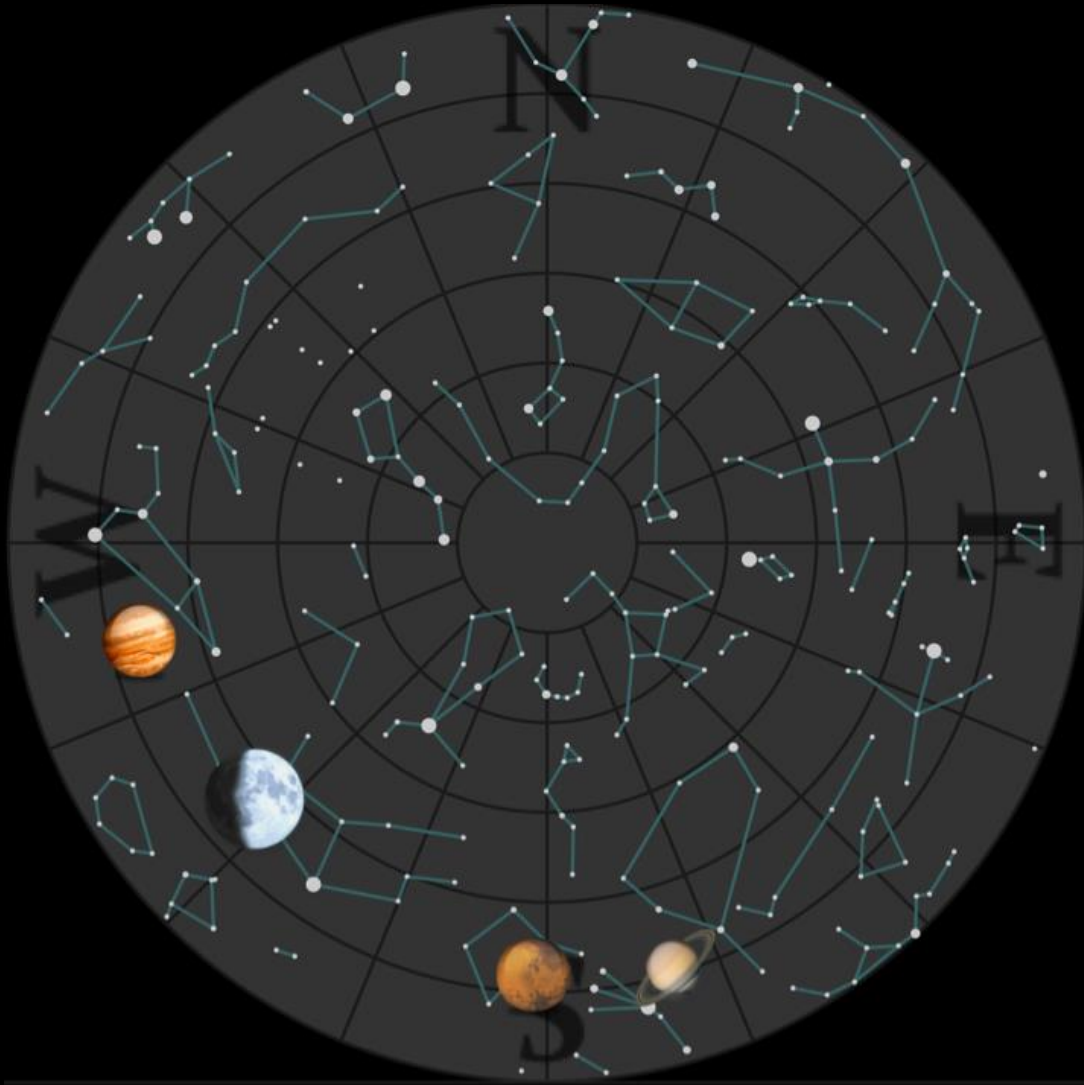


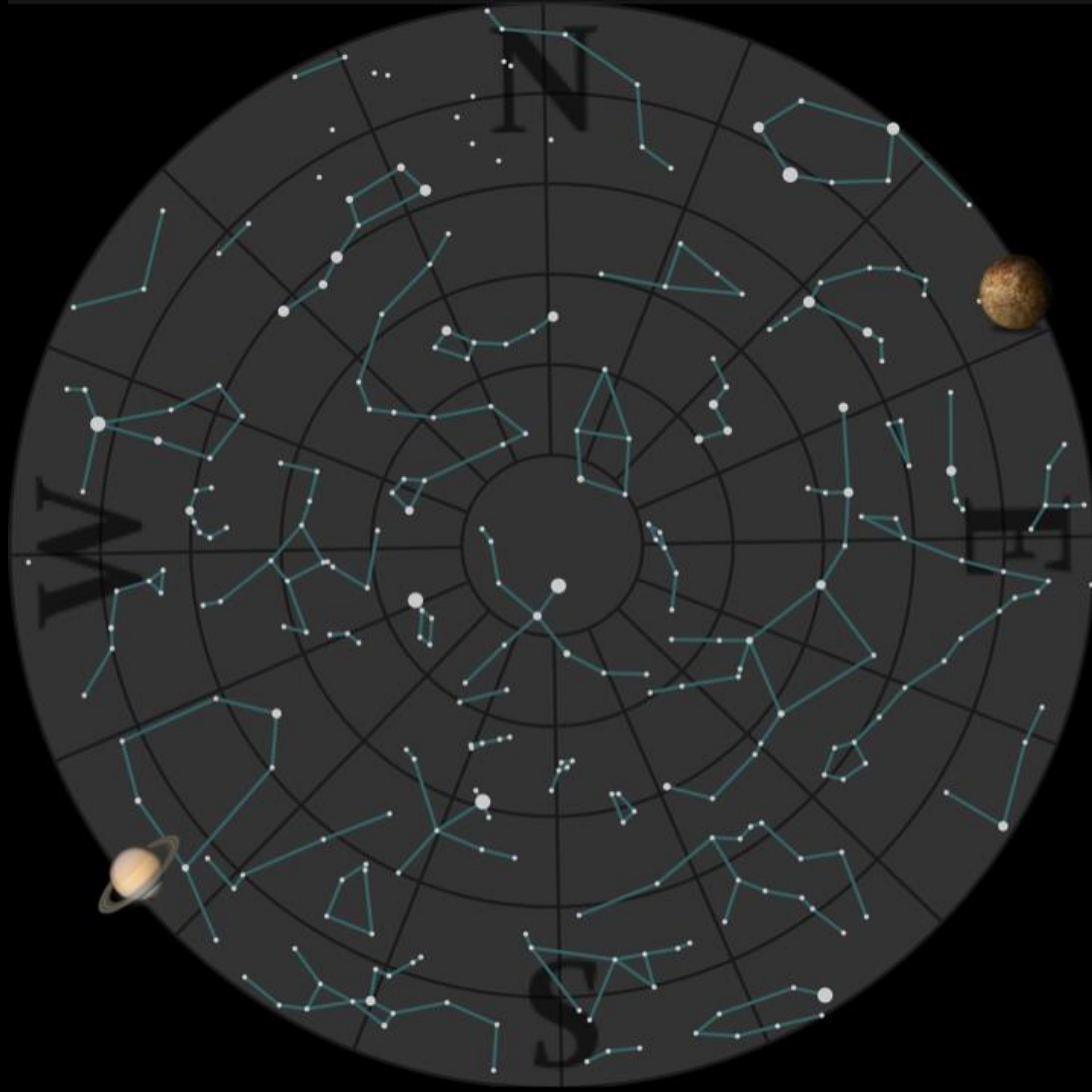
What's Up?

2016 June 13 to July 11

Bill Barton, FRAS

- The Sky 22:00
Tonight





- The Sky 03:00
Tomorrow Morning

Inner Solar System

- Sun
 - Solstice on 20 June
 - Aphelion on 04 July
- Mercury
 - Superior Conjunction on July 07 (far side of Sun)
 - In the morning sky this period
 - Brightening but elongation decreasing through this period
- Venus
 - Superior Conjunction was on June 06 (far side of Sun)
 - In evening sky moving away from the Sun
 - Getting increasingly easier to see

Earth

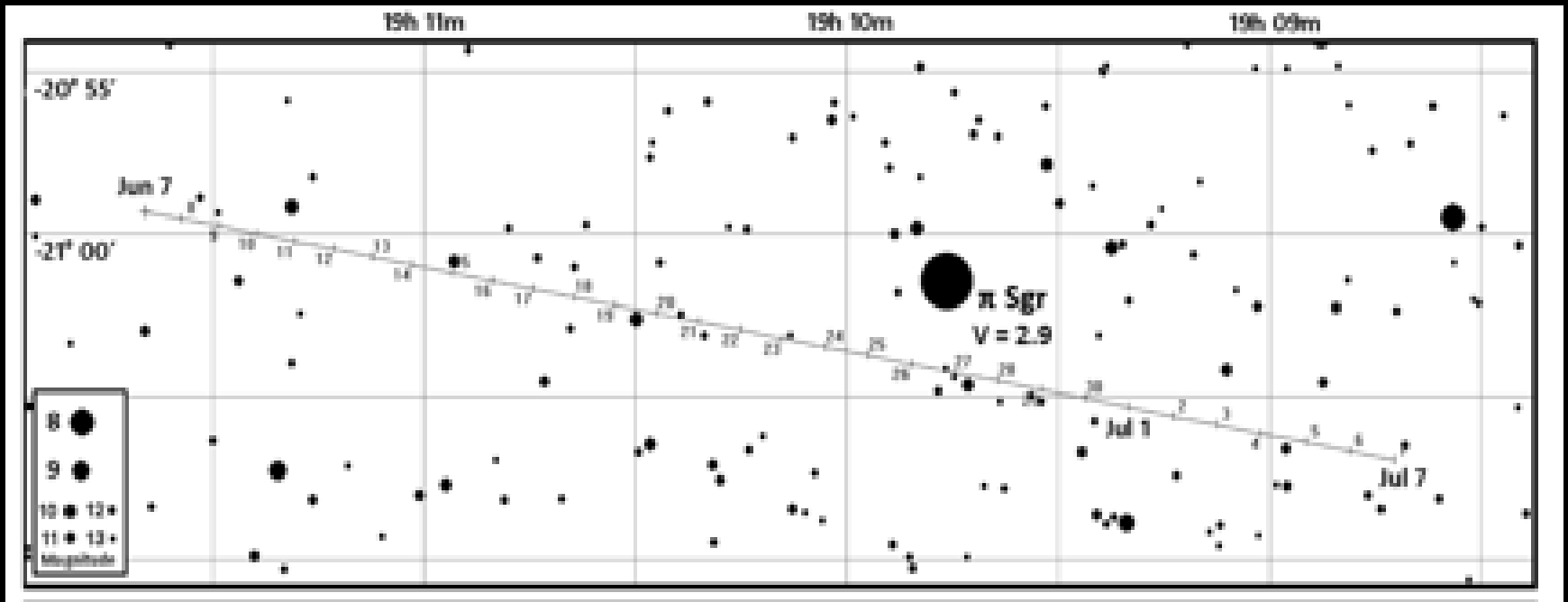
- Moon
 - Full June 20
 - Last Quarter June 27
 - New July 04
 - First Quarter July 12
 - Three Lunar Occultations this period but only 4th and 5th magnitude stars
- Eclipses
 - None this period
- Meteors
 - Only minor activity this period

Outer Solar System

- Mars
 - Rising before midnight UT, in Libra
- Jupiter
 - In the evening sky, in Leo
- Saturn
 - Rising around midnight UT, Opposition was on June 03, in Ophiuchus
- Pluto
 - Opposition on 07 July, in 'teaspoon ' in Sagittarius

Pluto

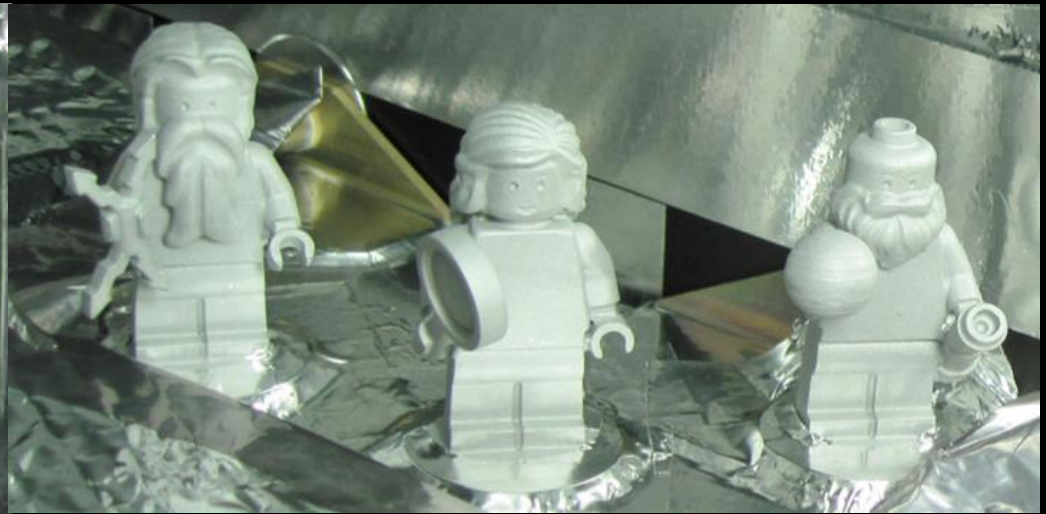
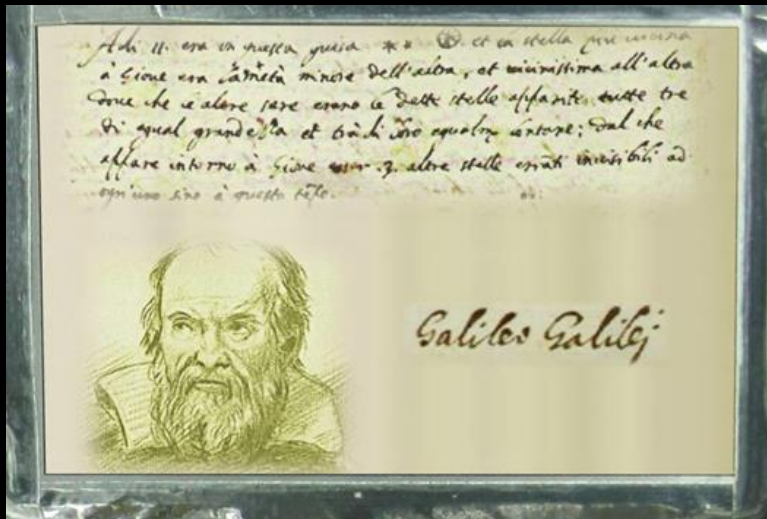
- Due East on June 16 and due South on June 27 of mag 2.9 π Sagittarii, but will require at least 250mm (10") aperture





- NASA Juno probe arrives at Jupiter on July 4 and goes into a polar orbit to study the planet for the next year or two.

- Probe carries two 'novelty' items
 - a plaque provided by the Italian Space Agency dedicated to Galileo
 - three lego figures of Jupiter, his wife Juno and Galileo.



Tim Peake

comes home this weekend