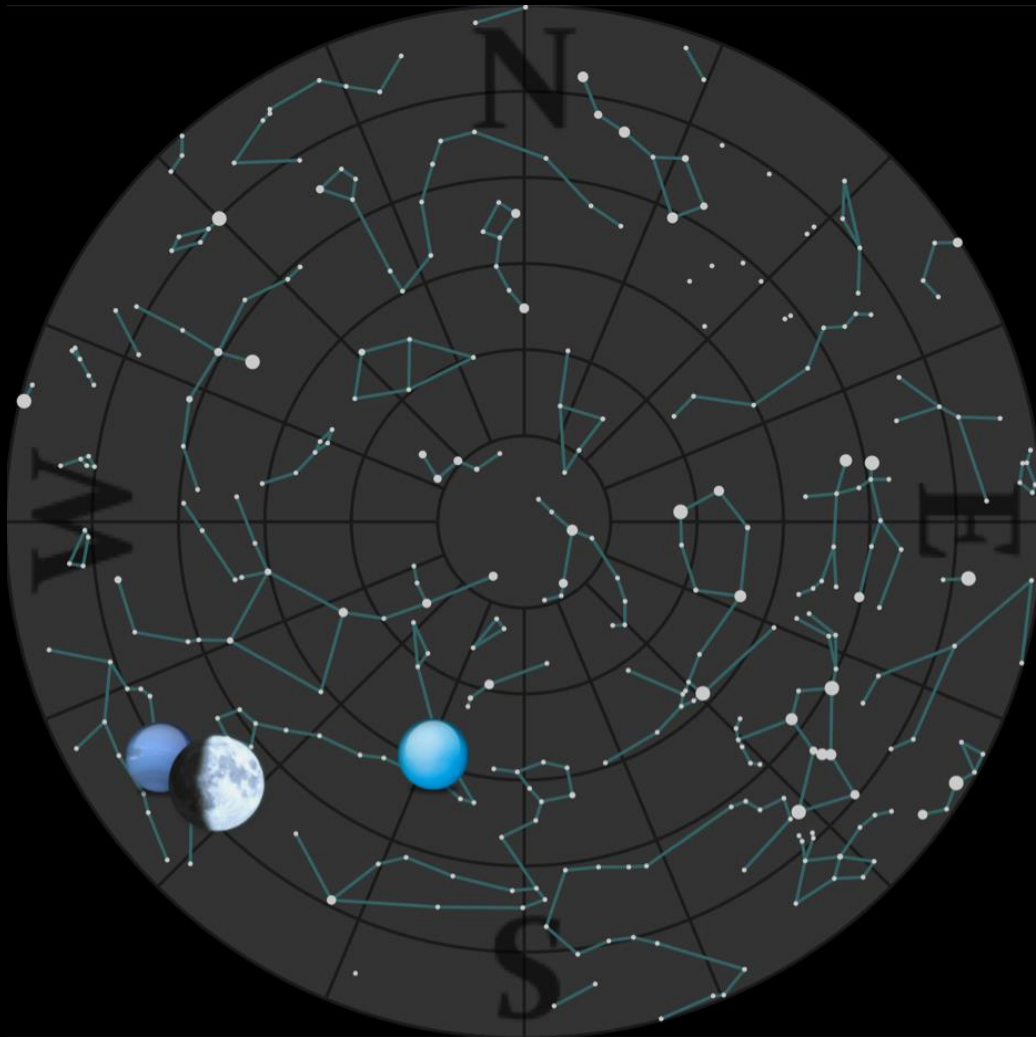


What's Up?

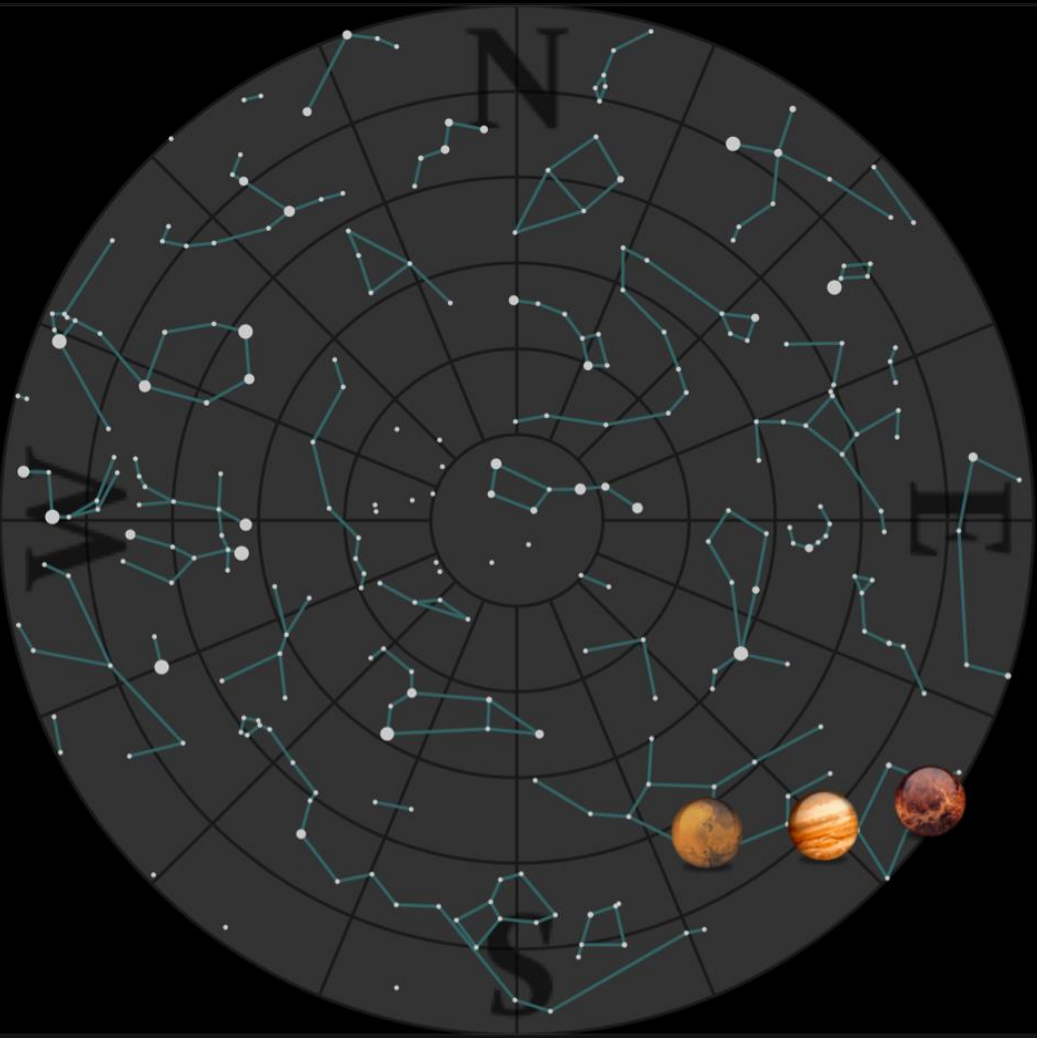
2017 November 27 to 2018 January 15

Bill Barton, FRAS

•The Sky 22:00
Tonight



•The Sky 07:00
Tomorrow Morning



Inner Solar System

- Sun
 - Declination decreasing (Solstice December 21, Perihelion January 3) then increasing
- Mercury
 - In the evening sky at the beginning of this period
 - Inferior conjunction (our side of the Sun) on December 13
 - Then in morning sky and favourable for observation
- Venus
 - In morning sky
 - Superior conjunction with the Sun (far side) on January 9
 - Then in evening sky
 - Elongation increasing and phase decreasing

Earth

- Moon
 - Full, December 3 (Cold Moon), January 2 (Long Night Moon)
 - Last Quarter, 10, January 8
 - New, 18
 - First Quarter, 26 (Boxing Day)
- Eclipses
 - None this period
- Meteors
 - Geminid stream, December 8-15, ZHR = 100+
 - Quadrantid stream, January 1-6, ZHR = 80+

Lunar Occultations

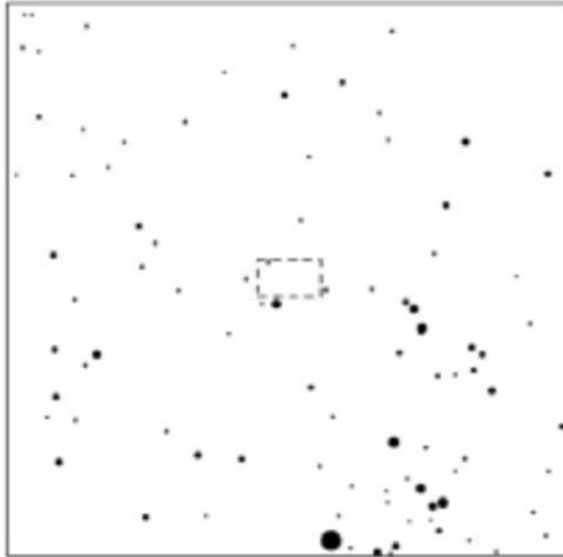
- Three notable events this period
 - α Leonis (Regulus)
 - December 8, 22:13, dark limb reappearance
 - α Tauri (Aldebaran)
 - December 31, 01:14, dark limb disappearance
 - December 31, 01:59, bright limb reappearance
 - α Leonis (Regulus)
 - January 5, 08:24, bright limb disappearance
 - January 5, 09:19, dark limb reappearance

TNO HIGHLIGHT

1998WV31 & HSOY 523706083

2018 Jan 3 0^h55.0^m U.T.

| | | | |
|-------------------------|---------------------------------|---|----------------------------------|
| Planet: | a = 39.25, e = 0.27 | Star: | Source cat. HSOY |
| V. mag. = 23.40 | Diam. = 131.8 km = 0.00" | $\alpha = 4^{\text{h}}40^{\text{m}}43.296^{\text{s}}$ | $\delta = +23^{\circ}38'01.34''$ |
| $\mu = 2.84''/\text{h}$ | $\pi = 0.24''$ Ref. = MPO339366 | Vmag = 12.74 | Bmag = 15.29 |
| $\Delta m = 10.7$ | Max. dur. = 6.2s | Sun : 149° | Moon : 44° , 99% |

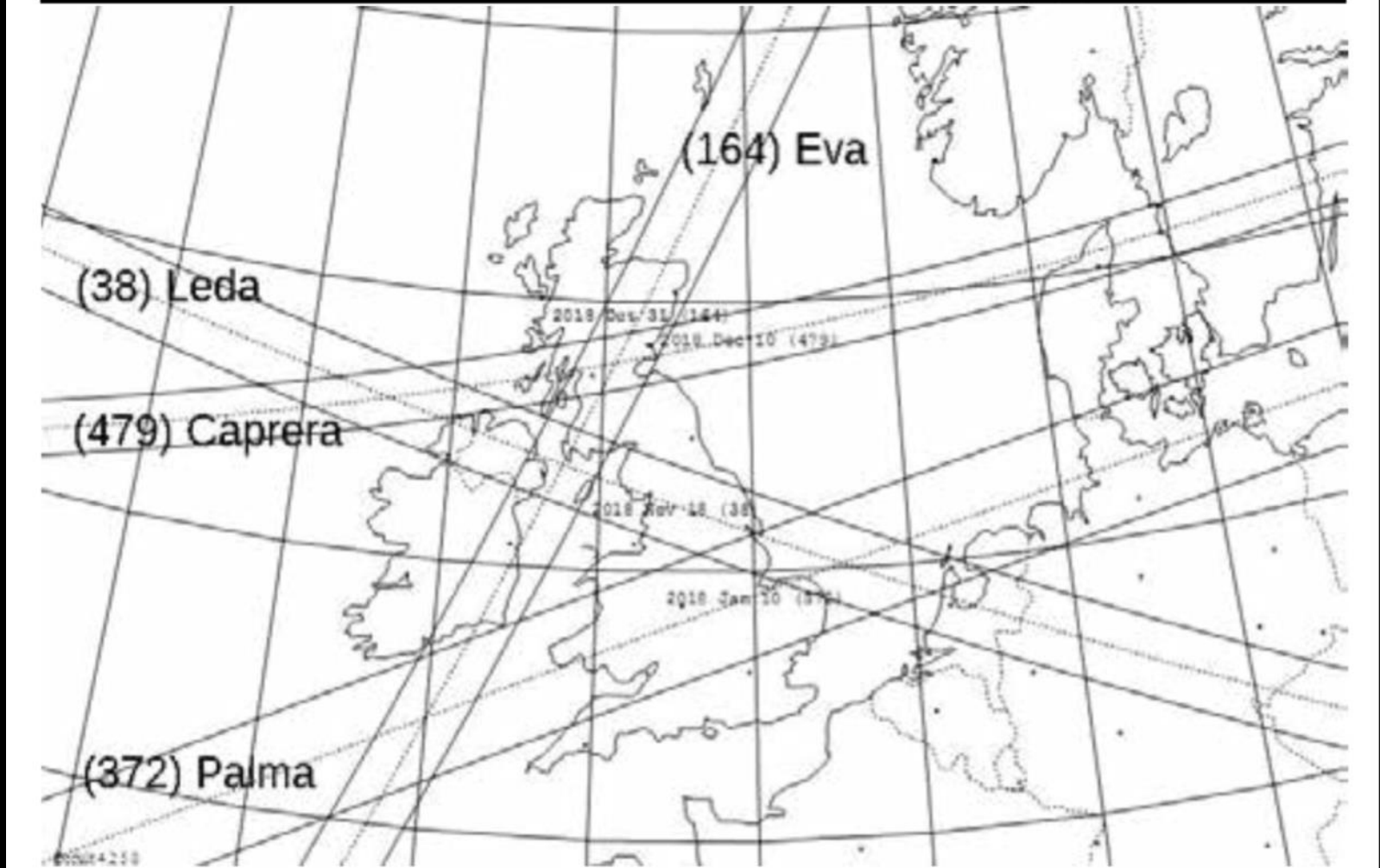


TNO 1998WV31

00:55, 3 January 2018

Magnitude +12.7 star will drop 10.7 mag, 6 sec

ASTEROID OCCULTATIONS



Asteroid 372 Palma

01:09, 10 January 2018

Magnitude +9.1 star will drop 1.8 mag, 15.8 sec

Outer Solar System

- Mars
 - In morning sky moving away from the Sun
 - Opposition July 27
- Jupiter
 - In morning sky moving away from the Sun
 - Opposition May 9
- Saturn
 - Conjunction December 21. Opposition June 27, 2018
 - Only just in the evening sky, then.....
- Uranus
 - Opposition on October 24, 2018
- Neptune
 - Opposition on September 7, 2018

Society Events

- Saturday December 9
 - Field Trip to Observe Grazing Lunar Occultation of ZC1522, 5:30am
- Monday December 11
 - NOGS, Newbourne Village Hall, 7:00pm
- Wednesday December 13
 - OASI Christmas Meal, The Fox, Newbourne (Observatory closed)
- Saturday January 20
 - AGM, Methodist Church Hall, Black Horse Lane, Ipswich, 7:30pm

Other Events I

- DASH
 - Discussion Meeting, Saturday January 7, 7:30pm, Westleton Village Hall, Prof. Michael Rowen-Robinson 'Shakespeare's Astronomy'
 - Observing Meeting, Saturday January 21, 7:30pm, Westleton Heath.
- LYRA
 - AGM, TBA, Wednesday January 10, Coach House Room, Parkhill Hotel, Oulton.
 - Observing Meeting, 7:30pm, Wednesday January 24, Barn Car Park, Parkhill Hotel.

Other Events II

- Athenæum Astronomical Association
 - Observing Meetings, Nowton Park, Thursday 7 December, 4 and 18 January from 7:30pm.
- British Astronomical Association
 - Christmas Meeting, Kings College, Strand, London, Saturday December 9 2:00pm to 6:00pm.

2018 Highlights I

- Planetary Conjunctions
 - January 7, Mars 0.2° south Jupiter
 - March 29, Venus 0.07° south Uranus
 - December 7, Neptune 0.04° south Mars
 - [cf. 2017 November 13, Jupiter 0.3° south Venus]
- Bright Comets
 - Giacobini-Zinner 21/P, early September 2018, mag. +3.6
 - Wirtenan 46/P, mid December 2018, mag +2.9, 30x Moon distance, 7.5 million miles

2018 Highlights II

- Friday 27 July
 - Mars at Opposition (05:00UT, 24.2" (94% max), mag -2.4 (brighter than Jupiter), -25° declination)
 - Lunar eclipse at Sunset/Moonrise
 - Beginning of eclipse 18:24UT (19:24BST)
 - Moonrise 19:50UT (20:50BST)
 - Sunset 19:53UT (20:53BST)
 - Greatest eclipse 20:22UT (21:22BST)
 - End of Totality 21:13UT (22:13BST)
 - End of Civil Twilight 21:36UT (22:36BST)
 - End of eclipse 22:19UT (23:19BST)