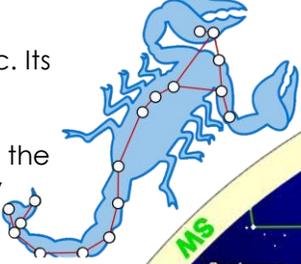
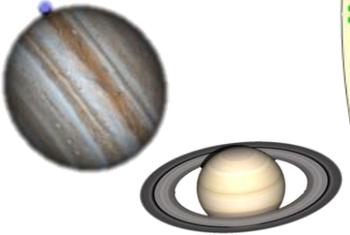


**Scorpius** is one of the constellations of the zodiac. Its name is Latin for scorpion. Scorpius is one of the 48 constellations identified by the Greek astronomer Ptolemy in the 2<sup>nd</sup> century.

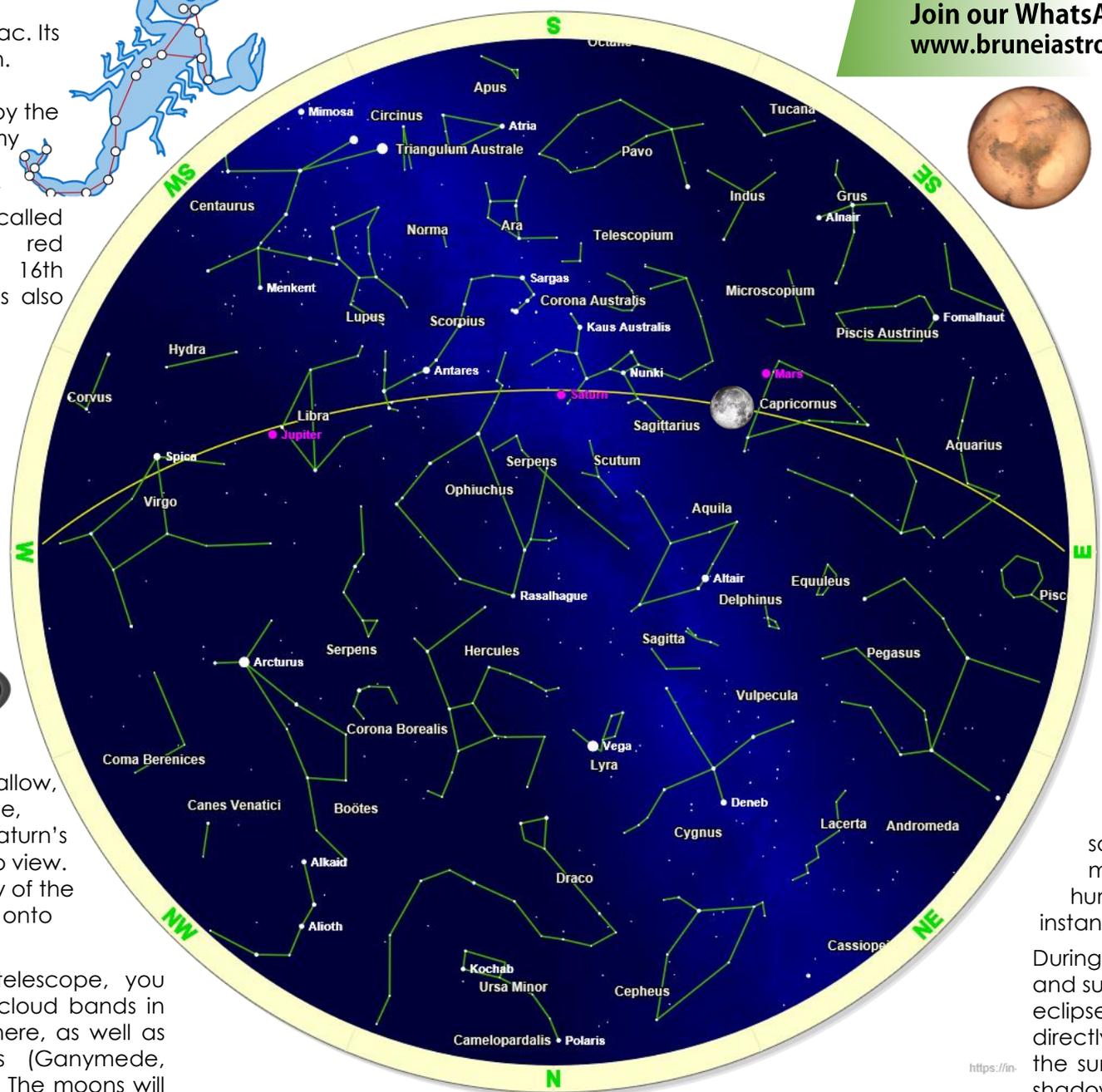


Scorpius has many bright stars. Antares, also called alpha Scorpii, is a red supergiant and the 16th brightest star. Scorpius is also home to four deep space objects that were among the first to be catalogued by Charles Messier: M4; M6 also called the Butterfly Cluster; M7 and M80



**Saturn** If seeing and atmospheric conditions allow, through a small telescope, the dark groove of the Saturn's Cassini division snaps into view. Can you see the shadow of the disk of Saturn, cast back onto the plane of the rings?

**Jupiter** From a small telescope, you should be able to see cloud bands in the gas giant's atmosphere, as well as its four largest moons (Ganymede, Callisto, Europa and Io). The moons will appear as tiny, bright dots that change position every few hours or days.



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**Mars** will continue to brighten and grow in size as we approach opposition night on July 27. At opposition, Mars' disk will be 24.3 arc-seconds across (or two-thirds the size of Jupiter's disk) and shine with a visual magnitude of -2.8. Tonight, the Red Planet reaches its closest point to Earth at 10pm, it will be a mere 57.6 million km away. The Red Planet's next-closest approach won't occur until 2035.



**The moon** is the easiest celestial object to find tonight. Earth's only natural satellite and rhythm of the moon's phases has guided humanity for millennia — for instance, Islamic calendar months.

During eclipses, the moon, Earth and sun are in a straight line. A lunar eclipse takes place when Earth gets directly or almost directly between the sun and the moon, and Earth's shadow falls on the moon. A lunar eclipse can occur only during a full moon which is tonight.

**Sky Map from Bandar Seri Begawan on July 27, 2018 at 22 00 hours**

Prepared by the Astronomical Society of Negara Brunei Darussalam  
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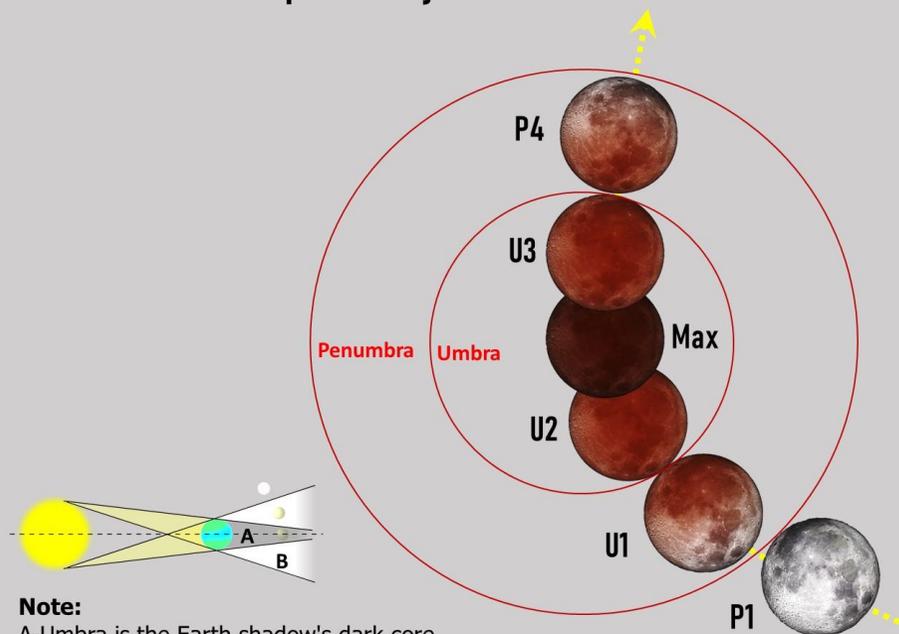
<https://in>

# Programme (\*\*Subject to Weather)

- 7.00 pm : Skywatching and Mars Observation \*\*
- 8.00 pm : Astronomy Talk Session I
- 9:00 pm : Astronomy Talk Session II
- 10:00 pm : Astronomy Talk Session III
- 1:00 am : Lunar Eclipse Observation \*\* & Livestream View  [www.facebook.com/bruneiastronomy](http://www.facebook.com/bruneiastronomy)
- 5.30 am : Sembahyang Sunat Gerhana
- 5.30 am : Session Ends

**Astronomy Talk:** *Subhanallah man khalaq* (Mahasuci Sang Pencipta) by YM Dr Haji Ahmad @ Ahmad Asri Lubis bin Hj Abusamah. Pensyarah Fakulti Bahasa Arab, UNISSA.

## Path of the Moon into Earth's Shadows and the times during the Total Lunar Eclipse on July 28, 2018 from Brunei Darussalam



**Note:**  
A-Umbra is the Earth shadow's dark core.  
B-Penumbra is the lighter outer part of the shadow.

P1	U1	U2	Max	U3	U4
Penumbral eclipse begins	Partial eclipse begins	Total eclipse begins	Greatest eclipse	Total eclipse ends	Partial eclipse ends
01:14	02:24	03:30	04:22	05:13	06:19

Anjuran Bersama:



Jabatan Ukur  
Kementerian Pembangunan  
[www.mod.gov.bn/survey/](http://www.mod.gov.bn/survey/)



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Persatuan Astronomi  
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# Total Lunar Eclipse Observation + Mars Opposition

## Tonight's Sky Star Map & Highlights



Share your photos of tonight's event on your Instagram with **#bruneiastronomy** or our **facebook.com/bruneiastronomy**

27 Julai 2018 /14 Zulkaedah 1439H (Jumaat)  
bermula 7.00 malam hingga 5.30 subuh  
Taman Mahkota Jubli Emas  
Bandar Seri Begawan