Sky Outlook
November 2019

Transit of Mercury 11th November

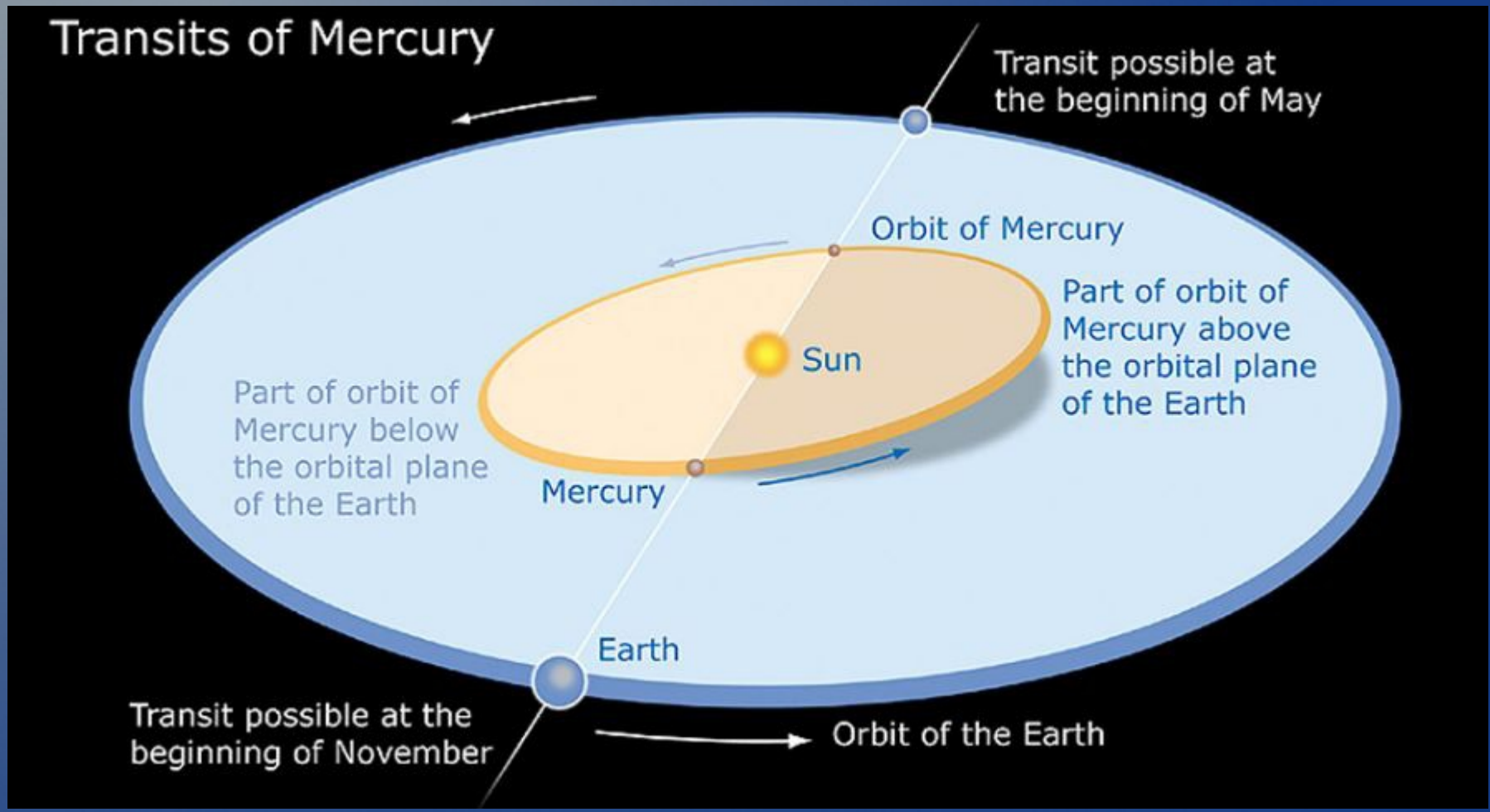
Mercury passes through inferior conjunction on the 11th November passing between the Earth and Sun and its path this time round will coincide with that of the Sun allowing us,from our vantage point to see Mercury pass across the Sun. The last one was in 2016 and the next will be in 2032.

First contact (ingress) is at 12:35pm GMT

Second contact (full disk of planet on Sun) 12:37pm GMT

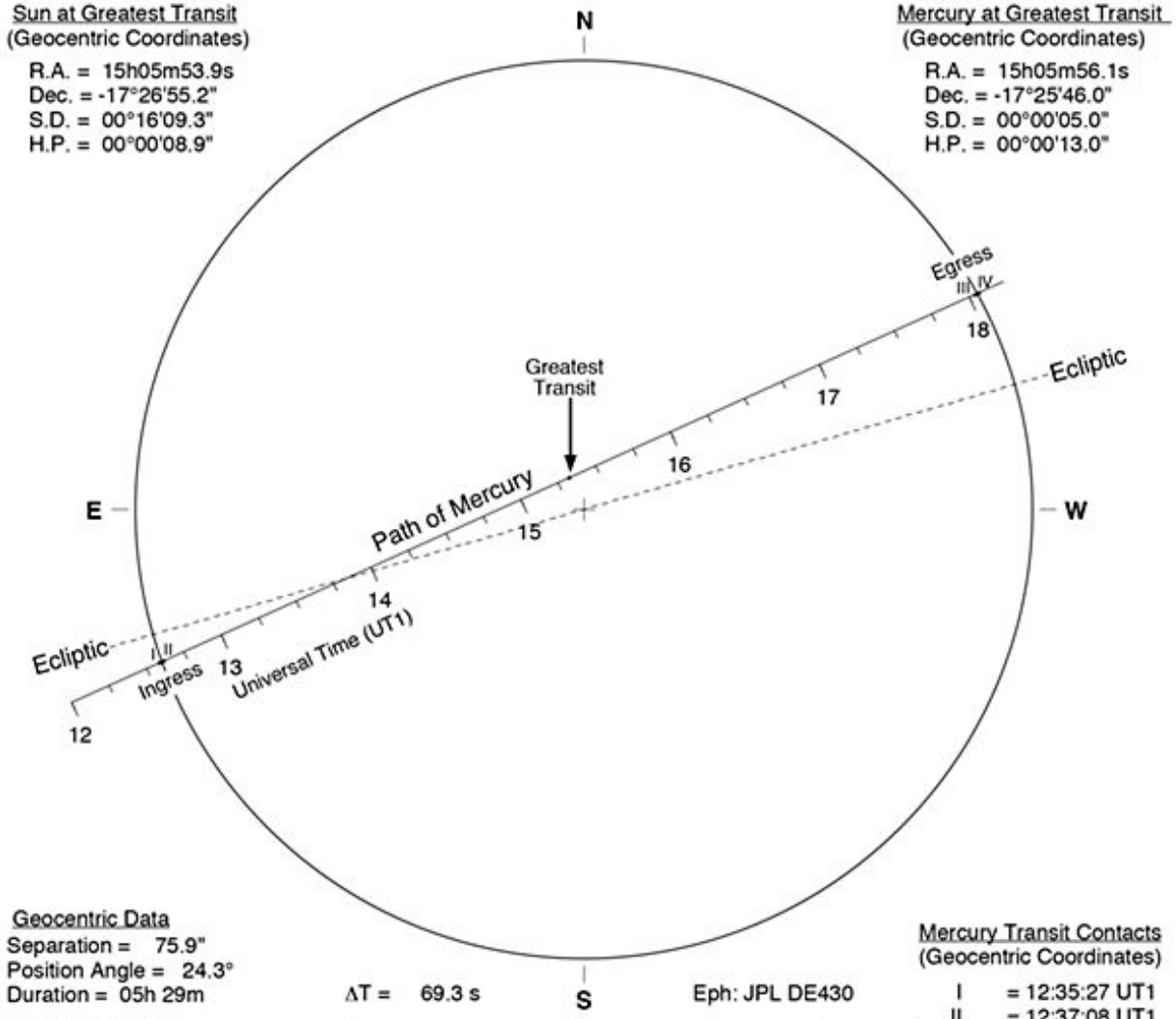
Greatest transit (planet at midway point across Sun) is at 15:19pm GMT.

The transit finishes at 18:04pm GMT but by this time the Sun will have long since set in the UK. (16:17pm London)


Transits of Mercury
Transit possible at the beginning of May
Orbit of Mercury
Part of orbit of Mercury above the orbital plane of the Earth
Sun
Part of orbit of Mercury below the orbital plane of the Earth
Mercury
Earth
Transit possible at the beginning of November
Orbit of the Earth

Transit of Mercury: 2019 Nov 11

Greatest Transit = 15:19:47.7 UT1



Sun at Greatest Transit
(Geocentric Coordinates)

R.A. = 15h05m53.9s
Dec. = -17°26'55.2"
S.D. = 00°16'09.3"
H.P. = 00°00'08.9"

Mercury at Greatest Transit
(Geocentric Coordinates)

R.A. = 15h05m56.1s
Dec. = -17°25'46.0"
S.D. = 00°00'05.0"
H.P. = 00°00'13.0"

Geocentric Data

Separation = 75.9"
Position Angle = 24.3°
Duration = 05h 29m

Ascending Node

Transit Series = 247
Sequence No. = 11 of 19

ΔT = 69.3 s

Eph: JPL DE430

0 5 10 15
Arc-Minutes

Mercury Transit Contacts
(Geocentric Coordinates)

I	= 12:35:27 UT1
II	= 12:37:08 UT1
Greatest	= 15:19:48 UT1
III	= 18:02:33 UT1
IV	= 18:04:14 UT1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Solar System

Mercury: will be transiting the Sun on the 11th and by the end of the month will become a morning object.

Venus: an evening object but due to its position in the twilight sky will be difficult to observe.

Mars: a morning object although shining faintly lying in Virgo.

Saturn: still visible in the early evening sky but best to catch in early half of the month

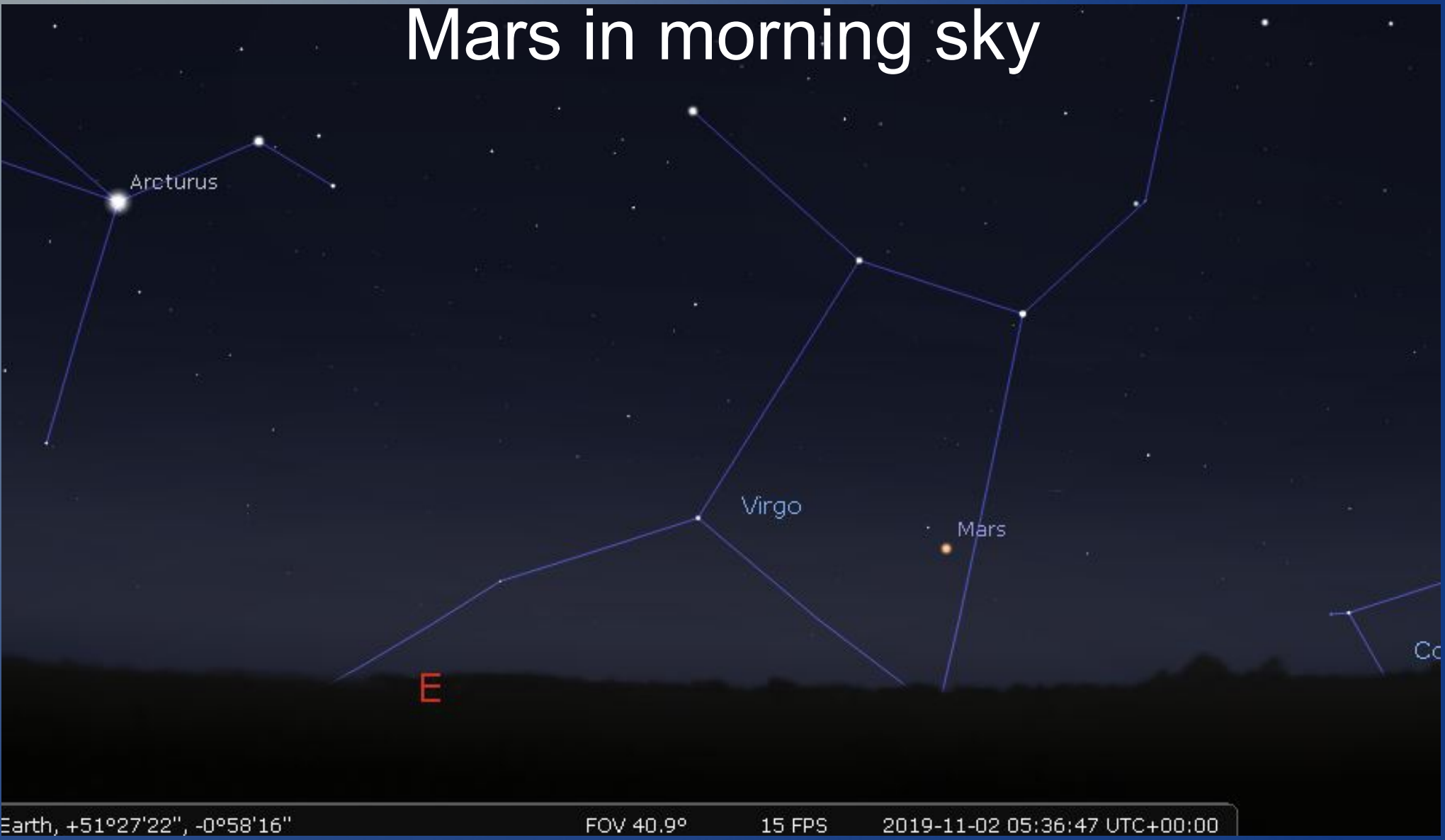
Uranus: well placed in the evening sky lying in Aries.

Neptune: an evening object in Aquarius,sets around midnight by the end of the month.

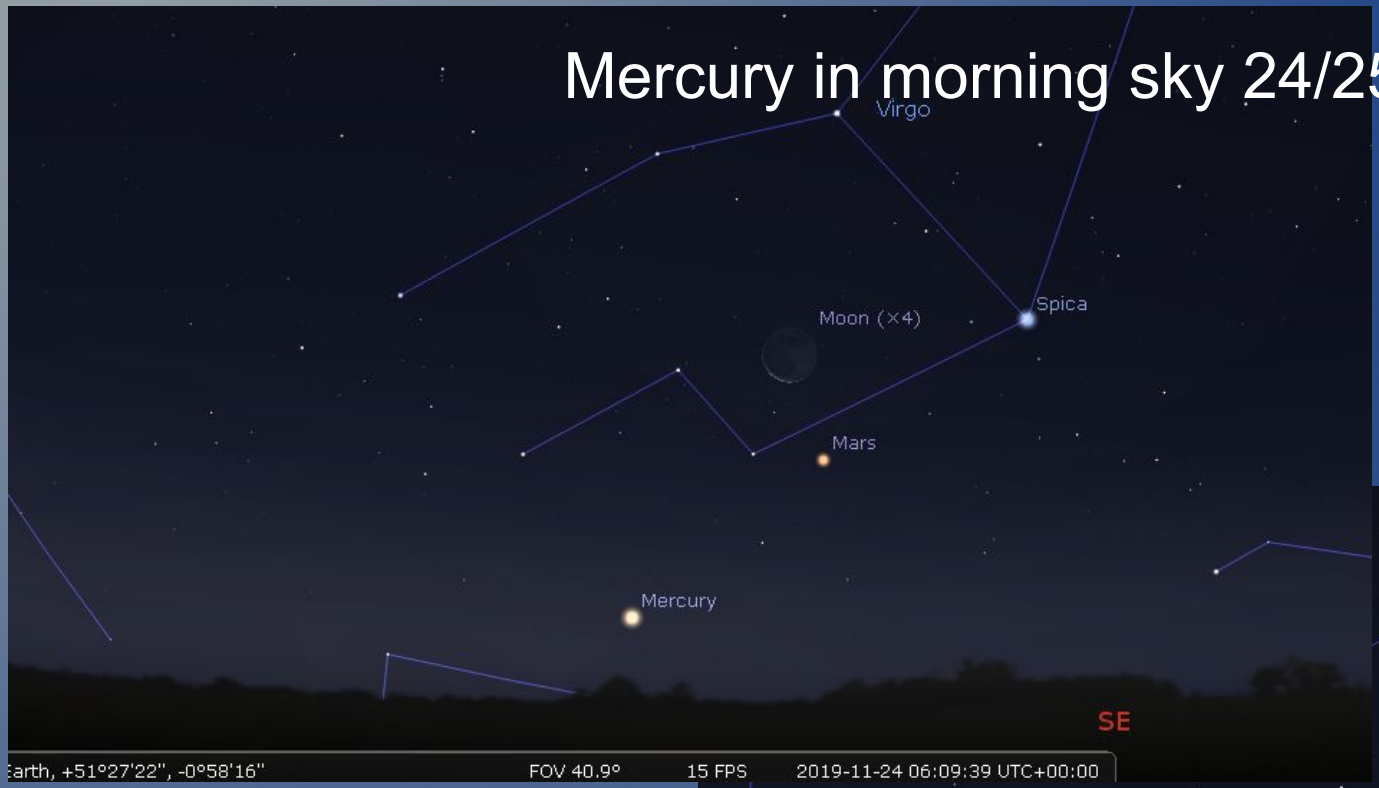
Evening of 2nd November

Uranus & Neptune

Mars in morning sky



Mercury in morning sky 24/25th



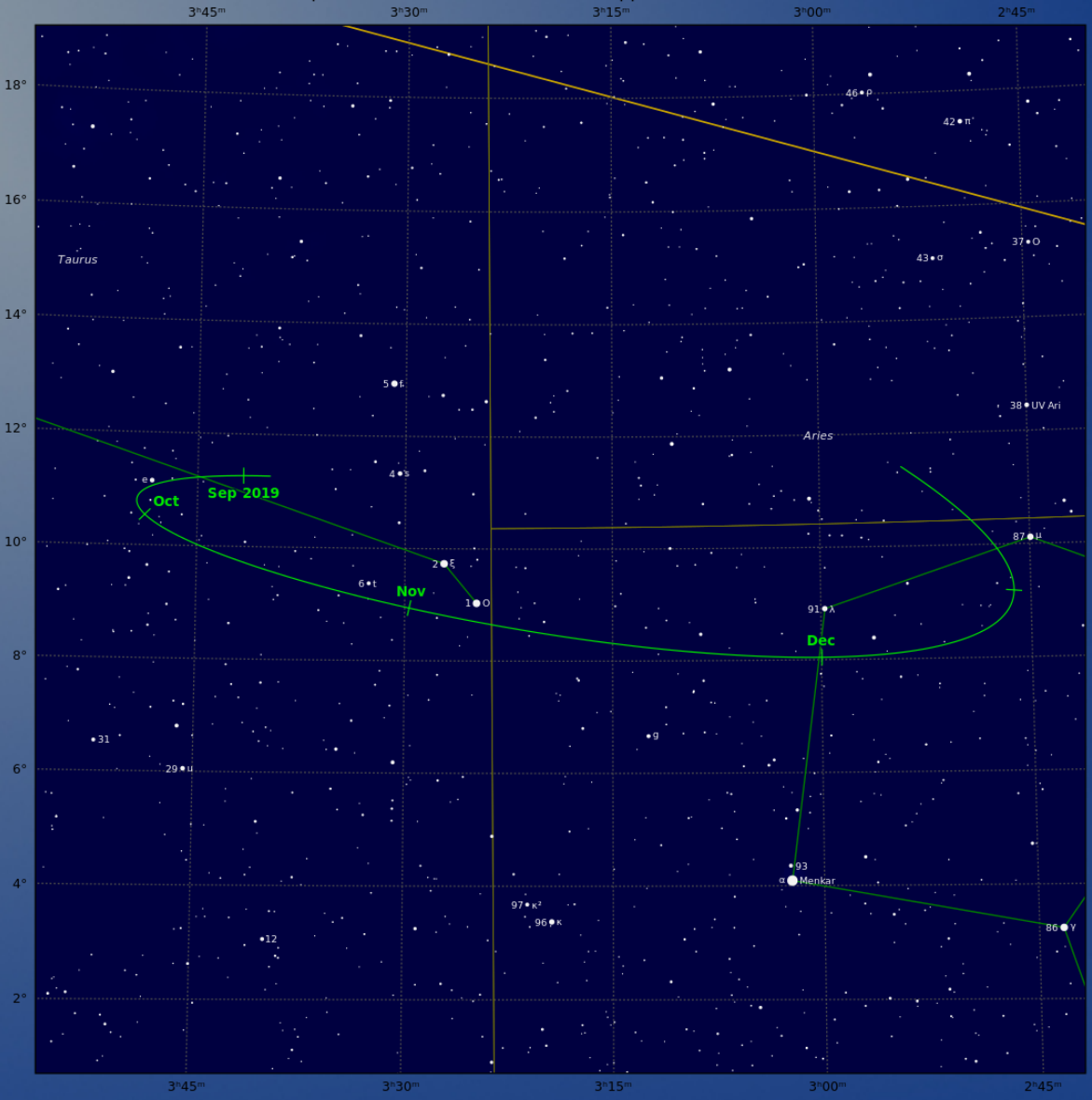
Asteroids/Comets

Vesta: lying between Taurus and Cetus at magnitude +6.5 comes to opposition on 12/13th November.

Comet 2017 T2 (PanSTARRS) is best seen in late evening in Auriga.

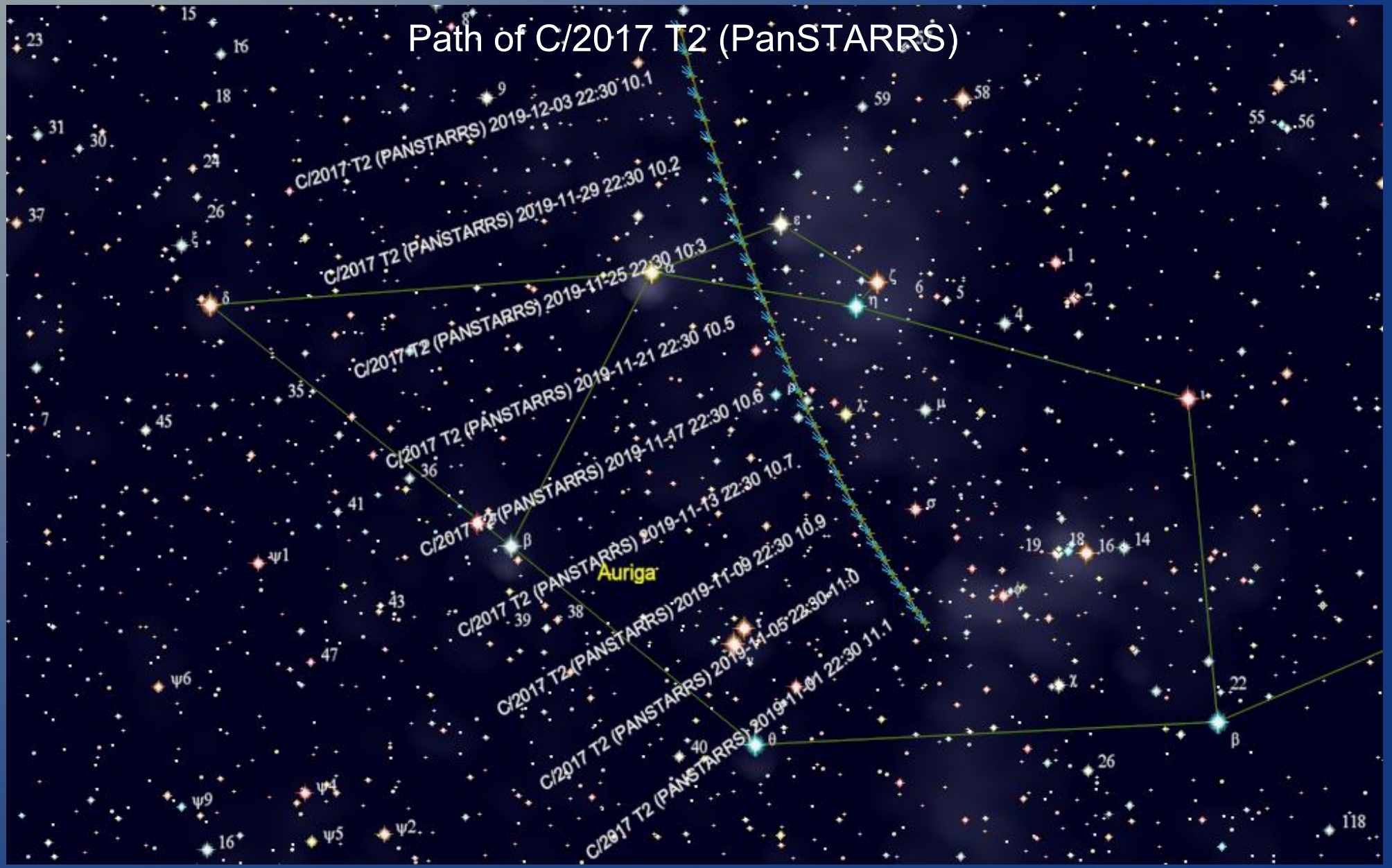
Comet 2018 N2 (ASASSN) can be found passing through Andromeda and it is just three degrees south of M31 at the start of this month.

The path of Asteroid 4 Vesta around opposition on 12 Nov 2019



Magnitude scale: 9.5 9.0 8.5 8.0 7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0

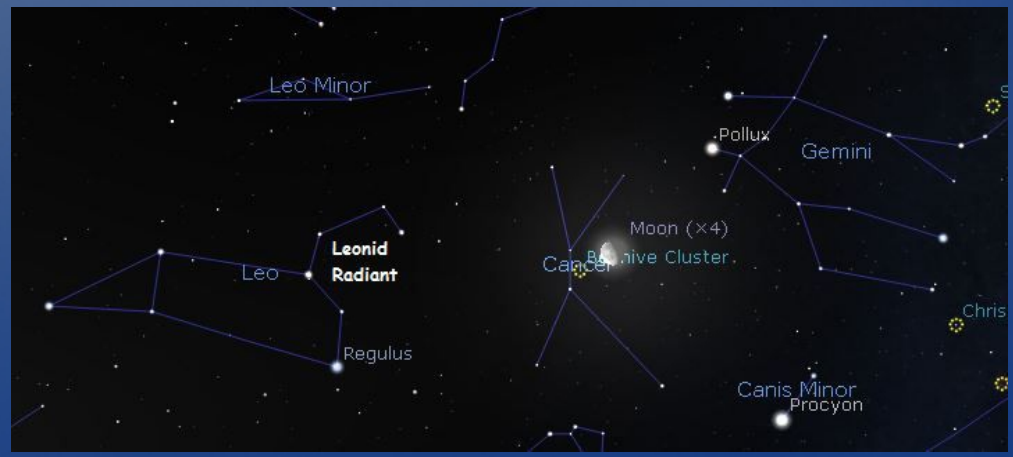
Ecliptic Plane


Path of C/2017 T2 (PanSTARRS)
C/2017 T2 (PANSTARRS) 2019-12-03 22:30 10.1
C/2017 T2 (PANSTARRS) 2019-11-29 22:30 10.2
C/2017 T2 (PANSTARRS) 2019-11-25 22:30 10.3
C/2017 T2 (PANSTARRS) 2019-11-21 22:30 10.5
C/2017 T2 (PANSTARRS) 2019-11-17 22:30 10.6
C/2017 T2 (PANSTARRS) 2019-11-13 22:30 10.7
C/2017 T2 (PANSTARRS) 2019-11-09 22:30 10.9
C/2017 T2 (PANSTARRS) 2019-11-05 22:30 11.0
C/2017 T2 (PANSTARRS) 2019-11-01 22:30 11.1
Auriga

Path of C/2018 N2 (ASASSN)

Meteor showers

Leonid meteor shower is active between the 6th and 30th November with the peak rate around the 18th. ZHR is 15 meteors an hour and parent body for supplying debris is Comet 55P/Temple-Tuttle. Radiant lies within the “sickle” of Leo and observers will have to wait until after 22:15 for the constellation to rise but best time will be just before dawn when it will be placed overhead. Last Quarter Moon will be close by in Cancer and will interfere with viewing.




4th
12th
26th
19th

Tonight's sky after meeting

Clear Skies!!