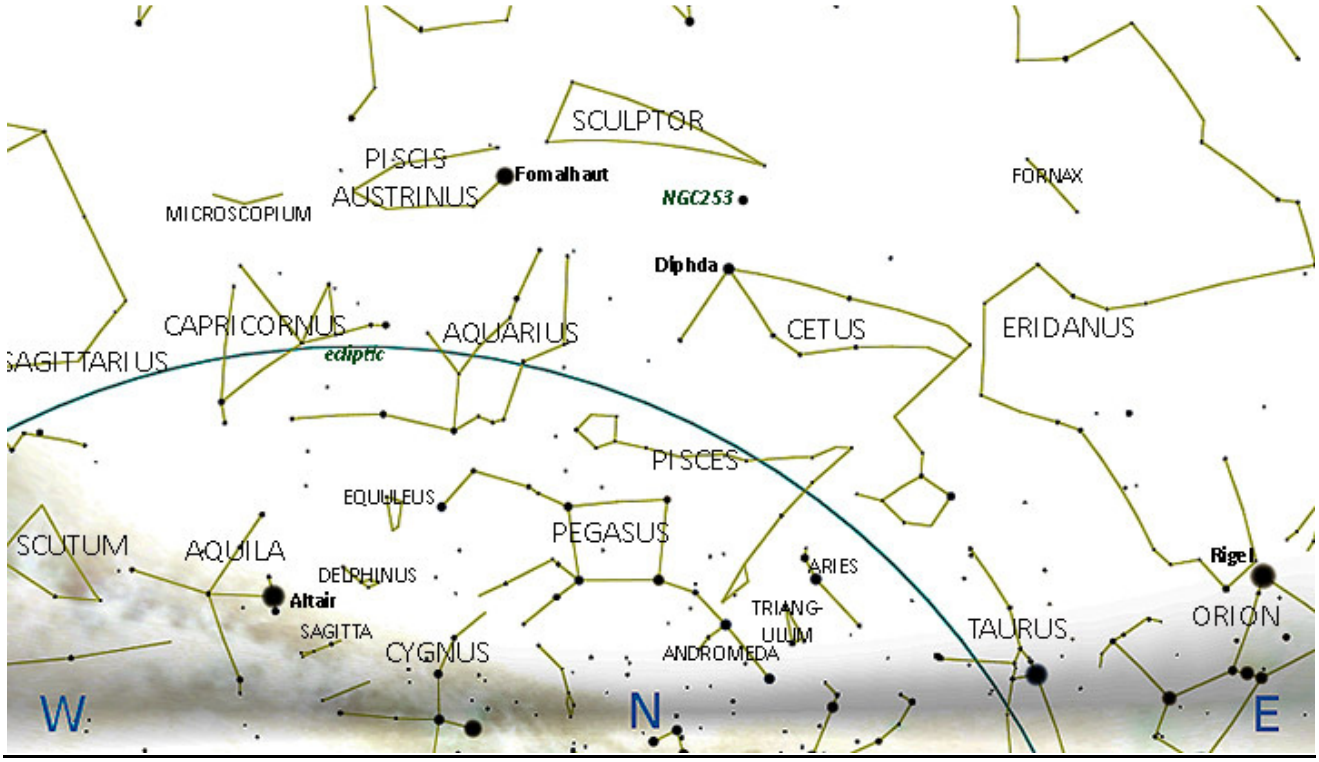
Hermanus
Astronomy Centre

Sky Maps

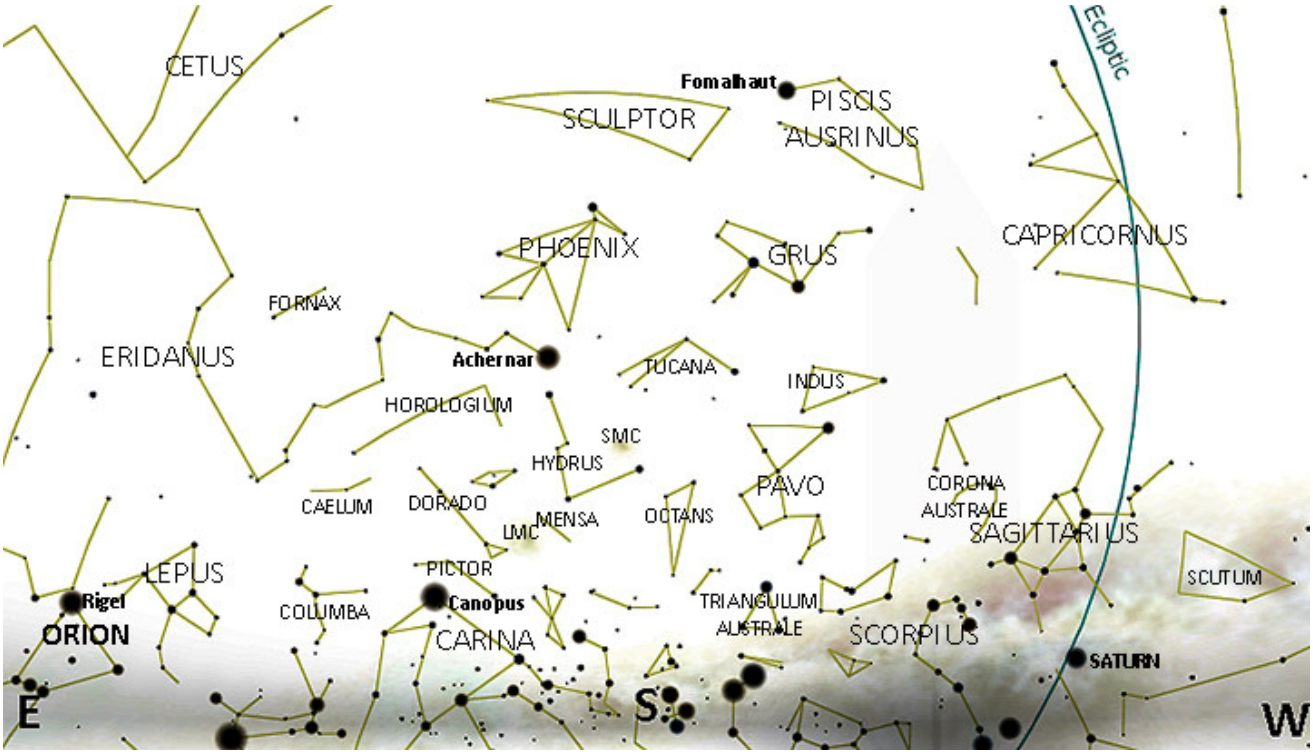
NOVEMBER 2017

1. SKY CHARTS

EVENING SKY MID NOVEMBER at 21h00 (NORTH DOWN)



EVENING SKY MID NOVEMBER at 21h00 (SOUTH DOWN)



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

2. THE SOLAR SYSTEM

PLANET VISIBILITY

Mercury	Visible after sunset
Venus	The "Morning Star"
Mars	Visible low in the east before sunrise
Jupiter	Initially too close to the sun becoming visible in the early morning
Saturn	Visible in the early evening
Uranus	Visible throughout the night
Neptune	Visible in the evening
Pluto	Visible in the evening

Sun & Planets	*NOVEMBER 2017*		*1st*	*30th*
Sun Constellation Length of day	Libra to Ophiuchus 13h30 to 14h15m	Rises: Transits: Sets:	05h42 12h27 19h12	05h25 12h32 19h40
Mercury Constellation Magnitude phase	φ 5" to 8" Libra to Sagittarius -0.4 to +0.0 92% to 41%	Rises: Transits: Sets:	06h22 13h23 20h24	06h42 13h59 21h16
Venus Constellation Magnitude phase	φ 10" Virgo to Libra -3.9 96% to 99%	Rises: Transits: Sets:	05h02 11h25 17h48	04h55 11h52 18h50
Mars Constellation Magnitude phase	φ 4" Virgo +1.8 to +1.7 97% to 95%	Rises: Transits: Sets:	04h18 10h24 16h30	03h12 09h37 16h03
Jupiter Constellation Magnitude	Φ 31" Virgo to Libra -1.7	Rises: Transits: Sets:	05h36 12h11 18h47	04h00 10h41 17h22
Saturn Constellation Magnitude	φ 15" Ophiuchus to Sagittarius +0.6 to +0.5	Rises: Transits: Sets:	08h29 15h36 22h43	06h48 13h55 21h03
Uranus Constellation Magnitude	φ 4" Pisces +5.7	Rises: Transits: Sets:	17h59 22h35 05h15	16h01 21h37 03h18
Neptune Constellation Magnitude	φ 2" Aquarius +7.8 to 7.9	Rises: Transits: Sets:	14h28 20h52 03h20	12h33 18h57 01h25
Pluto Constellation Magnitude	Sagittarius + 14.3"	Rises: Transits: Sets:	10h08 17h13 00h22	05h17 15h22 22h27

Notes to the table above on next page...

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 7º of sky. Therefore, for example, Mars at 19” on 1st May 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 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 2017 *Sky Guide Africa South):*

Copernicus

Type: Crater with three central mountains rising 1.2 km above the crater floor.

Diameter: 95 km.

Notes: Young and isolated formation with a large so-called “starburst” ray system (some of which are up to 800 km long) which can be seen with the naked eye.

Best seen: Two days after first quarter and one day after last quarter.

Age: about 3.6 billion years

Location: North-west quadrant.

Eclipses (visible from Southern Africa):
No eclipses, solar or lunar, are predicted for this month.

METEOR SHOWERS

Name	*Date & Time of Max*	*Duration*	*Radiant*	*ZHR*	*velocity*	*Observing Prospect*
Northern Taurids	12 November 21h30 – 03h30	1 October – 25 November	3º east of **Pleiades**	5	31	Good
Leonids	17 November 03h00 – 04h00	12 - 21 November	3º north-west of **Algieba (γ Leo)**	5-10	70	New Moon
α Monocerotids	21 November 23h00 – 04h00	15 – 25 November	In Canis Minor 7º south of **Procyon**	5-50	65	Favourable

3. HIGHLIGHTS FROM THE SKY GUIDE

Date	Time	Item
2		**Venus** near **Spica**
3		**Moon** near **Uranus**
4	07h23	**Full Moon**
6		**Moon** at perigee (361 437 km) and near **Aldebaran**
8		**Moon** furthest north (+19.8º)
10	22h36	**Last quarter moon** and near **Beehive Cluster** (M44)
11		**Comet 183P/Korlević-Jurić** at perihelion (3.87 AU, 9.5 years)
12		**Mercury** near **Antares**
13	10h20	**Venus** and **Jupiter** in conjunction (16' apart, elongation 14º west)
15		**Moon** near **Mars**
16		Comets at perihelion: **24P/Schaumasse** (1.21 AU, 8.3 years) and
		62P/Tsuchinshan (1.38 AU, 6.4 years)
17		**Moon** near **Venus** and **Jupiter** [1]
18	13h42	**New Moon.**
		Mercury greatest latitude south
20		**Moon** near **Mercury** [1]
		Comet 236P/LINEAR at perihelion (1.84 AU, 7.2 years)
21		**Moon** at apogee (406 131 km)
		Moon near **Saturn** [1]
22		**Moon** furthest south (-20.0º)
		Neptune stationary
24		**Mercury** at maximum eastern elongation (22.0º)
26	19h03	**First quarter Moon**
28		**Mercury** near **Saturn** [1]
30		**Moon** near **Uranus**
		Mars near **Spica**

[1] In fact, Moon, Venus, Mercury, Saturn, Jupiter and Sol are all bunched up together in the same little corner of the sky. Astrologers, what does this portend?

4. STARGAZING

SUGGESTED OBSERVATION DAYS FOR NOVEMBER:

Unless specifically targeting the moon, I suggest the most convenient dates to plan evening stargazing in November are 7th (moonrise 22h57) to 19th (moonset 20h17).

The next club stargazing evening is planned for Friday 10th November (with Saturday 11th as a weather back-up).

More information regarding venue, etc., will be posted in due course to members' e-mail addresses and on our website.

http://www.hermanusastronomy.co.za

DEEP SKY HIGHLIGHT (from the Sky Guide Africa South)
Caroline's Galaxy (NGC 253)

(See page 1. NORTH DOWN chart, in Sculptor about 7.3º south of **Diphda** (β Cet)**)**

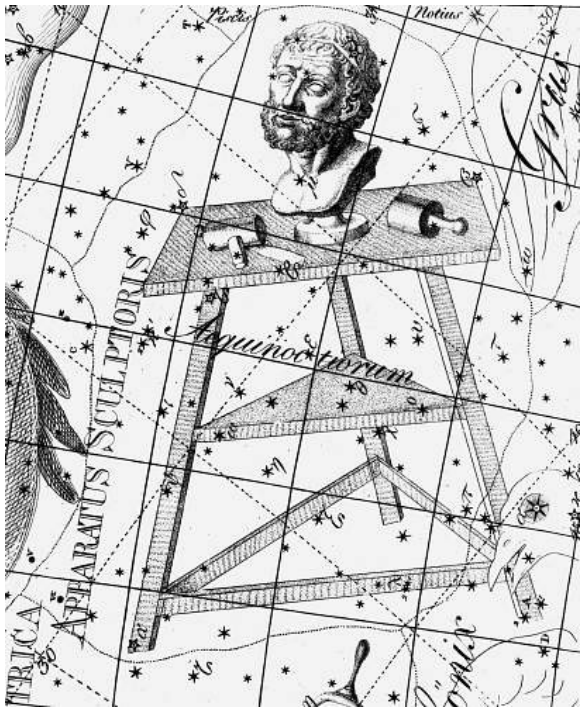
To quote from the Sky Guide:

This beautiful edge-on spiral galaxy is visible in binoculars, even under poor skies, as a ghostly slash of grey light with a gently brighter centre. A modest-sized telescope under dark skies shows that it extends for at least half a degree (the angular diameter of the Moon). NGC 253 was discovered from England by Caroline Herschel, sister of the famous astronomer William Herschel. Her discovery galvanised Herschel to embark on his own monumental programme of discovering new nebulae. NGC 253 is a spiral galaxy with two wide arms spanning some 75 000 light years. It is the third most luminous galaxy in the galactic neighbourhood and has an active nucleus.

Sculptor
The sculptor

From Ian Ridpath's Star Tales

Genitive: Sculptoris
Abbreviation: Scl
Size ranking: 36th
Origin: The 14 southern constellations



of Nicolas Louis de Lacaille

A faint constellation south of Cetus and Aquarius, invented by the French astronomer Nicolas Louis de Lacaille during his mapping of the southern skies in 1751–52. His original name for it, given on his planisphere of 1756, was l'Atelier du Sculpteur, the sculptor's studio. It consisted of a carved head on a tripod table, with the artist's mallet and two chisels on a block of marble next to it. On Lacaille's 1763 planisphere the title was Latinized to Apparatus Sculptoris.

Johann Bode in 1801 dispensed with the block of marble and moved the sculptor's tools to the top of the table along with the carved bust, as depicted here. In place of the marble block he created the constellation Machina Electrica, but that figure never achieved wide currency.

In 1844 the English astronomer John Herschel proposed shortening the name to Sculptor. This suggestion was adopted by Francis Baily in his British Association Catalogue of 1845, and the constellation has been known simply as Sculptor ever since.

Sculptor is the largest of Lacaille's 14 inventions, as defined by the modern constellation boundaries, but its stars are only of fourth magnitude and fainter; none of them is named.

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.saao.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.

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