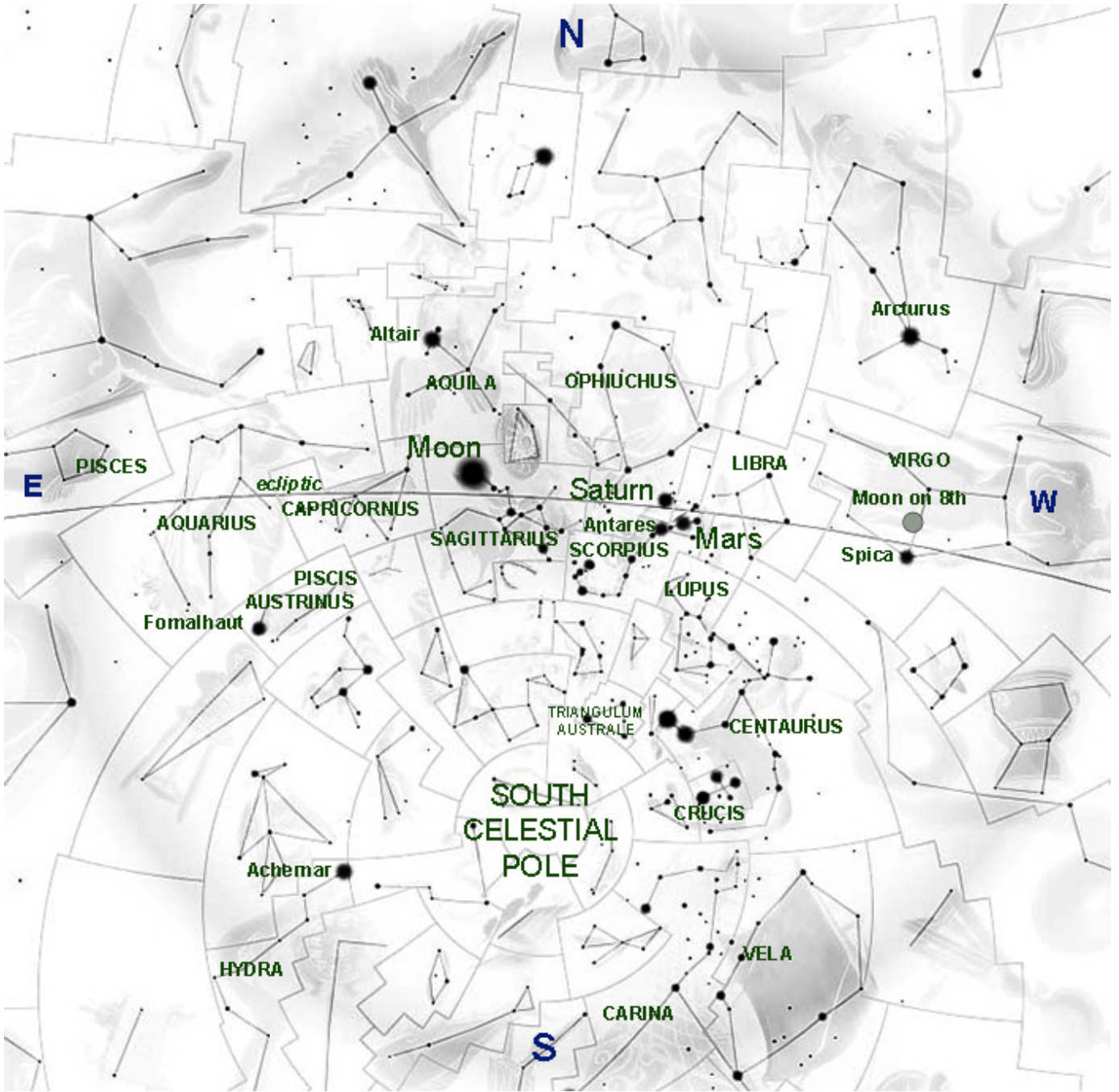




1. SKY MAPS

EVENING SKY MID AUGUST at 21^h00



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

2. THE SOLAR SYSTEM

<i>Sun & Planets</i>	<i>AUGUST 2016</i>		<i>1st</i>	<i>31ST</i>
Sun Constellation Length of day	Cancer to Leo 10h 27m to 11h 22m	Rises:	07h36	07h03
		Transits:	12h50	12h44
		Sets:	18h03	18h25
Mercury ϕ phase Constellation Magnitude	6" to 9" 72% to 24% Leo to Virgo -0.1 to +1.2	Rises:	08h48	07h42
		Transits:	14h21	13h53
		Sets:	19h54	20h04
Venus ϕ phase Constellation Magnitude	10" to 11" 96% to 92% Leo to Virgo -3.9	Rises:	08h30	08h09
		Transits:	13h52	14h11
		Sets:	19h14	20h14
Mars ϕ phase Constellation Magnitude	13" to 11" 87% to 85% Libra to Scorpius -0.8 to -0.3	Rises:	12h38	11h33
		Transits:	19h47	18h50
		Sets:	02h59	02h09
Jupiter ϕ Constellation Magnitude	32" to 31" Leo -1.7	Rises:	09h44	08h01
		Transits:	15h34	13h58
		Sets:	21h25	19h55
Saturn Diameter Constellation Magnitude	17" Ophiuchus +0.3 to +0.5	Rises:	13h34	11h36
		Transits:	20h34	18h37
		Sets:	03h39	01h42
Uranus ϕ Constellation Magnitude	4" Pisces +5.8 to +5.7	Rises:	23h53	21h53
		Transits:	05h.34	03h35
		Sets:	11h12	09h13
Neptune ϕ Constellation Magnitude	2" Aquarius +7.8	Rises:	20h28	18h27
		Transits:	02h56	00h53
		Sets:	09h20	0720
Pluto Constellation Magnitude	Sagittarius + 14.1 to 14.2	Rises:	16h04	14h03
		Transits:	23h07	21h07
		Sets:	06h14	04h15

'Beginner's guide' to the table 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** (ϕ) 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 19" on 1st August, would cover approximately 1/1300th 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. The planet **Jupiter**, at magnitude -1.9, 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.

PLANET VISIBILITY

Mercury	Low in the west after sunset
Venus	The "Evening Star", low in the west after sunset,
Mars	Visible in the evening sky
Jupiter	Visible in the evening sky becoming low in the west after sunset
Saturn	Visible in the evening sky
Uranus	Visible in the morning sky
Neptune	Visible throughout the night
Pluto	Initially visible throughout the night then visible in the evening sky

The War God's escape from the Scorpion has been foiled and Mars is drawn back into its tight grip, so close to Antares, the heart. However, is "Big Daddy" Saturn close enough to ensure Mars' survival? Don't miss our next enthralling episode!

THE MOON.

From the *Sky Guide Africa South*:

Alphonsus

Type: crater with large central peak **Size:** 121 km.

Location: near the centre of the moon **Best seen:** during first quarter or six days after full moon

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.

By the way, for beginners in Astrophotography (I am one), the picture on the right was taken on a relatively cheap 'bridge' camera. For this sort of photography, the bridge camera on a tripod is well suited, benefitting from huge zoom capabilities (in this case 30X). This is equivalent to 720mm for the familiar 35mm format. A DSLR with such a lens, unless coupled to a telescope (an additional expense in itself) would work out extremely expensive. So the budget conscious enthusiast still has opportunities.

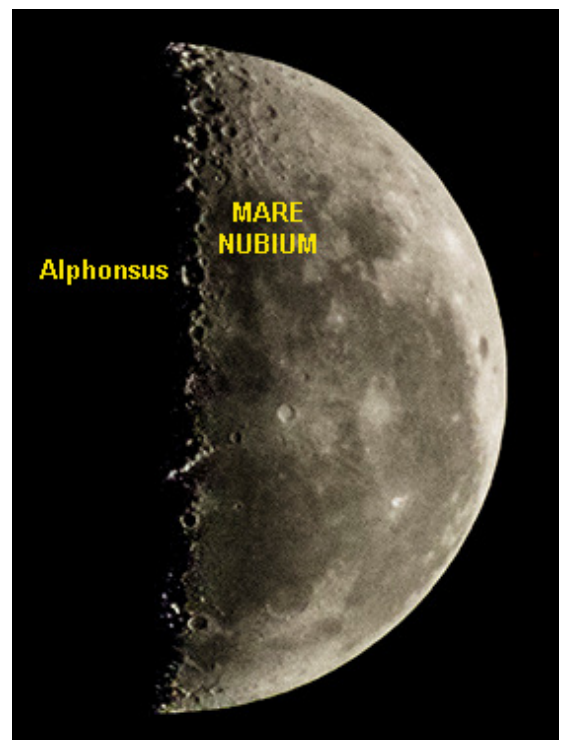
But it must be emphasised that good photos of nebulae, asterisms, etc., are a different matter.

Eclipses

No eclipses, solar or lunar, are visible from Hermanus in AUGUST 2016.

However: **The next solar eclipse will be an annular eclipse on Sept. 1, 2016.**

I shall disseminate more information on this and a lunar eclipse (16th September) as it becomes available.



METEOR SHOWERS

Name	Date & Time of Max	Duration	Radiant	ZHR	vel.	Observing Prospect
Piscis Australids	28 th July 21h30 to 05h00	19 July to 17 August	About 3° W of Fomalhaut (α PsA)	5	35	Past max
Southern δ Aquarids	29 th July 22h00 to 05h00	21 July to 21 August	About 13° NNW of Fomalhaut (α PsA)	25	42	Past max
α Capricornids	30 th July 20h00 to 04h00	15 July to 25 August	In Capricorn 33° E of Antares (α Sco)	5	25	Past max

Key to the table above:

ZHR – zenithal hourly rate

vel. - velocity in km per second

For more details regarding meteor watching, please see
the *Sky Guide Africa South (SGAS)*, pp 86- 87

3. AUGUST HIGHLIGHTS FROM THE SKY GUIDE

Date	Time	Item
2	22h45	New Moon
		Comet 9P/Tempel at perihelion
8		Moon to Spica 5.5° south
10	20h21	1st quarter Moon
	02h05	Moon at apogee (404 300 km)
13		Saturn stationary
14	15h05	Moon furthest south (-18.5°)
16	22h59	Mercury at greatest elongation (27.4° east)
18	11h27	Full Moon
19		Moon to Neptune 1.0° south
		Comet 43P/Wolf-Harrington at perihelion
20	07h34	Mercury to Jupiter 3.8° north
22	03h20	Moon at perigee (387 000 km)
		Moon to Uranus 2.8° north
		Jupiter to Mercury 4.0° south
24	07h09	Mars to Antares 1.8° north
25	05h41	Last quarter Moon
	18h21	Moon to Aldebaran 0.2° south
	03h11	Mars to Saturn 4.3° north
27	23h53	Venus to Jupiter 0.1° north
28	22h09	Venus to Mercury 5° south
30		Mercury stationary
31		Moon to Regulus 1.6° north
		Comet 144P/Kushida at perihelion

4. STARGAZING

Although this event is aimed at the last Friday of each month, July stargazing has provisionally been postponed to Friday 5th August, again subject to the weather.



Initiated by Karin de Bruin, this is intended not only to offer the opportunity of a group stargazing evening but to guide interested members in the use of binoculars and telescopes. In addition, there will be instruction on the preparation of observation reports which may be submitted to ASSA, thereby making a significant contribution to national amateur astronomy in Southern Africa. Observation challenges will be set each month for beginners, intermediate and advanced stargazers.

The August stargazing evening is currently scheduled for Friday 5th August.

The venue: NGK, Onrus

Time: 19h00 (7 pm)

Please join us for another fun-filled and instructive evening. We shall be serving hot dogs. The cost will be R40 per person.



BEST OBSERVATION DAYS

The nights for best general observation will be those avoiding the glare of the moon unless, of course, one is specifically targeting the moon! I offer you, therefore, *my* opinion of the most suitable evenings to plan your stargazing for the month:

1st to 5th AUGUST (moonset 20h48) 21th (moonrise 21h48) to 31st
AUGUST

5. DEEP SKY

I have attached files with details of "The Big Five".



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 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 also 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 could not have materialised:

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Sky Guide Africa South 2016

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