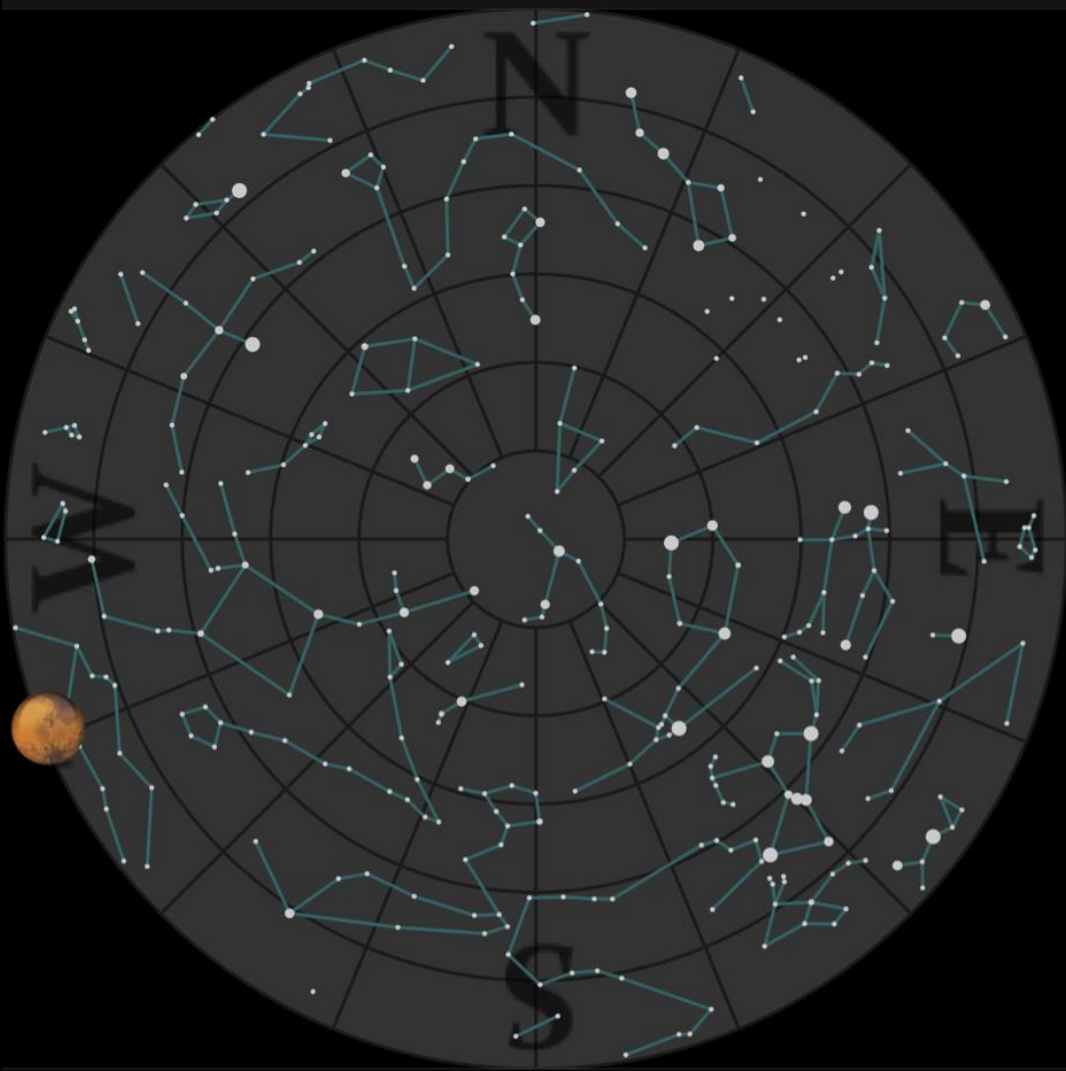


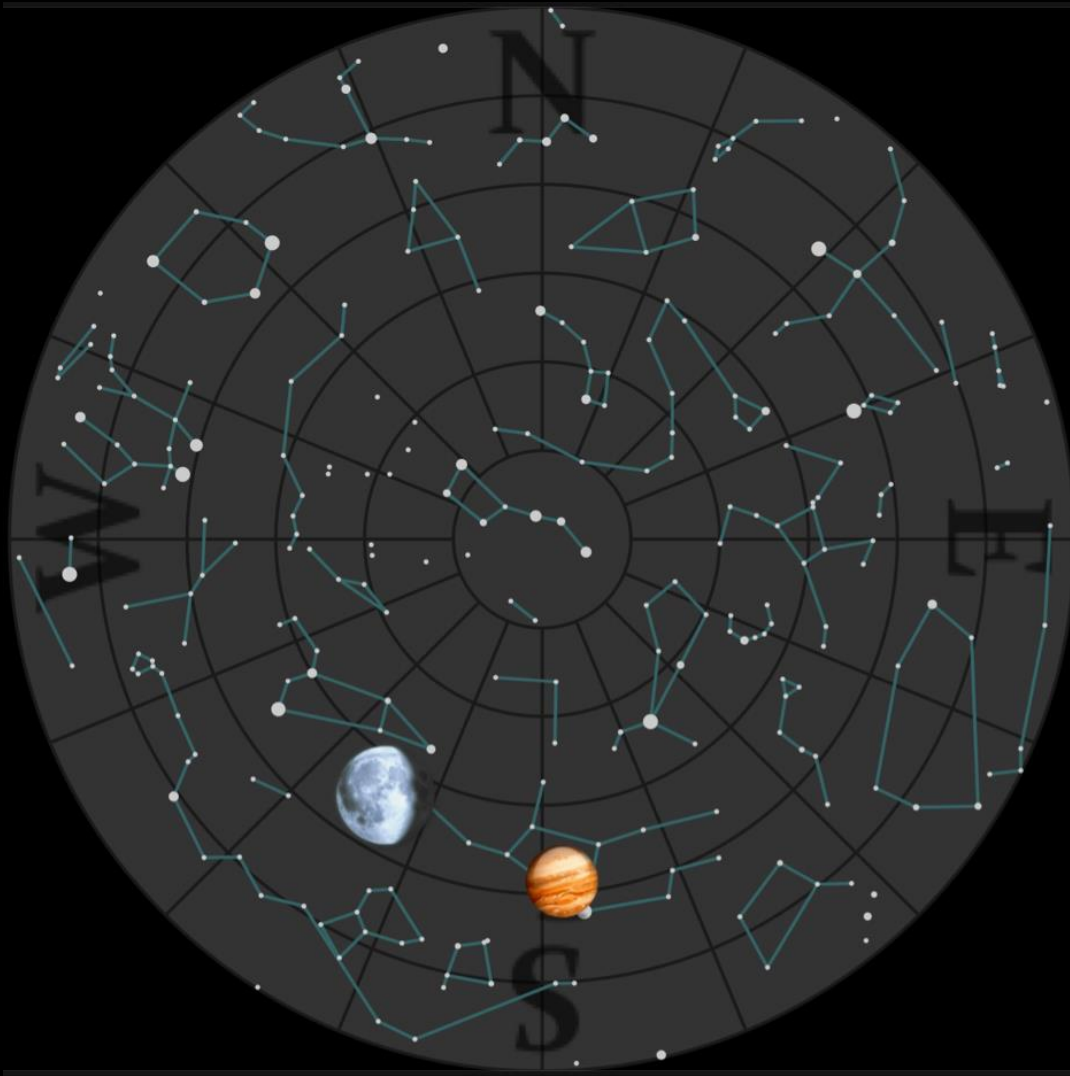
What's Up?

2016 December 19 to 2017 January 30

Bill Barton, FRAS

- The Sky 22:00
Tonight





- The Sky 08:00
Tomorrow Morning

Inner Solar System

- Sun
 - Solstice on December 21, in Ophiuchus
 - Perihelion on January 04 (Super Sun?)
- Mercury
 - In the evening sky at the beginning of this period, in Sagittarius
 - Inferior conjunction on December 28
 - Then in morning sky
 - Maximum western elongation on January 19 (24°)
- Venus
 - In evening sky, in Capricornus, phase reducing
 - Maximum eastern elongation (theoretical dichotomy) on January 12 (47°)

The Schröter Effect

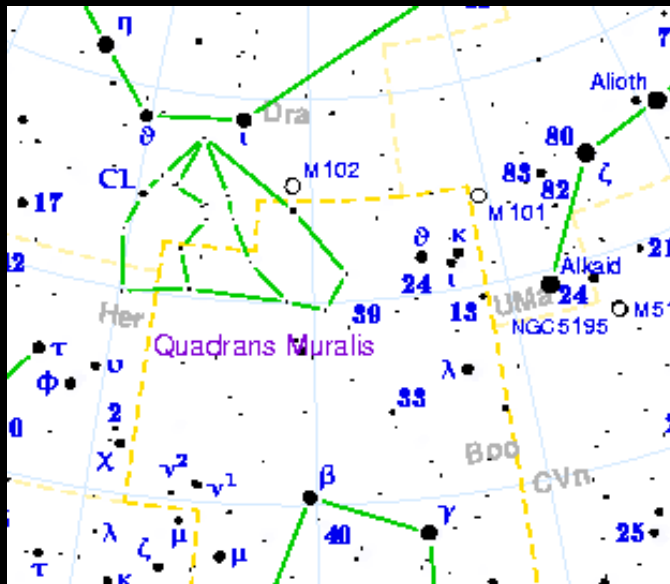
- Venus
 - Shows phases like our Moon
 - New Venus, at inferior conjunction (between us and the Sun)
 - Full Venus, at superior conjunction (far-side of Sun)
 - 'Quarters' at greatest elongations, western elongation occurs in morning sky, eastern for evening sky
 - But dichotomy (half-Venus) varies by around three days from theoretical date due to sunlight scattering in Venus' atmosphere
 - Terminator appears with a concave curve
 - Blue light affected more than red, so visibility of effect depends on your colour perception
 - This is known as the "Schröter Effect"

Earth

- Moon
 - Last Quarter, December 21, January 19
 - New, December 29, January 28
 - First Quarter, January 05
 - Full, January 12 (Old Moon)
- Eclipses
 - None this period
- Meteors
 - Quadrantids, January 01-06, ZHR 80+ (parent body, 2003 EH₁)
- Leap Second
 - A leap second will be added to 23:59 on December 31 2016 to keep UTC in line with Mean Solar Time



- Quadrans Muralis Constellation



- Same area of sky now
- Radiant Point
 - RA 15^h 28^m
 - Dec +50^o

Outer Solar System

- Mars
 - In south-west at sunset, setting around 9pm, four hours after the Sun. In Sagittarius
- Jupiter
 - Visible in morning sky, rising about 2am. In Virgo
- Saturn
 - In the morning sky, rising around 6am. In Ophiuchus

Society Events

- Grazing Lunar Occultation
 - 22 December, HIP 63099
- Annual General Meeting
 - 21 January 7:30pm, Methodist Church Hall, Blackhorse Lane, Ipswich.

Other Events

- DASH
 - 'Stargazing Live' Meeting, Friday/Saturday January 27-28, Minsmere
- BAA Meeting
 - Saturday January 21, 2:00pm to 6:00pm, Burlington House, Piccadilly, London.

2017 Highlights

- Eclipses
 - Penumbral Lunar February 11 (visible from UK)
 - Annular Solar February 26 (South Atlantic)
 - Partial Lunar August 07 (Central Asia)
 - Total Solar August 21 (United States of America)
- Lunar Occultations
 - Aldebaran five times (Apr, Jun, Aug, Nov, & Dec)
 - Regulus once (Dec)
 - Mercury (July 25, 07:33-07:53UT), Moon two days old, rises at 06:43UT. Mercury +0.3 mag, greatest eastern elongation on July 30, (27°)
- Planetary Conjunction
 - Mercury-Mars (September 16, 18:00UT) 0.06° . 3.6' arc ~ 1/10 Moons diameter.