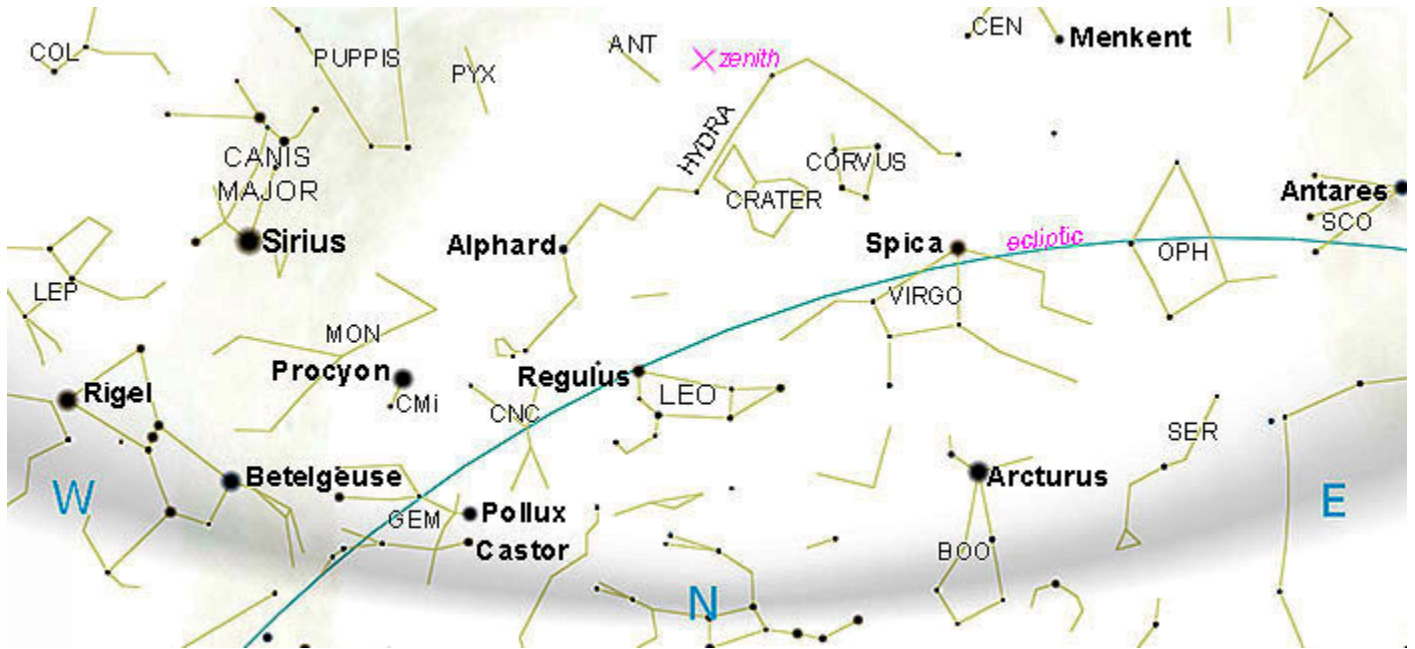


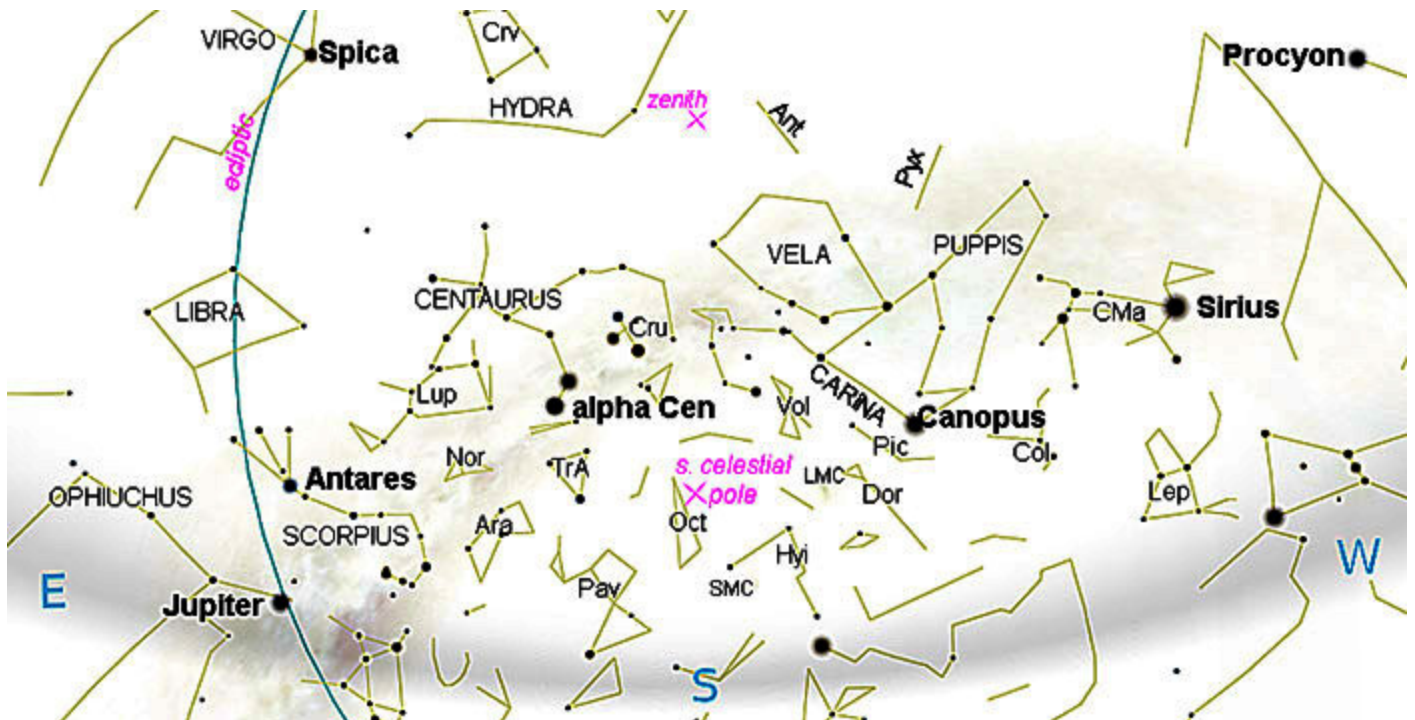


1. SKY CHARTS

EVENING SKY 1st MAY at 21^h00 (NORTH DOWN)



EVENING SKY 1st MAY at 21^h00 (SOUTH DOWN)



2. HIGHLIGHTS FROM THE SKY GUIDE

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

Date	Time	Item
2		Moon near Venus
		Moon near Vesta
3 to 5		<i>9TH RIGHTS FARM STAR PARTY</i> ¹
3		Moon near Mercury
4		Moon near Uranus
5	00h46	New Moon
6		Moon near Aldebaran
8		Moon near Mars
		Mercury near Uranus
9		Moon furthest north (+22.2°)
10		Venus at greatest latitude south
11	18h25	Luna-X visible (see page 4, THE MOON)
12	03h12	First quarter Moon
		Moon near Regulus
13	23h54	Moon at perigee (369,015 Km)
17		Mars at northernmost declination for the year (+24.6°)
18	23h11	Full Moon
		Venus near Uranus
19		Moon near Ceres
20		Moon near Jupiter
21		Mercury at superior conjunction
22	22h17	Moon (85%) occults Saturn
		Moon furthest south (-22.3°)
23	06h21	Moon occults Pluto
24		Mercury at perihelion
25		<i>INTERNATIONAL TOWEL DAY</i> ²
26	18h34	Last quarter Moon
	15h28	Moon at apogee (404,133 Km)
27		Moon near Neptune
28		Ceres at opposition
30	30	<i>KAROO NATIONAL STAR PARTY</i> (ends 2 nd June) ³
31		Moon near Vesta
		Moon near Uranus

¹ *9TH RIGHTS FARM STAR PARTY* will be held 3 – 5 May near the Willem Pretorius Game Reserve between Senekal and Ventersberg. Contact Wessel du Preez (082 921 4304).

² From Douglas Adams's **The Hitchhiker's Guide To The Galaxy** – A towel. “Just about the most massively useful thing any interstellar Hitchhiker can carry. Partly it has great practical value. ... More importantly, a towel has immense psychological value.” May 25, 2016

³ *KAROO NATIONAL STAR PARTY* – is organised by ASSA Pretoria Centre members Johan Smit and Danie Banardo. Held from 30th May to 2nd June on the Kambro guest farm, 20 Km north of Britstown. Booking essential [<http://www.pretoria-astronomy.co.za>].

3. THE SOLAR SYSTEM

MAY 2019			1 st May	1 st June	Visibility
Sun Length of day	Aries to Taurus 10h44 to 10h00	Rises:	07h18	07h41	Never look directly at the sun without suitable eye protection!
		Transit:	12h40	12h41	
		Sets:	18h02	17h41	
Mercury Magnitude Phase Diameter	Pisces to Taurus -0.3 to -1.1 76% to 86% 6" to 5"	Rises:	05h39	08h46	Low in the east before sunrise to low in the west after sunset
		Transit:	11h27	13h36	
		Sets:	17h14	18h25	
Venus Magnitude Phase Diameter	Pisces to Aries -3.9 88% to 94% 12" to 10"	Rises:	05h04	06h03	Low in the east before sunrise
		Transit:	10h57	11h19	
		Sets:	16h50	16h35	
Mars Magnitude Phase Diameter	Taurus to Gemini +1.6 to +1.8 96% to 98% 4" to 4"	Rises:	10h33	09h59	Low in the west after sunset
		Transit:	15h25	14h51	
		Sets:	20h16	19h42	
Jupiter Magnitude Diameter	Ophiuchus -2.5 to -2.6 43" to 46"	Rises:	20h28	18h14	Throughout the night
		Transit:	03h41	01h26	
		Sets:	10h49	08h34	
Saturn Magnitude Diameter	Sagittarius +0.5 to +0.3 17" to 18"	Rises:	22h28	18h14	Late evening to throughout the night
		Transit:	05h36	03h31	
		Sets:	12h41	10h36	
Uranus Magnitude Diameter	Aries +5.9 3"	Rises:	06h42	04h49	Too close to the sun then in the morning
		Transit:	12h11	10h15	
		Sets:	17h39	15h42	
Neptune Magnitude Diameter	Aquarius +7.9 2"	Rises:	03h08	01h08	Morning
		Transit:	09h25	07h25	
		Sets:	15h42	13h42	
Pluto Magnitude	Sagittarius +14.3	Rises:	22h39	20h35	Late evening to throughout the night
		Transit:	05h48	03h45	
		Sets:	12h53	10h51	

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.

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 (for example) magnitude -2.5. 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 (through *zenith*, see charts on page 1) to the horizon directly south.

THE MOON

LUNA X

Type: Visible feature

Best seen: 11th May 2019, 18h25 to 20h25. With sunset at 17h40, this should be quite possible. The next reasonable opportunity will be on 4th November 2019.

Notes: The line separating the light and dark parts of the moon is known as the “terminator”. Where it crosses terrain of high relief a complex interplay of features lit by the sun and those still bathed in deep shadow can result. These high-contrast vistas are sometimes known as the “clair-obscur effects” and have been given evocative names including Cassini’s Moon Maiden and Gruithuisen’s Lunar City.

Around the time of first quarter, as the terminator sweeps across the lunar landscape along more or less selenographic longitude 0°, a particularly striking clair-obscur effect can be seen:

The **Lunar X** (also known as the **Werner X**) is a clair-obscur effect in which light and shadow creates the appearance of a letter ‘X’ on the rims of the craters Blanchinus, La Caille and Purbach.

Luna X is a striking feature and can be viewed even with binoculars.

Luna location: lat. -25.8°, long +1.1°



(Image courtesy of Bennie Kotze)

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
η Aquariids	6 th May 03h30 to 05h30	21 st April – 12 th May	About 15° above the ENE horizon at 03h30	60	65	Good

Guide 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), pages 86- 87.

4. STARGAZING

SUGGESTED OBSERVATION DAYS

Unless *specifically* targeting the moon, may I suggest the most convenient dates to plan evening stargazing are from **25th April** (moonrise 23h09) to **8th May** (moonset 20h57), then from **25th May** (moonrise 23h42) to **6th June** (moonset 20h49).

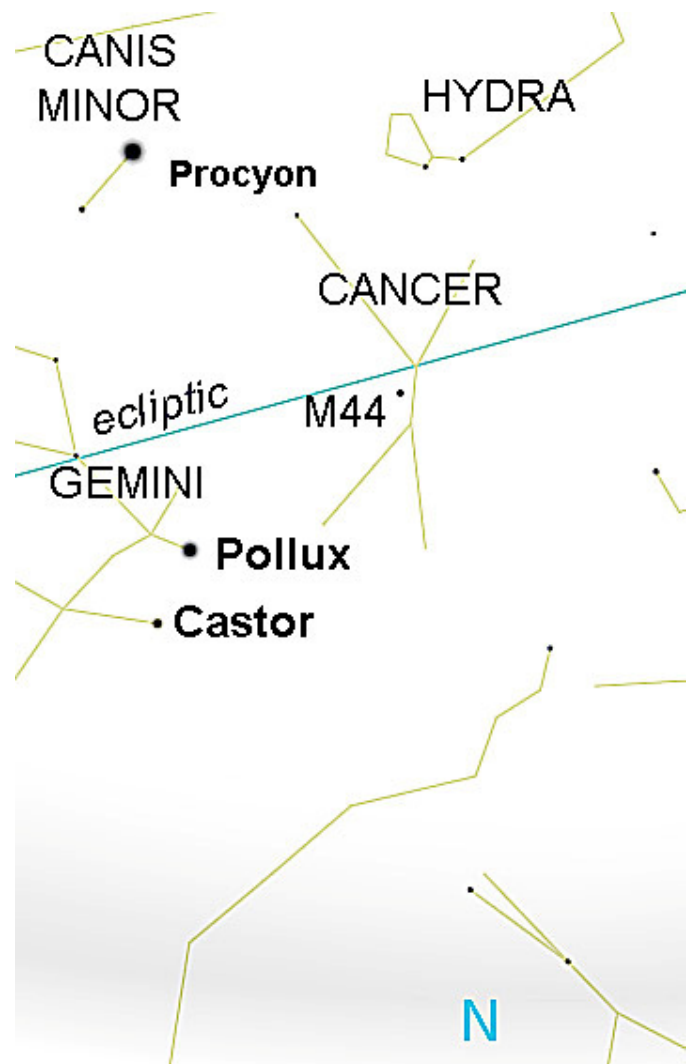


The next club stargazing evening is scheduled for 3rd or 4th May. Members will receive updated information by e-mail (and, remember, it's always weather dependant!). Please check our website calendar closer to the date for confirmation and venue. (<http://www.hermanusastronomy.co.za>)

DEEP SKY HIGHLIGHTS

PRAESEPE or The BEEHIVE CLUSTER (M44, NGC 2632)

<u>Description</u>	Open cluster
<u>Distance</u>	About 577 LY
<u>Location</u>	In Cancer, about 15° SE of Pollux and 21° NNE of Procyon
<u>Guide stars</u>	Pollux (σ Gem) and Procyon (α CMi)
<u>J2000 coordinates</u>	8h 40m 6s / +19° 59' 0"
<u>Visibility</u>	
<u>Naked eye</u>	A faint, fuzzy spot
<u>Binoculars & Telescopes</u>	At least 75 stars can be resolved. FOV about 95'



Notes

The cluster's age, estimated at 600 to 730 million years, and proper motion coincide with those of the Hyades open cluster, suggesting that both share a similar origin.

The cluster's core radius is estimated at 11.4 LY with the half-mass of the cluster (the radius from the core that contains half the total mass) at 12.7 LY.

Altogether, the Beehive probably contains at least 1000 members totalling 500 to 600 solar masses with 68% being M dwarfs, 30% sun-like F, G and K stars and about 2% bright class A stars

Cancer
The crab

Genitive: Cancri
Abbreviation: Cnc
Size ranking: 31st
Origin: One of the 48 Greek constellations listed by Ptolemy in the Almagest
Greek name: Καρκίνος (Karkinos)

The crab is a minor character in one of the labours of Heracles (the Greek name for Hercules). While Heracles was fighting the multi-headed monster called the Hydra in the swamp near Lerna, the crab emerged from the swamp and added its own attack by biting Heracles on the foot. Heracles angrily stamped on the crab, crushing it. For this modest contribution to history, we are told that the goddess Hera, the enemy of Heracles, put the crab among the stars of the zodiac. Its name in Greek was Καρκίνος (Karkinos), or Carcinus in Latin transliteration.

Fittingly enough for such a minor character it is the faintest of the zodiacal constellations, with no star brighter than fourth magnitude. The star Alpha Cancri is named Acubens, from the Arabic meaning 'claw'. As Ptolemy described it in the Almagest, this star lies on the southern claw of the crab; the northern claw is marked by Iota Cancri. Beta and Mu Cancri lie on the southern and northern rear legs, respectively.

The Asses and the Manger

Gamma and Delta Cancri were known to the Greeks as "Ovoi" (Onoi), the asses; we know them by their Latin names, Asellus Borealis and Asellus Australis, the northern ass and southern ass, and they have their own legend. According to Eratosthenes, during the battle between the gods and the Giants that followed the overthrow of the Titans, the gods Dionysus, Hephaestus, and some companions came riding on donkeys to join the fray. The Giants had never heard the braying of donkeys before and took flight at the noise, thinking that some dreadful monster was about to be unleashed upon them. Dionysus put the asses in the sky, either side of the cluster of stars which the Greeks called Φάτνη (Phatne), the Manger, from which the asses seem to be feeding. Ptolemy described Phatne as 'the nebulous mass in the chest'. Astronomers now know this star cluster by its Latin name Praesepe, but it is popularly termed the Beehive – praesepe can mean both 'manger' and 'hive'.

Tropic of Cancer

The tropic of Cancer is the latitude on Earth at which the Sun appears overhead at noon on the summer solstice [northern hemisphere], June 21. In the time of the ancient Greeks the Sun lay among the stars of Cancer on this date, but the wobble of the Earth on its axis called precession has since moved the summer solstice from Cancer through neighbouring Gemini and into Taurus.

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.sao.ac.za>

[ASSA Deep-Sky Section](#)

Whatsapp chat group: [074 100 7237]

[MNASSA http://assa.sao.ac.za/about/publications/mnassa/](http://assa.sao.ac.za/about/publications/mnassa/)

[Nightfall https://assa.sao.ac.za/?s=Nightfall](https://assa.sao.ac.za/?s=Nightfall)

[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!](#)

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