DAVIS PLANETARIUM

Starmap

SEPTEMBER/OCTOBER 2019

MARYLAND SCIENCE CENTER
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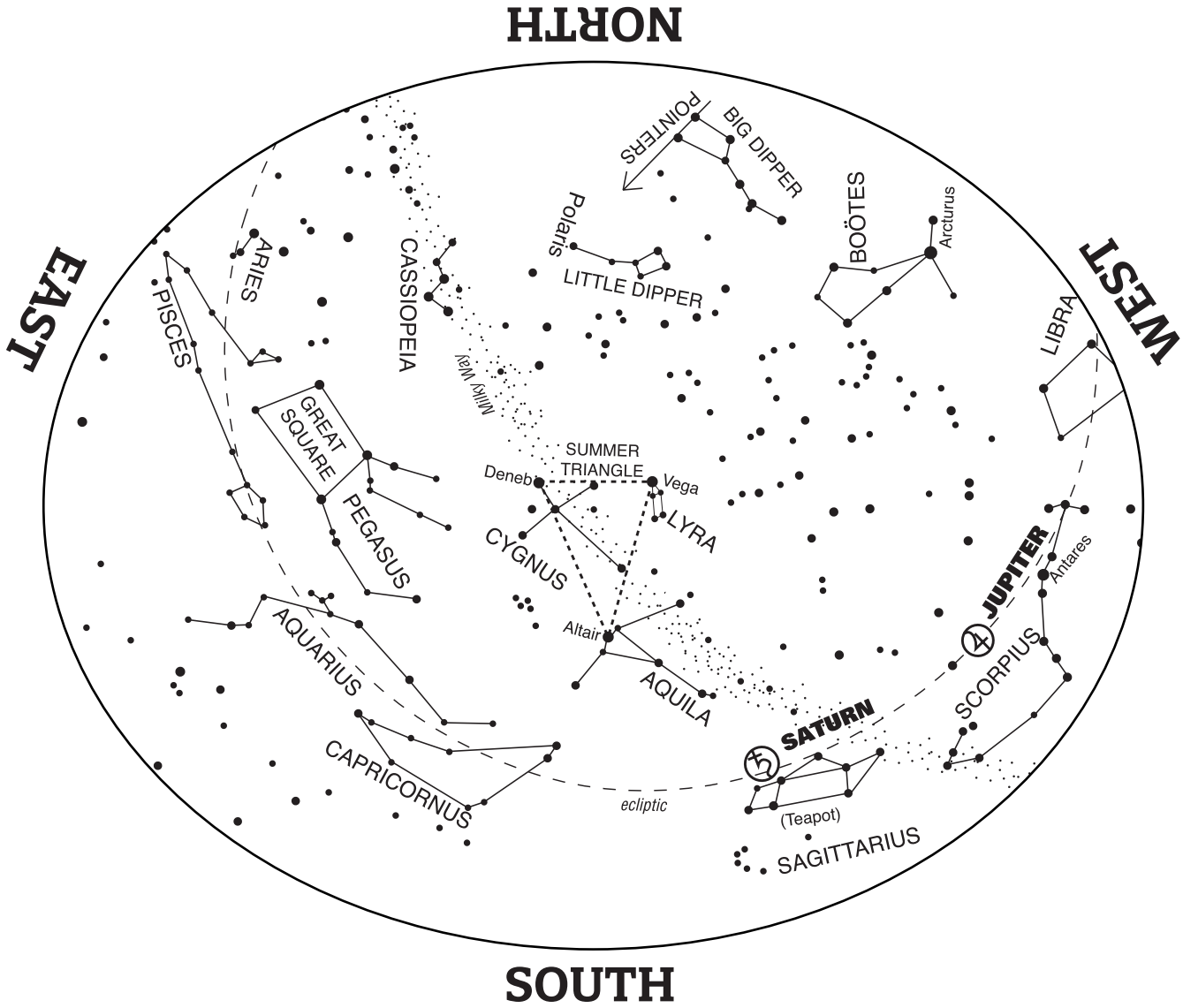

TO USE MAP:
Hold the map in front of you so that the direction you are facing is on the bottom. The stars on the lower half on the map will match up with the stars in the sky. The center of the map is directly overhead in the sky. Constellation and star pattern names are all capitalized. Names of stars have only the first letter capitalized. The map is valid within an hour of:
9:30pm Mid-September EDT
7:30pm Mid-October EDT

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.

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IN THE SEPTEMBER/OCTOBER SKY

Sept 2
Mars in conjunction with Sun (See ***Celestial Highlight***)

Sept 3
Mercury in conjunction with Sun (See ***Celestial Highlight***)

Sept 5
First Quarter Moon near Jupiter

Sept 7/8
Moon near Saturn

Sept 10
Neptune Opposition (See ***Celestial Highlight***)

Sept 14
Full Moon

Sept 20
Moon near Aldebaran (morning)

Sept 21
Last Quarter Moon

Sept 23
Autumnal equinox (See ***Celestial Highlights***)

Sept 28
New Moon

Oct 3
Moon near Jupiter

Oct 4
Observe the Moon Night (See ***Celestial Highlight***)

Oct 5
First Quarter Moon near Saturn

Oct 13
Full Moon

Oct 19
Mercury at greatest elongation

Oct 21
Last Quater Moon

Oct 27
New Moon

Oct 28
Uranus Opposition (See ***Celestial Highlight***)

Oct 29
Moon near Venus and Mercury (See ***Celestial Highlight***)

Oct 30
Mercury near Venus

Oct 31
Moon near Jupiter

= Observatory events

CELESTIAL HIGHLIGHTS

Planet Oppositions and Conjunctions with Sun – The astronomical term *opposition* describes when an object appears opposite the Sun in the sky as seen from Earth. Planets at opposition are visible all night. Neptune is at opposition on September 10. Uranus is at opposition on October 28.

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 September 2. Mercury is in conjunction with the Sun on September 3.

Planet and Moon groupings - Besides being in conjunction with the Sun, planets are also seen partnered with the Moon or another planet in the sky. Jupiter partners with the Moon on September 5, October 3 and 31. Saturn has its lunar visits on September 7 and October 5. Mars gets a visit from the Moon on October 26 in the morning before sunrise. The Crescent Moon, Mercury and Venus can be viewed in a tight grouping in the southwest just after sunset on October 29. Venus will be the brighter of the two planets, and in the south Jupiter and Saturn are also be visible, Jupiter as the second brighter dot in the sky.

Autumnal Equinox, Monday, September 23, 3:49 am EDT – The Vernal Equinox marks the first day of spring. The Equinoxes are the only two days each year when the sun rises due east and sets due west every place on Earth! If you happen to be standing at the Earth's equator at noon during the Equinox you would see the sun pass directly overhead.

International Observe the Moon Night, Friday, October 4, 7pm-10:30pm - While the official "International Observe the Moon Night" is on October 5, we are celebrating a day early, during the Observatory's regularly scheduled Friday observing.

Mercury Transit, November 11, Save the Date! – Interior planets Mercury and Venus have two different types of conjunctions. Superior conjunction is when the planet is on the far side of the Sun and inferior conjunction when the planet is between the Earth and Sun. Conjunctions with the Sun as mentioned above are typically not visible because the Sun is too bright. On November 11, Mercury becomes visible during a transit when it goes directly between Earth and the Sun. It will be seen going across the face of the Sun. Remember to never look directly at the Sun! To see the transit safely, come to view it through our specially filtered telescopes.

The bi-monthly STARMAP is available on the web at http://www.mdsci.org/pdf/Planetarium/STARMAP.pdf

CROSBY RAMSEY MEMORIAL OBSERVATORY INFO 410-545-2999

Free public observing nights are held Fridays 7-10:30pm. Please call after 5pm on Friday for observing conditions.

MERCURY

When:
Not visible, September
After sunset, October
Where:
Very low in West-southwest, October
Constellation:
Virgo, Libra

VENUS

When:
After sunset, after mid-September
Where:
Very low in West-southwest
Constellation:
Leo, Virgo, Libra

MARS

When:
Not visible, September
Morning sky, late October
Where:
Very low in East, late October
Constellation:
Virgo, October

JUPITER

When:
Evening sky
Where:
Southwest
Constellation:
Ophiuchus

SATURN

When:
Evening sky
Where:
South to Southwest
Constellation:
Sagittarius