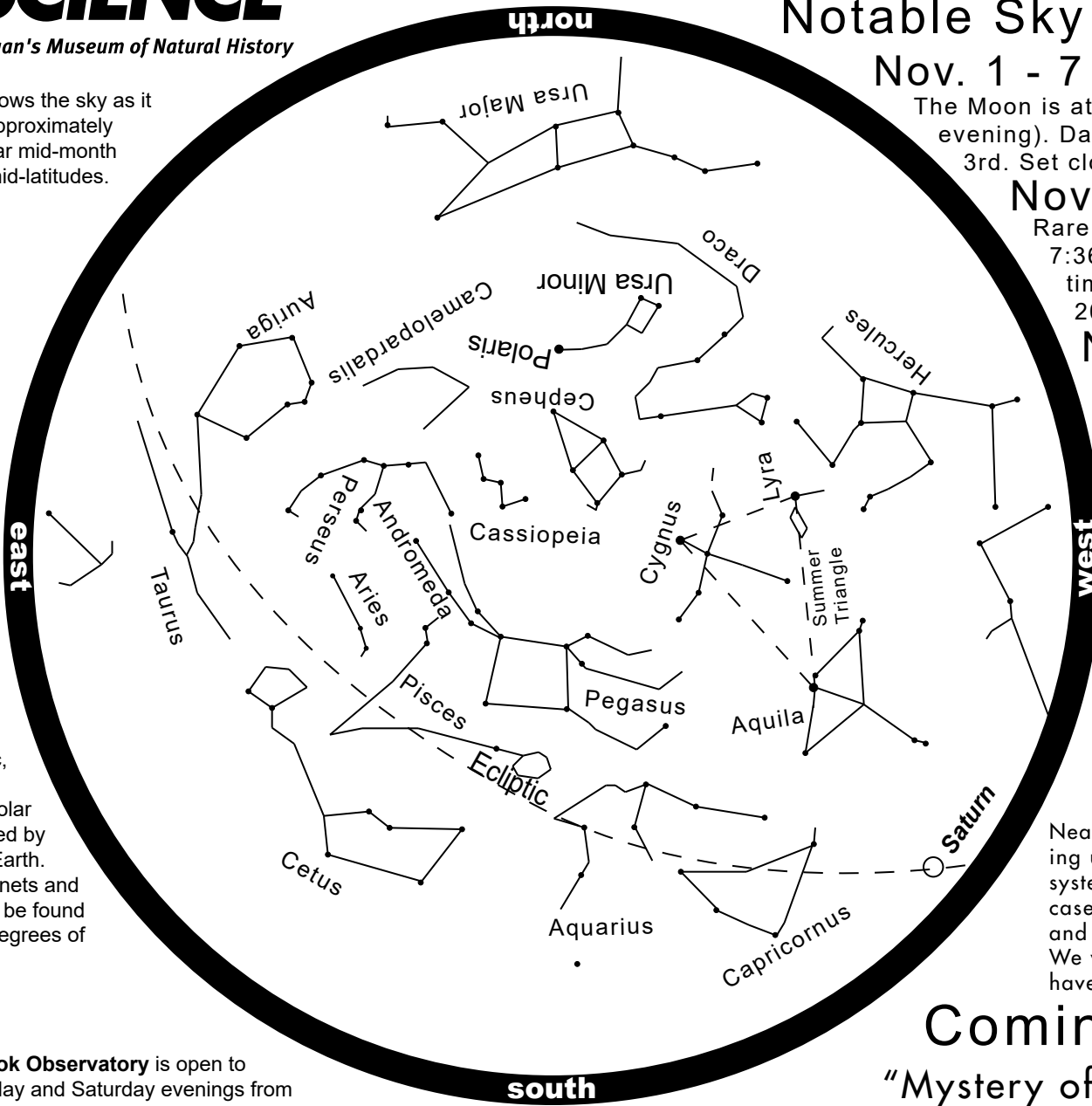




This chart shows the sky as it appears at approximately 8pm EST near mid-month at northern mid-latitudes.



What is that dashed line? It's the ecliptic, the reference plane of the solar system, defined by the Sun and Earth. The major planets and the Moon can be found within a few degrees of this plane.

The Cranbrook Observatory is open to the public Friday and Saturday evenings from 7:30 - 10:00pm EST, and the first Sunday of the month from 1:00 - 4:00pm for solar viewing. Come have a look through our 6" telescope! For observatory information visit <http://science.cranbrook.edu/explore/observatory>

### Nov. 1 - 7

The Moon is at the lower right of Saturn on the 1st (SSW evening). Daylight Saving Time ends at 2:00am on the 3rd. Set clocks back one hour at bedtime on the 2nd.

### Nov. 8 - 14

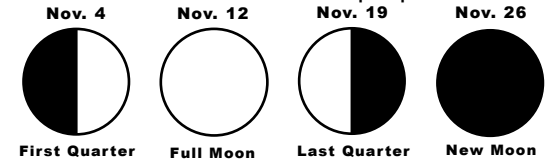
Rare transit of Mercury on the 11th. Begins at 7:36am, midpoint 10:20am, ends 1:04pm (all times are EST). The next transit will be in 2039. *Never look directly at the Sun!*

### Nov. 15 - 21

The Leonid meteor shower peaks on Nov. 17-18. Expect an average of 40 per hour.

### Nov. 22 - 30

Conjunction of Venus and Jupiter on the 24th. They'll be within 1.4 degrees of each other in evening twilight near the SW horizon. Binoculars will help spot them.



## Now Showing

### "Robot Explorers"

Near the end of the twentieth century, we began launching unmanned probes into the far reaches of the solar system. What they discovered was amazing and in some cases unexpected. New space missions are underway, and many of these robust spacecraft are still operational. We will pay tribute to these robots and learn what they have taught us about our solar system.

## Coming Nov. 27

### "Mystery of the Christmas Star"

Travel back in time 2,000 years to explore the nature of the "Star" that guided the wise men to Bethlehem. We will examine astronomical events that were occurring at the time and see if any were remarkable enough to have sparked the journey. (Extra shows for the holidays; please visit our Web page for the complete schedule.)

For astronomy information visit <http://science.cranbrook.edu>