

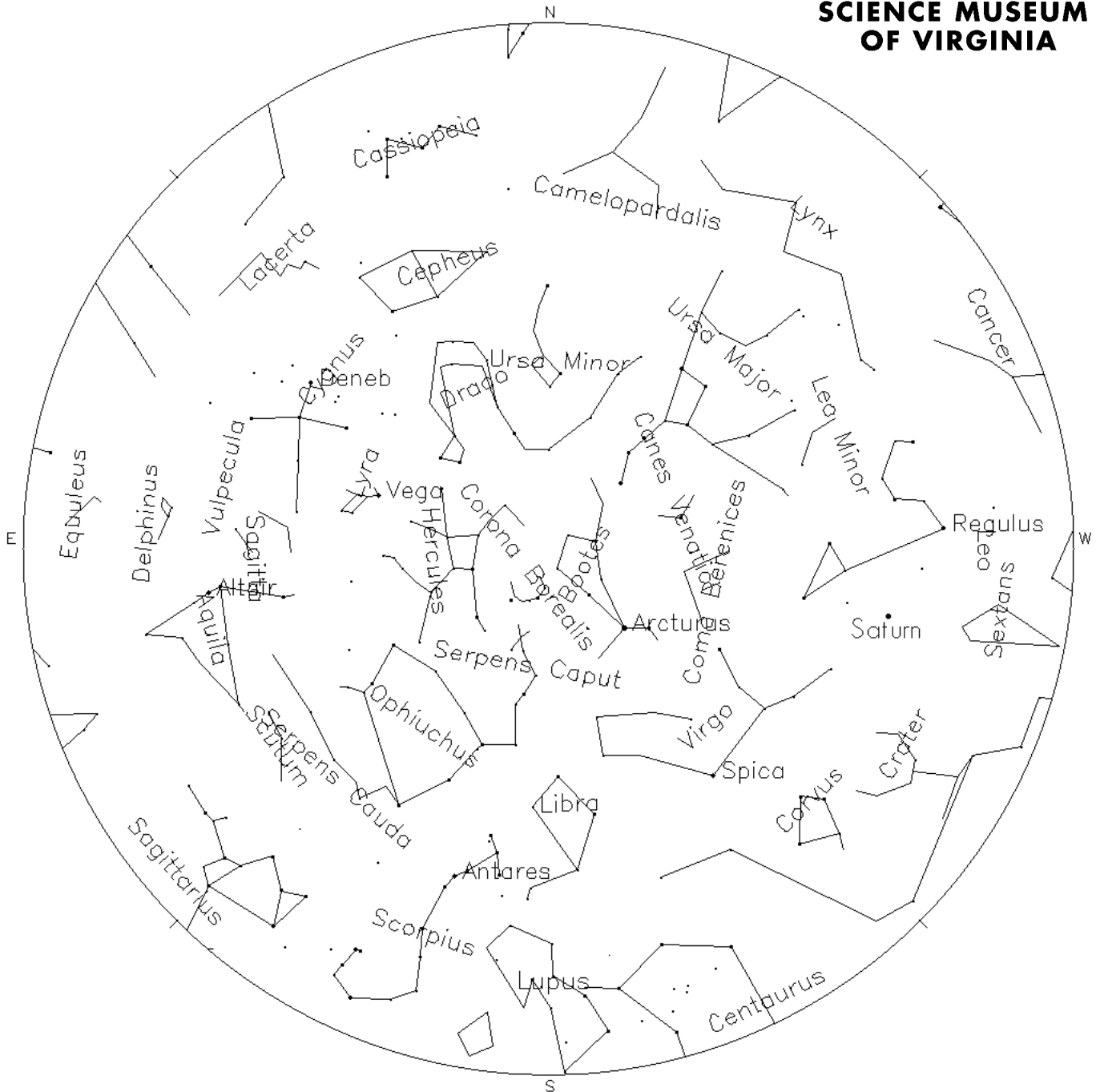
STAR CHART JULY 2009

This chart shows the whole sky as seen from the Virginia area around 9 p.m. Eastern Daylight Time.

The outer circle represents the ideal horizon. The center of the chart is the zenith, the point in the sky directly overhead. The bigger the dot the brighter the star it represents.

The best way to use the chart is to choose a direction and face that direction. Then hold the chart so that the label for the direction you are facing is closest to the horizon. If the moon or city lights are very bright, you may not be able to see all the stars shown on the chart.

This chart was prepared by the Science Museum of Virginia.



SKY HAPPENINGS JULY 2009

PLANETS THIS MONTH:

Mercury is not visible this month.

Venus rises in the northeast after 3 a.m. and is the brightest star-like object in the east before sunrise.

Mars rises in the northeast before 3 a.m. Mars is not as bright as Venus, but shines with a red-orange color. Mars is near the bright star Aldebaran, which is also red. Mars is higher in the sky than Aldebaran, and the planet will not twinkle like the star.

Jupiter rises in the southeast at about 10:30 p.m., moves across the southern sky throughout the night, and stands about 30 degrees above the southwest horizon before sunrise. Jupiter is the brightest star-like object in the southern part of the sky.

Saturn looks like a pale yellow-white star and stands about 20 degrees above the west horizon at sunset. Saturn sets in the west before 11 p.m.

CELESTIAL EVENTS:

July 3: Earth at aphelion — its farthest point from the sun this year — at a distance of 94,505,103 miles (152,091,221 km).

July 7: Penumbral lunar eclipse visible in western North America, western South America and the Pacific Ocean. The moon will pass through the outer edge of the Earth's penumbra, or partial shadow.

July 7: Smallest apparent full moon of 2009. This is because the moon is at apogee — its farthest point from Earth — at a distance of 252,420 miles (406,232 km).

July 10: Mars 5 degrees south of the Pleiades star cluster in the morning sky.

July 10: Jupiter 4 degrees south of the waning gibbous moon in the evening sky.

July 14: Venus 3 degrees north of the bright star Aldebaran.

July 14: Mercury at superior conjunction, on the far side of the sun as seen from Earth.

July 18: Waning crescent moon, Venus, Mars and the Pleiades star cluster grouped together in the early morning sky.

July 21: Moon at perigee — its closest point to the Earth — this month, at a distance of 222,117 miles (357,463 km). Since perigee coincides with the new moon, coastal areas will experience greater than normal tides.

July 21: Total solar eclipse visible in southeast Europe, the Middle East, India, Asia and the eastern Pacific Ocean.

July 28–29: South delta aquarid meteor shower produces up to 20 meteors per hour. Watch the shower from a dark location, away from city lights. Bright moonlight will interfere with your ability to see the faint meteors, so the best time to observe is after the moon sets at about 11:30 p.m.

MOON PHASES:

Full Moon: July 7

Last Quarter: July 15

New Moon: July 21

First Quarter: July 28



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