evening elongation
- **Nov 7**
New Moon
- Nov 8**
Mercury near Antares
Moon near Jupiter
- Nov 11**
Moon near Saturn
(See *Celestial Highlights*)
- Nov 13**
Lionid Meteor Shower
(See *Celestial Highlights*)
- ◐ **Nov 15**
First Quarter Moon near Mars
(See *Celestial Highlights*)
- **Nov 23**
Full Moon near Aldebaran
- Nov 26**
Jupiter in conjunction with Sun
Mars InSight lander lands on Mars
(See *Mission Highlight*)
- Nov 27**
Mercury in conjunction with Sun
(See *Celestial Highlights*)
- ◑ **Nov 29**
Last Quarter Moon
Moon near Regulus
- Dec 3**
Moon near Venus (morning)
- **Dec 7**
New Moon
- Dec 8**
Moon near Saturn
- Dec 13**
Geminid Meteor Shower
(See *Celestial Highlights*)
- ◐ **Dec 14**
Moon near Mars
- ◑ **Dec 15**
First Quarter Moon
Mercury greatest morning elongation
- Dec 20**
Moon near Aldebaran
- Dec 21**
Winter Solstice
(See *Celestial Highlights*)
Mercury near Jupiter (morning)
(See *Celestial Highlights*)
- **Dec 22**
Full Moon
Mercury and Jupiter near Antares (morning)
- Dec 26**
Moon near Regulus
- ◑ **Dec 29**
Last Quarter Moon

 = Observatory events

CELESTIAL HIGHLIGHTS

Eastern Standard Time returns, November 4 - Clocks are set back one hour on Saturday night, November 3.

Planet and Moon Pairings - The Moon pairs up with Jupiter on November 8, Saturn on November 11 and December 9, and Mars on November 15 and December 14. Each of these planet and moon pairings are visible just after sunset and for Saturn and Jupiter you will need a clear view of the horizon.

Meteor Shower Madness - Bundle up and head out to a dark location after midnight for either of these two meteor showers. The Leonids peak on Nov 17 - look to the east near the stars of Leo the Lion. The Geminids peak on Dec 14, look toward the south near the stars of Gemini the Twins.

Winter Solstice, Dec 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.

MISSION HIGHLIGHT

Mars InSight lands, November 26 - Mars InSight Lander (launched in May 2018) will plunge through the Martian atmosphere for the entry, decent and landing phases of the mission, which lasts about six minutes and delivers the lander safely to the surface of the Red Planet. For more information visit: <https://www.nasa.gov/insight>

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

Free public observing nights are held Friday evenings, weather permitting. Observatory hours on Nov. 2 are 7-10:30pm EDT. Starting Nov. 9, Observatory hours are 5:30-9pm EST. Please call Friday after 5:00pm for observing conditions.



MERCURY

When:
After sunset, early November
Before sunrise, December
Where:
Low in west, November
Low in east, Decemeber
Constellation:
Scorpius, Ophiuchus, Sagittarius, Libra, Scorpius, Ophiuchus



VENUS

When:
Before sunrise, late November
Before sunrise, December
Where:
Low in east to southeast
Constellation:
Virgo, Libra



MARS

When:
Evening sky
Where:
South to southwest
Constellation:
Capricornus, Aquarius



JUPITER

When:
Not visible, Novemeber
Before sunrise, late December
Where:
Low in southeast
Constellation:
Libra, Scorpius, Ophiuchus



SATURN

When:
After sunset, November
Not visible, December
Where:
Low in southwest
Constellation:
Sagittarius