October (Space) Oddities - 2022

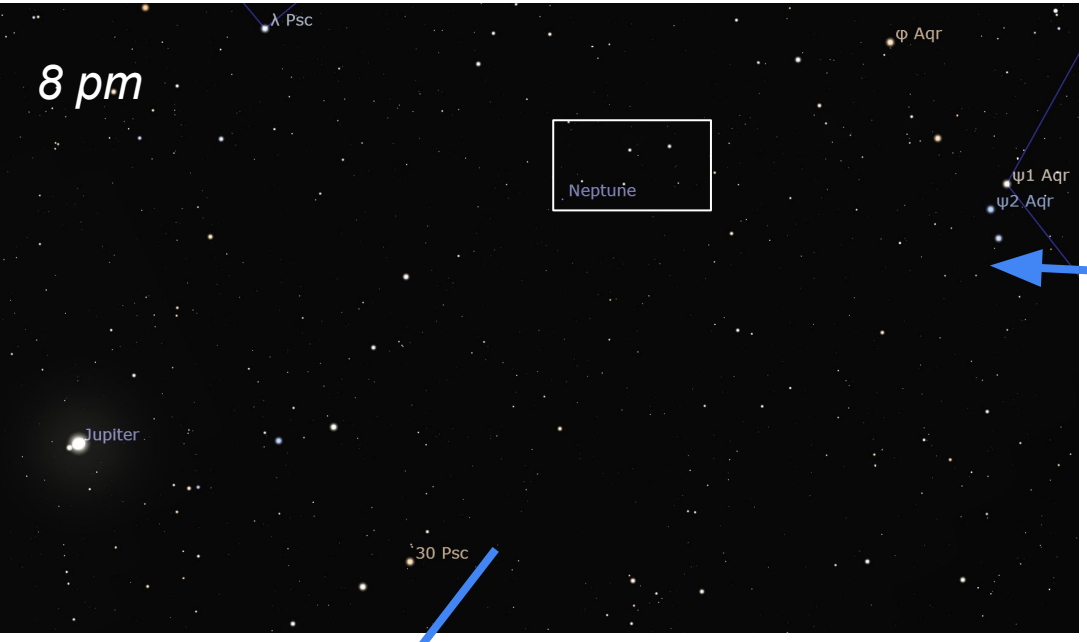
- Moon Shots: First qtr - 2nd; Full Moon - 9th; Last qtr - 17th; New moon - 25th
  - Full Moon - Harvest Moon
  - Occultation with Uranus - 11th, Mercury - 24th

- Planetary views:
  - Major attractions - Mars, Jupiter, Saturn
  - Venus not visible (superior conjunction - 22nd

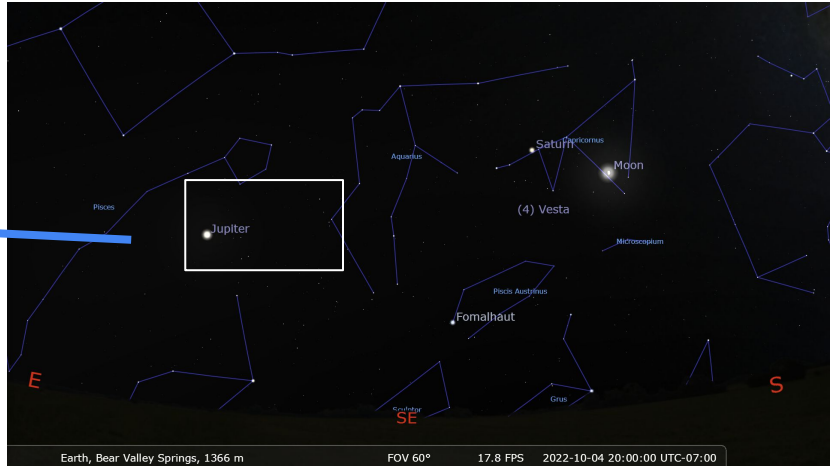
- Orionid meteor shower:
  - Peak night - 21st

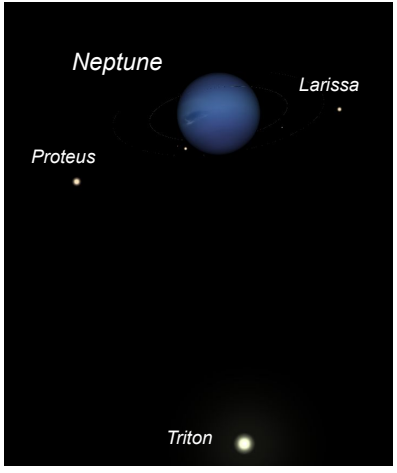
- Constellations:
  - featured DSOs in Pegasus & Aquarius

Planet Views - outer planets, October 4th



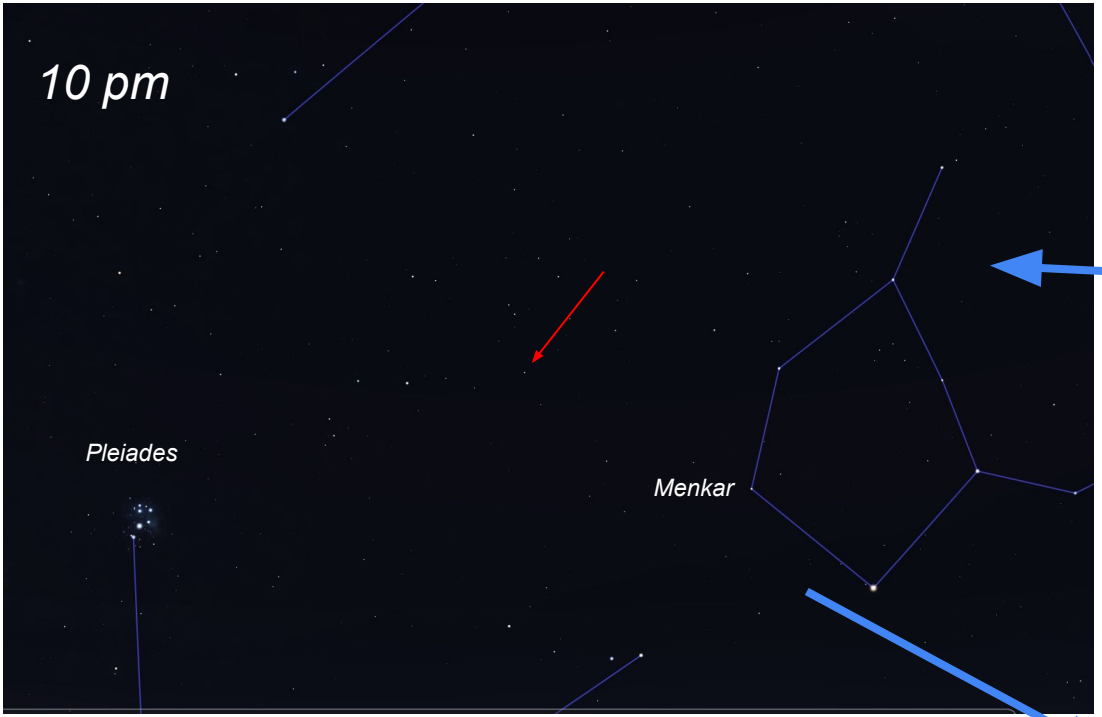
Neptune visible with binoculars all month

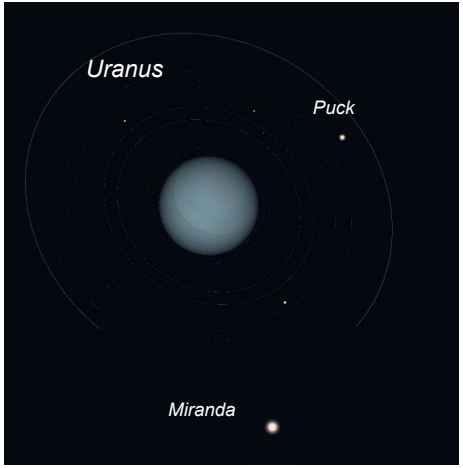




Planet Views - outer planets, October 4th

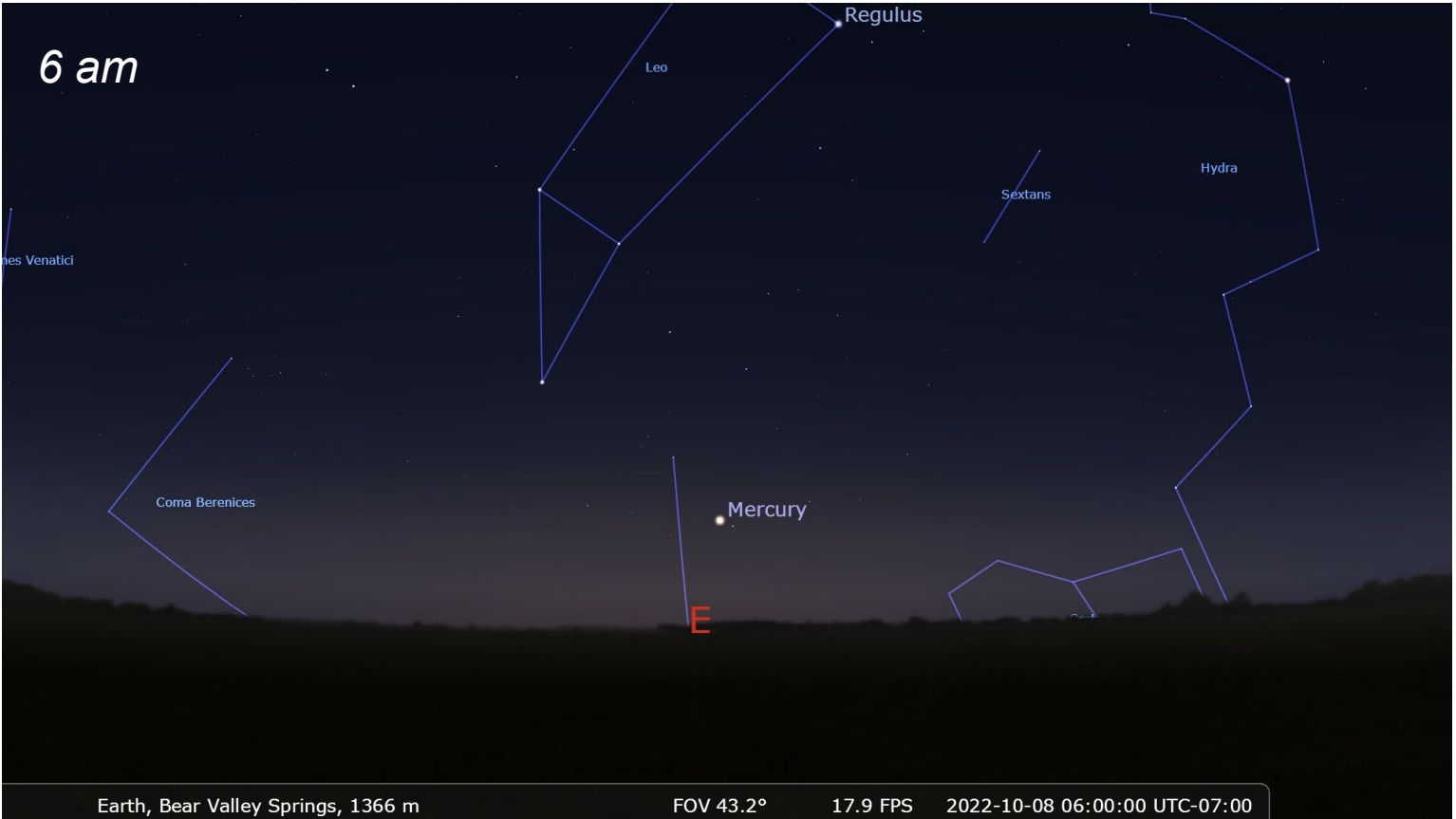
Uranus visible with binoculars all month





Planet Views - Mercury, October 8

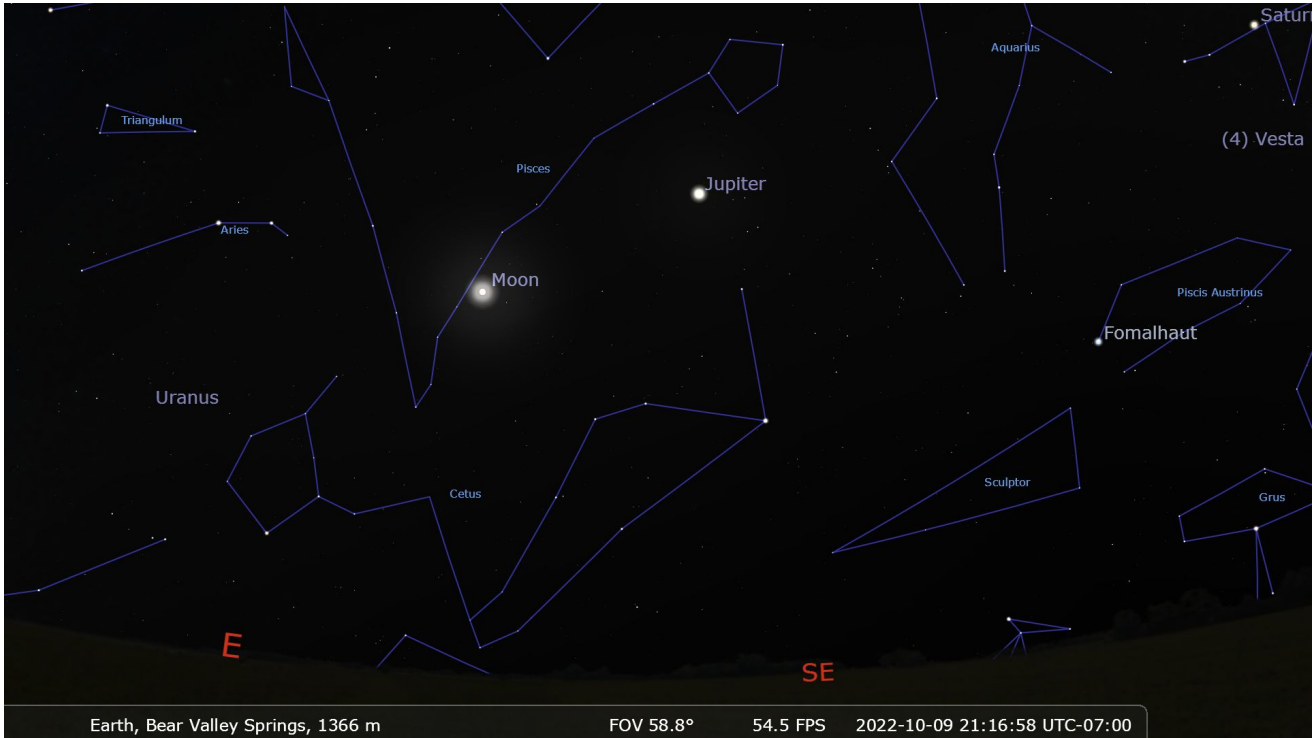
Greatest elongation from the sun



Moon Shots - October 9, Hunter's Moon

Adjacent to Pisces

East of Jupiter, last month full moon west of Jupiter



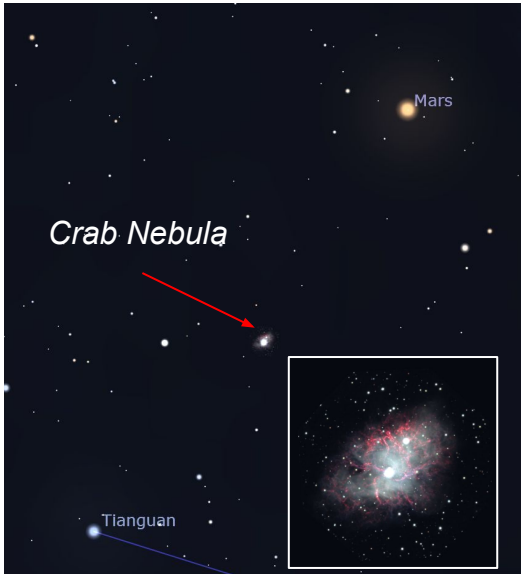
Planet Views - Uranus, October 11

Occultation by the Moon

challenging event due to Moon's brightness; approaching next month's opposition

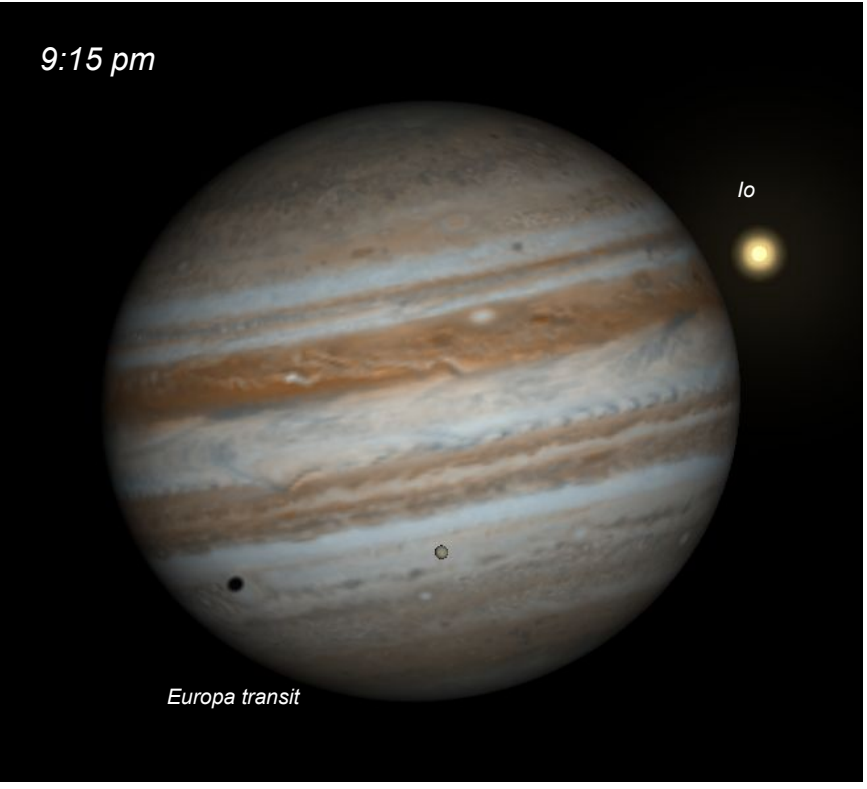
Planet Views - Mars, October 14

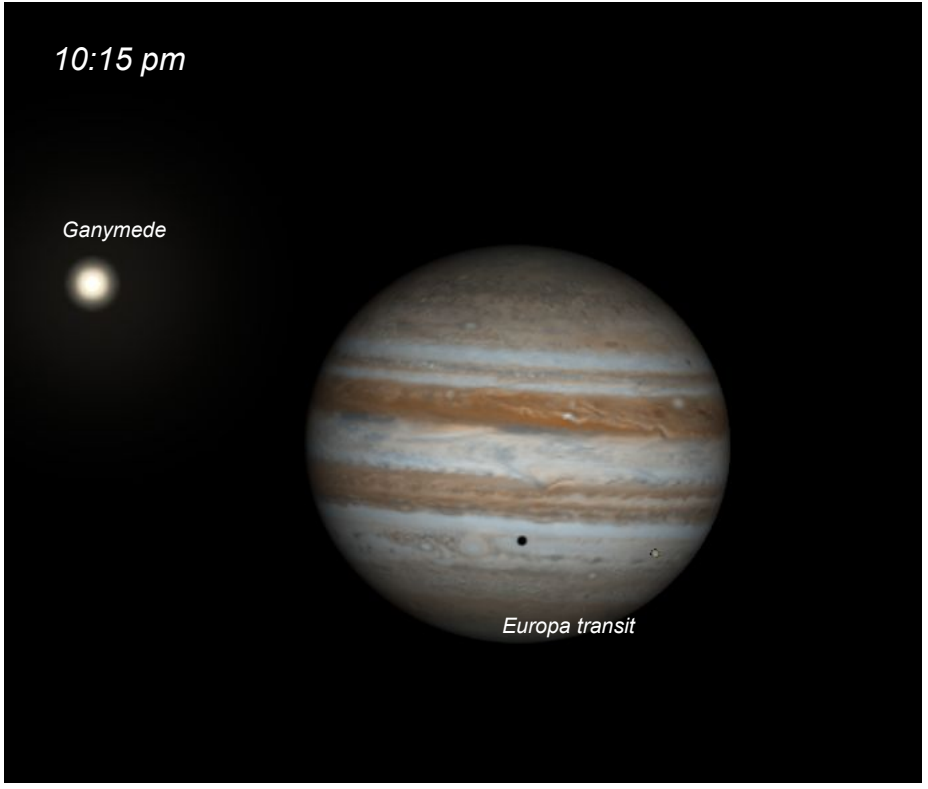
Two months from opposition; magnitude/apparent diameter/phase grows through the month; good telescope opportunities



Planet Views - Jupiter & its moons, October 15

Multiple transits/occultations throughout the month





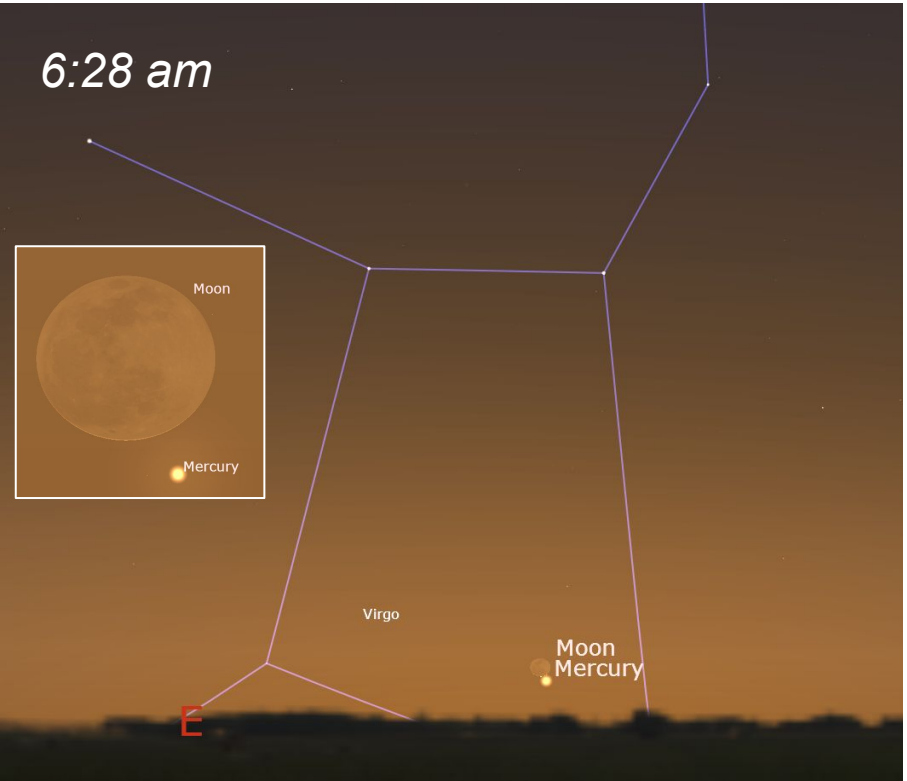
Meteor Watch - Orionid Meteor Shower, peak October 21

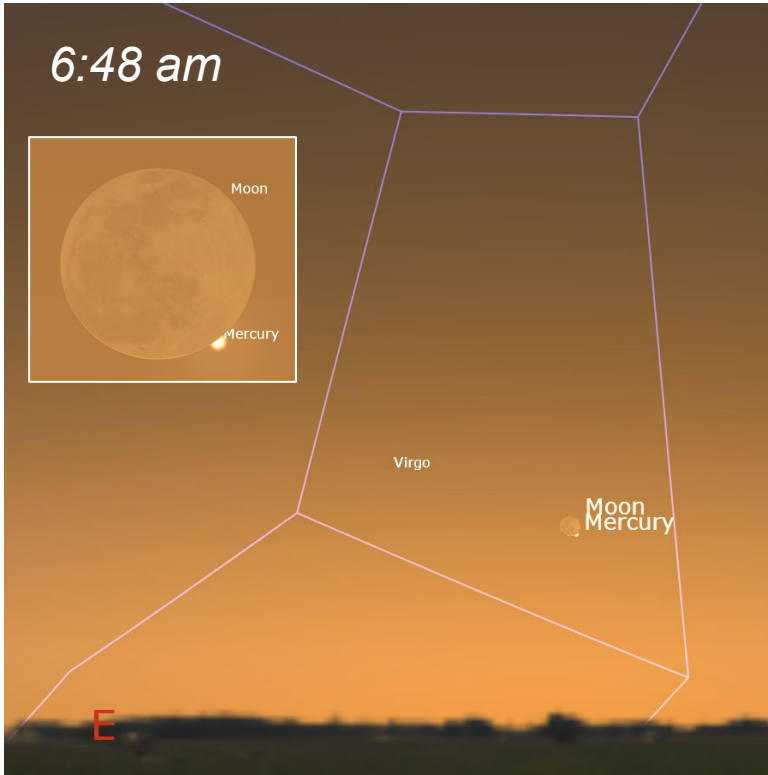
Active 10/2 - 11/7; maximum rate - 20 meteors/hour; moon at peak - waning crescent; derived from 1P/Halley comet passing thru inner solar system

Planet Views - Mercury, October 24

Occultation by the New Moon

challenging event due to 10 deg proximity to the Sun - significant precautions must be undertaken before any attempts to view the occultation; sunrise around 7:12 am





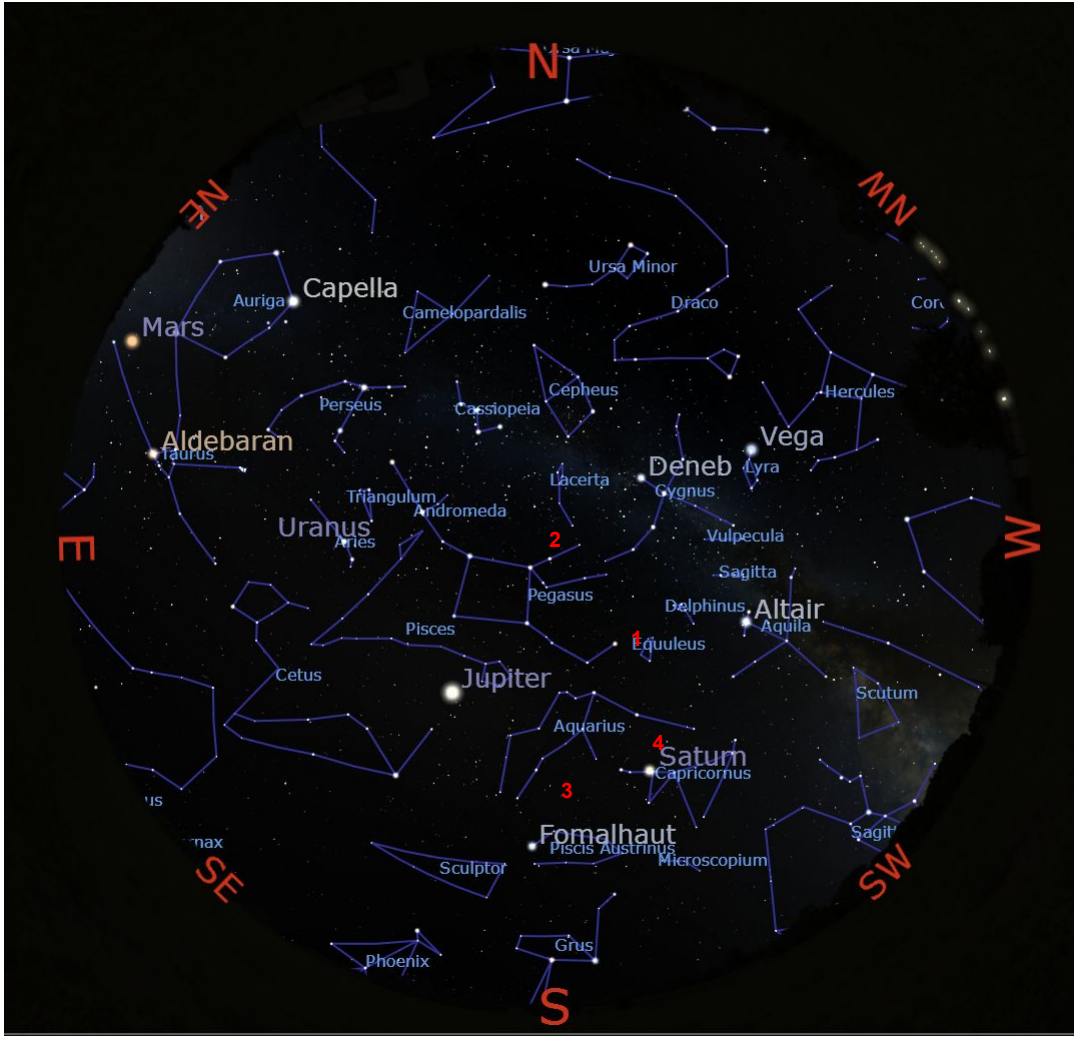
October constellations

Oct 15 - 10 pm

Aquarius, Grus, Lacerta, Pegasus, Piscis Austrinus

October Deep Sky Objects

1 - M15 (Great Pegasus Cluster)
2 - NGC 7317 (Stephan's Quintet)
3 - NGC 7293 (Helix Nebula)
4 - NGC 7009 (Saturn Nebula)



Source: constellation-guide.com

M15 “Great Pegasus Cluster”

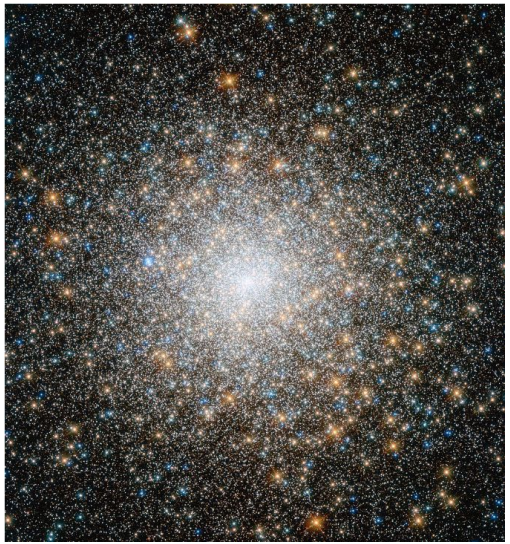


Image: NASA, ESA

35,000 light years from Earth
12 billion yrs old
visible with binoculars

NGC 7317 “Stephan’s Quintet ”

Stephan's Quintet, image: NASA\ESA\Hubble, Processing and copyrights: Roi Levi (CC BY-SA 4.0)

300 million(!) light years from Earth in Pegasus
will eventually merge with each other

NGC 7293 “Helix Nebula”

Image: La Silla observatory in Chile

only ~10,600 years old
650 light years distant

NGC 7009 “Saturn Nebula”

Image: ESO VLT

~5000 light years from Earth
moving toward us 28 miles per second

Source: constellation-guide.com