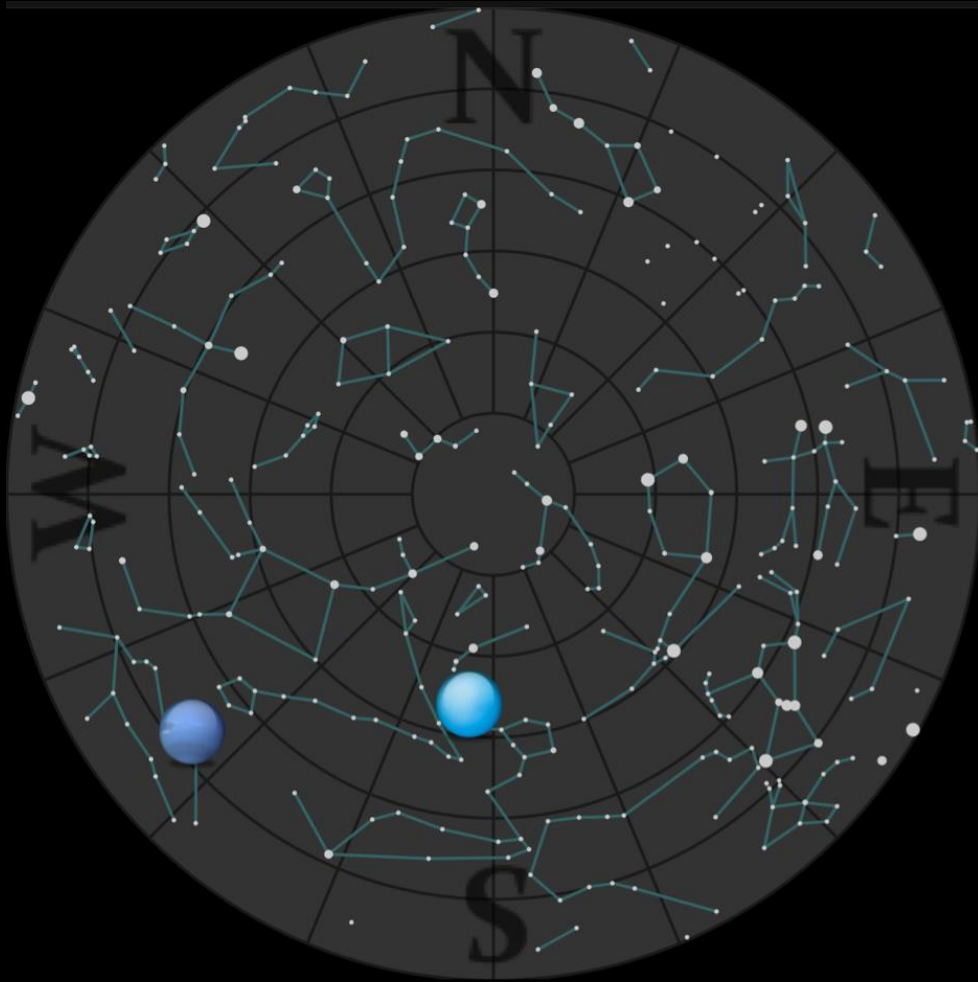


What's Up?

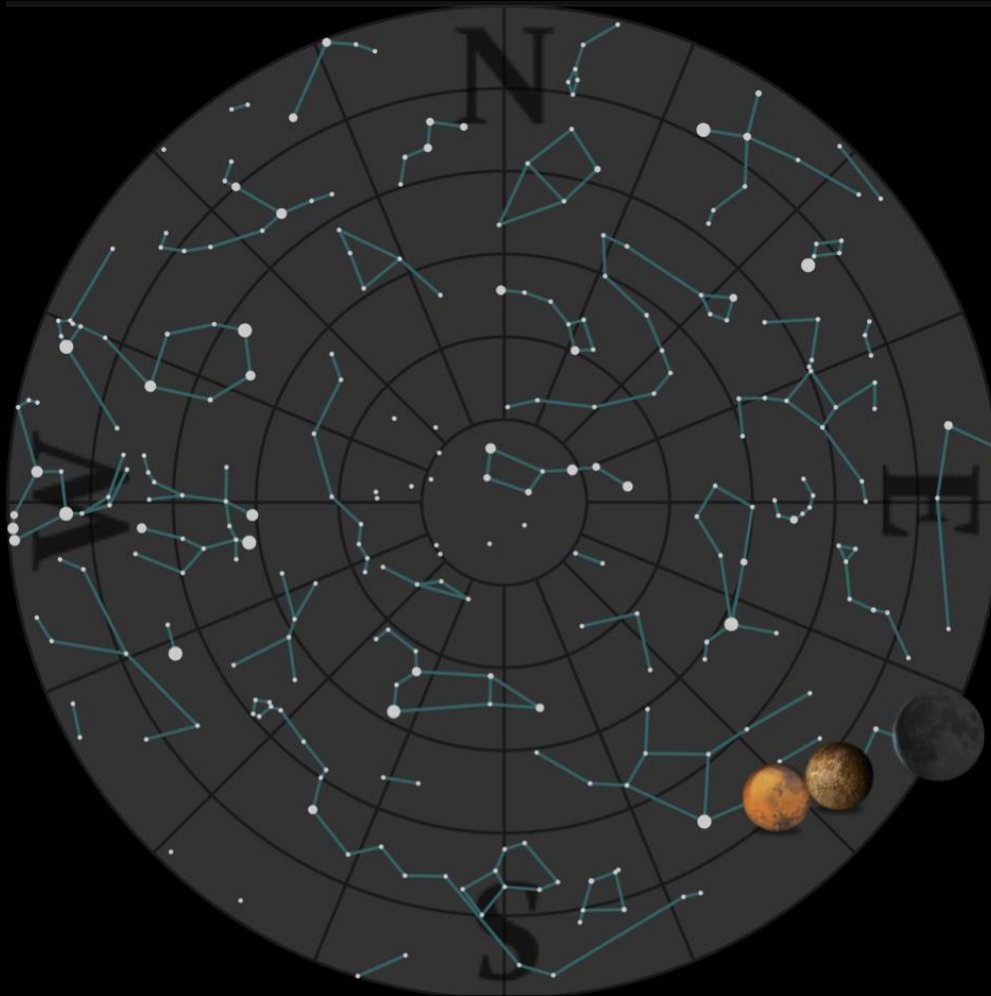
2019 November 25 to December 23

Bill Barton, FRAS

•The Sky 22:00
Tonight







•The Sky 07:00
Tomorrow



Inner Solar System

- Sun
 - Declination decreasing, Solstice December 22
 - Perihelion on January 05 (0.9832 au)
- Mercury
 - In morning sky, greatest elongation November 28 (20°)
 - Superior conjunction on January 10
 - Today, rise 05:30, transit 10:20, set 15:15
- Venus
 - In evening sky, greatest elongation March 24 2020 (46°)
 - Inferior conjunction on June 03
 - Today, rise 09:50, transit 13:30, set 17:15

Earth

- Time
 - 00:00UT \approx 04:10ST today
 - Today, sunrise 07:30, transit 11:40, sunset 15:50
 - End of period, sunrise 08:00, transit 11:50, sunset 15:40
- Moon
 -  New, 26
 -  First Quarter, 04
 -  Full, 12 (Long Night Moon)
 -  Last Quarter, 19
- Meteors
 - Geminids active this period, December 04-17, peak 14, ZHR = 100+

Occultations

- Lunar
 - November 28, Thursday
 - Jupiter, mag -1.7
 - Recovery bright limb 10:29 (daylight)
 - December 13, Friday
 - η Gem, mag 3.5
 - Disappearance bright limb 06:44
 - Recovery dark limb 07:16 (Sunrise 07:54)

Outer Solar System

- Mars
 - Opposition 2020 October 13. Today, rise 04:45, transit 09:45, set 14:45.
- Jupiter
 - Solar conjunction December 27, opposition 2020 June 10. Today, rise 09:40, transit 13:30, set 17:20.
- Saturn
 - Solar conjunction 2020 January 02, opposition July 20. Today, rise 10:55, transit 14:50, set 18:50.
- Uranus
 - Solar conjunction 2020 April 26, opposition October 31. Today, rise 14:35, transit 21:45, set 04:50.
- Neptune
 - Solar conjunction 2020 March 08, opposition September 11. Today, rise 13:15, transit 18:45, set 00:20.

Society Events

- Christmas Meal
 - Wednesday 11 December, Coach & Horses, Melton, from 8:00pm
- Field Trip
 - Friday 20 December, Grazing Occultation of ZC1840, 04:30am

Other Events

- Athenæum Astronomical Association
 - Nowton Park, Bury Rd., Nowton, IP29 5BD
 - Thursday 28 November, 07:30pm, Stellar Magnitudes
 - Thursday 12 December, 07:30pm, Comets
- Darsham And Surrounding Hamlets
 - None this period
- Lowestoft & Yarmouth Regional Astronomers
 - Parkhill Hotel, Oulton, NR32 5DQ
 - Tuesday 26 November, 07:30pm, Observing/Practical
- British Astronomical Association
 - Institute of Physics, 37 Caledonian Rd., London
 - Saturday 07 December, 02:00pm, Christmas Meeting (SOLD OUT)

2020 Lookahead

- Mars Opposition
 - Maximum apparent size 25.1 arc sec
 - 2018 July 27 (24.3 arc sec, declination $-25^{\circ} 49'$)
 - 2020 October 13 (22.6 arc sec, declination $+05^{\circ} 13'$), mag -2.6
- Jupiter-Saturn Conjunction
 - 2020 December 21
 - Jupiter $20^{\text{h}} 09^{\text{m}} 18^{\text{s}}$, $-20^{\circ} 36' 32''$
 - Saturn $20^{\text{h}} 09^{\text{m}} 34^{\text{s}}$, $-20^{\circ} 29' 29''$
 - Declination difference ≈ 7 arc min ($\frac{1}{4}$ Moon diameter)
 - 1st quarter Moon

Moon, Jupiter & Saturn Conjunction

2020 December 16 16:00

2020 December 17 16:00

