

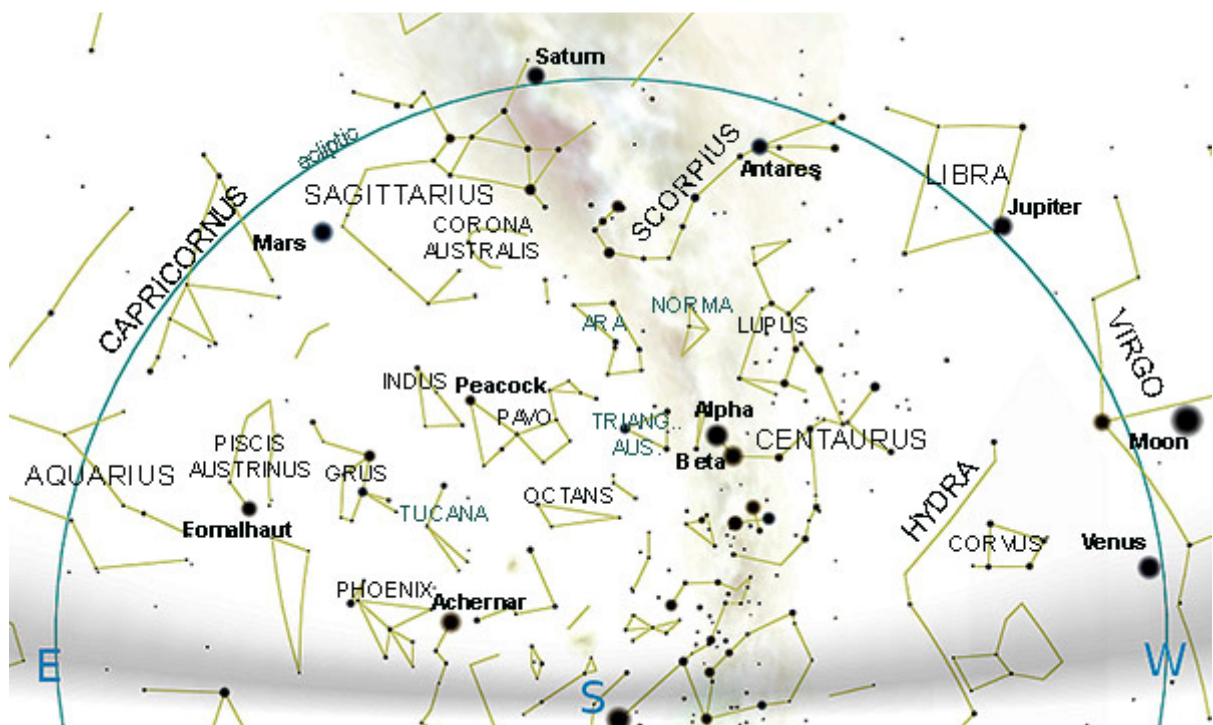


1. SKY CHARTS

EVENING SKY MID AUGUST at 21^h00 (NORTH DOWN)



EVENING SKY MID AUGUST at 21^h00 (SOUTH DOWN)



PLEASE NOTE: All events predicted are as observed from **Hermanus, Western Cape, South Africa.**

2. THE SOLAR SYSTEM

PLANET VISIBILITY

Mercury	Initially low in the west after sunset becoming low in the east before sunrise
Venus	Still the "Evening Star"
Mars	Well-placed throughout the night
Jupiter	Visible in the evening
Saturn	Initially visible throughout the night becoming visible in the evening
Uranus	Visible in the morning
Neptune	Visible throughout the night
Pluto	Initially visible throughout the night becoming visible in the evening

<i>Sun & Planets</i>	<i>AUGUST 2018</i>		<i>1st</i>	<i>31st</i>
Sun Length of day	Cancer to Leo 10h27 to 11h21	Rises:	07h36	07h03
		Transits:	12h50	12h44
		Sets:	18h03	18h24
Mercury Magnitude Phase Diameter	Leo +3.0 to -0.7 7% to 64% 11" to 6"	Rises:	08h00	06h18
		Transits:	13h34	11h38
		Sets:	19h08	16h59
Venus Magnitude Phase Diameter	Virgo - 4.2 to -4.4 57% to 40% 21" to 29"	Rises:	09h46	08h50
		Transits:	15h42	15h25
		Sets:	21h39	22h01
Mars Magnitude Phase Diameter	Capricornus to Sagittarius -2.8 to -2.1 100% to 94% 24" to 21"	Rises:	17h09	14h53
		Transits:	00h33	22h12
		Sets:	07h51	05h35
Jupiter Magnitude Diameter	Libra -2.1 to -1.9 38" to 35"	Rises:	12h06	10h17
		Transits:	18h50	17h04
		Sets:	01h38	23h51
Saturn Magnitude Diameter	Sagittarius +0.2 to +0.4 18" to 17"	Rises:	15h09	13h07
		Transits:	22h17	22h15
		Sets:	05h29	03h27
Uranus Magnitude Diameter	Aries +5.8 to 5.7 4"	Rises:	00h37	22h34
		Transits:	06h07	04h08
		Sets:	11h36	0937
Neptune Magnitude Diameter	Aquarius +7.8 2"	Rises:	20h52	18h50
		Transits:	03h15	01h14
		Sets:	09h34	07h34
Pluto Magnitude	Sagittarius 14.2	Rises:	16h21	14h20
		Transits:	23h26	21h26
		Sets:	06h35	04h35

Notes to the table on page 2 above

Phase: In a telescope, the inner planets (Mercury, Venus and Mars) appear to us in phases, depending on the angle of the Sun's illumination, as does the Moon. The **angular diameter** is given in arc seconds ("). This is the apparent size of the object as we see it from Earth. To illustrate this point, consider the average binoculars through which we see about 7° of sky. Therefore, for example, Mars at 24" on 1st August would cover approximately 1/150th of the field of view.

Magnitude: we are accustomed to hearing stars described in terms of 'magnitude', for example Antares (in Scorpius) at +1.05 and the planet Jupiter, at magnitude -1.9. The latter is considerably brighter than Antares as the scale is 'inverse'; the brighter the object, the lower the number. A 'good' human eye on a clear night can see down to a magnitude of about +6.

Transit: When an object crosses the local **meridian** it is said to '**transit**'. The local meridian is an imaginary line from the horizon directly north passing overhead to the horizon directly south.

THE MOON

Lunar Highlight (information from the 2018 *Sky Guide Africa South*):

ALPHONSIS

Type: Crater with large, central peak.

Diameter: 121 km

Location: Just south of the centre of the moon

Notes: Named for 13th century King Alphonso X of Castile. Several tiny, dark-haloed craters can be seen on its floor; these are volcanic vents surrounded by deposits of dark ash. With Ptolemaeus and Arzachel, Alphonsus forms a magnificent trio of craters visible with binoculars

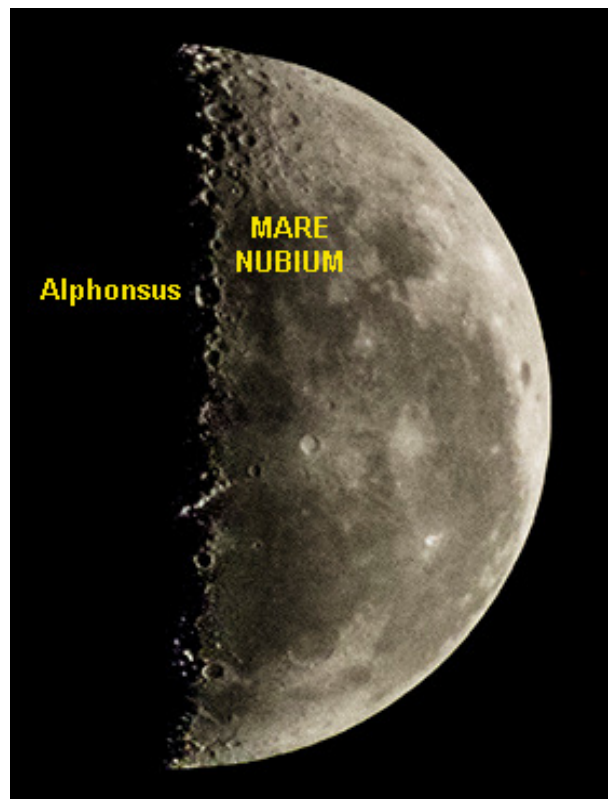
Best seen: At first quarter and 6 days after the Full Moon

Eclipses (visible from Southern Africa):

No eclipses, solar or lunar, are predicted for this month. (A partial solar eclipse is visible from parts of the northern hemisphere)

METEOR SHOWERS

No significant meteor showers are predicted for this month.



3. HIGHLIGHTS FROM THE SKY GUIDE (observed from Hermanus)

Date	Time	Item
1		Vesta stationary
2	22h18	Jupiter shadow/moon event ¹
4	20h18	Last quarter Moon
	01h17	Moon south of Uranus (4° 30')
6	20h40	Moon north of Aldebaran (1° 21')
7		Uranus stationary
		Pallas at conjunction
9		Moon furthest north (+20.8°)
		Mercury at greatest latitude south and at inferior conjunction
9 – 10	22h56	Jupiter multi-moon event ¹
9 – 12		<i>NATIONAL KAROO STAR PARTY</i> ²
10	20h06	Moon at perigee (358 082 km)
11	11h58	New Moon
		Moon near Mercury
12	04h55	Moon passes 4.3° SE of Regulus
		Comet 4P/Johnson at perihelion (period 6.5 years)
14	21h25	Moon passes 6° north of Venus ³
15	19h45	Venus, Spica, Jupiter and Arcturus surround a crescent Moon ³
17	19h00	Moon near Jupiter ³
		Venus at greatest eastern elongation (46°)
18	09h49	First quarter Moon
	19h34	Luna X visible
		Mercury stationary
21	11h15	Moon passes 3° north of Saturn
		Mars at greatest latitude south
22		Moon furthest south (-20.8°)
		Moon near Pluto
23	13h25	Moon at apogee (405 743 km)
26	13h56	Full Moon
		Mercury at greatest western elongation (18°)
27		Moon near Neptune
		Comet 125P/Spacewatch at perihelion (period 5.5 years)
28		Mars stationary
31		Moon near Uranus

¹ **Jupiter** moon events (from SGAS) – 2 August: the shadows of Io and Europa, as well as Io itself, move across Jupiter and remain visible for about 40 minutes. 9/10 August: Io and Europa are briefly visible together in front of Jupiter for less than 3 minutes. Io and 2 shadows are visible from 00h13.

² *NATIONAL KAROO STAR PARTY*: organised by ASSA Pretoria Centre members Johan Smit and Danie Barnado. Held on the Kambro Guest Farm, 20 km north of Britstown. Booking essential.
<http://www.pretoria-astronomy.co.za>

³ *Photo opportunities?*

4. STARGAZING

SUGGESTED OBSERVATION DAYS FOR AUGUST:

Unless *specifically targeting the moon*, may I suggest the most convenient dates to plan evening stargazing in **August** are 1st (moonrise 22h21) to 13th (moonset 20h41).



The next club stargazing evening is yet to be planned. Members will receive e-mail notification. Also, please check our website calendar on

<http://www.hermanusastronomy.co.za>

5. NO 'SCOPE REQUIRED (or Getting to Know The Constellations)

This month, we revisit the “Big Five” of the southern African skies. We are going to combine the last two sections, NO 'SCOPE REQUIRED and DEEP SKY HIGHLIGHT, as these five targets are all visible to the naked eye but also richly reward the telescope or binocular user.

Extracts from the ASSA website ...

What are the Big 5?

The Big 5 of the African Sky are five celestial objects that represent the best specimens of each type of deep-sky class: the **Southern Pleiades** (an open star cluster), **omega Centauri** (a globular cluster), the **eta Carinae Nebula** (a bright nebula), the **Coal Sack** (a dark nebula), and **the Milky Way** (a galaxy).

Where can I see the Big 5?

The Big 5 are visible anywhere from within the southern hemisphere. Two of the Big 5 lie in Carina, one lies in Centaurus, and one in Crux. The fifth – the Milky Way * – lies in a narrow band dividing the sky in half. The brightest parts of the Milky Way are in Sagittarius, Scutum, Norma and Carina. The accompanying table gives their celestial coordinates and basic data.

Basic stats of the Big 5 of the African Sky

Object names & catalogue designations	Type	RA & Dec (J2000.0)	Constellation
Southern Pleiades, IC 2602, Lac II.9	open cluster	10h 43.2m, - 64° 24.0'	Carina
eta Carinae Nebula, NGC 3372, Lac III.5/6	bright nebula	10h 44.3m, - 59° 53.4'	Carina
Coal Sack, Caldwell 99	dark nebula	12h 31.3m, - 63° 44.6'	Crux
omega Centauri, NGC 5139, Lac I.5	globular cluster	13h 26.8m, - 47° 28.6'	Centaurus

* The Milky Way encircles the entire sky so a single position cannot represent it. The last five rows of the table list the positions of the five brightest portions. The Galactic centre is in Sagittarius.

See the chart on the following page ...



Please keep in touch...

Don't forget to have a look at our excellent website, edited by Derek Duckitt.
<http://www.hermanusastronomy.co.za/>

Also...

ASSA website <http://assa.saa0.ac.za>

[ASSA Deep-Sky Section](#)

Whatsapp chat group: [074 100 7237]

[Official Big 5 of the African Sky web page](#)

[Official Big 5 Facebook group](#)

[ASSA Deep-Sky Section mailing list](#)

Contact ASSA

Get in touch with officers of the Society - we're real people with a passion for astronomy, [so contact us and let's talk!](#)

You can find us on [Facebook](#), [Twitter](#), the [ASSA Info mailing list](#) and the [ASSA Discussion mailing list](#).

Grateful thanks to the following, without whom this publication just would not be the same:

ASSA

Sky Guide Africa South 2018

Stellarium

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