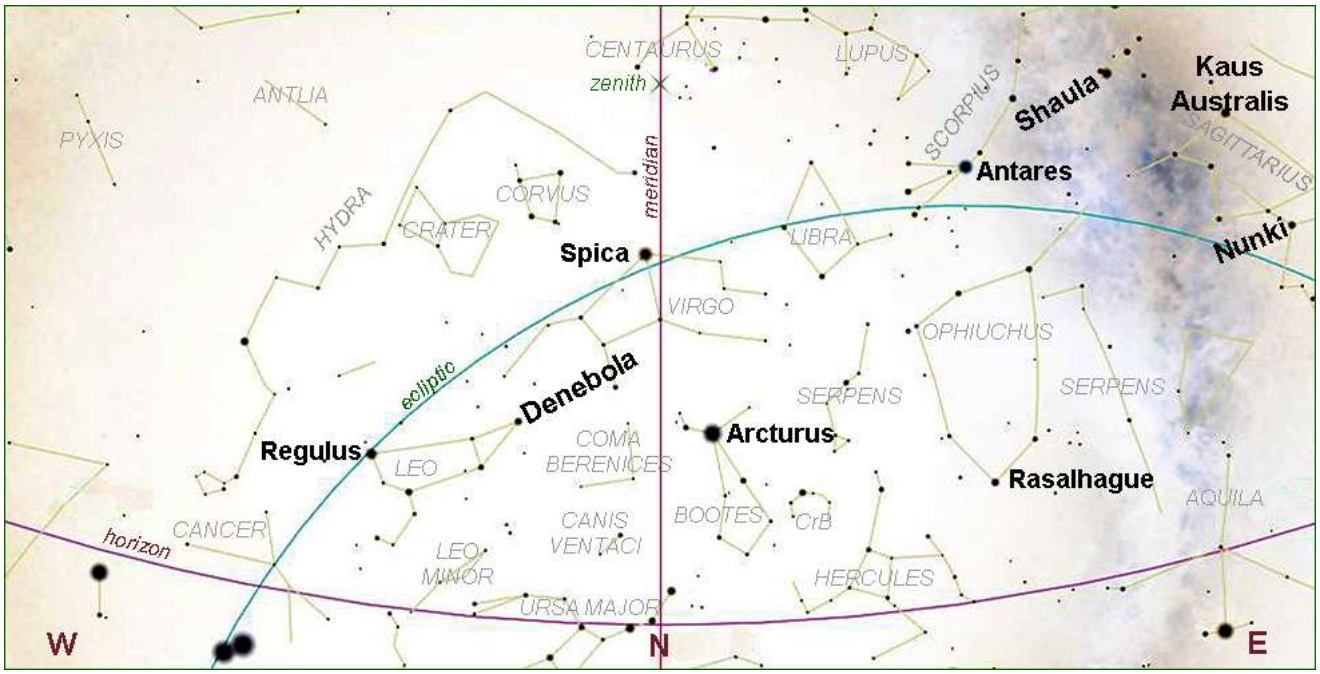
SKYNOTES

Hermanus

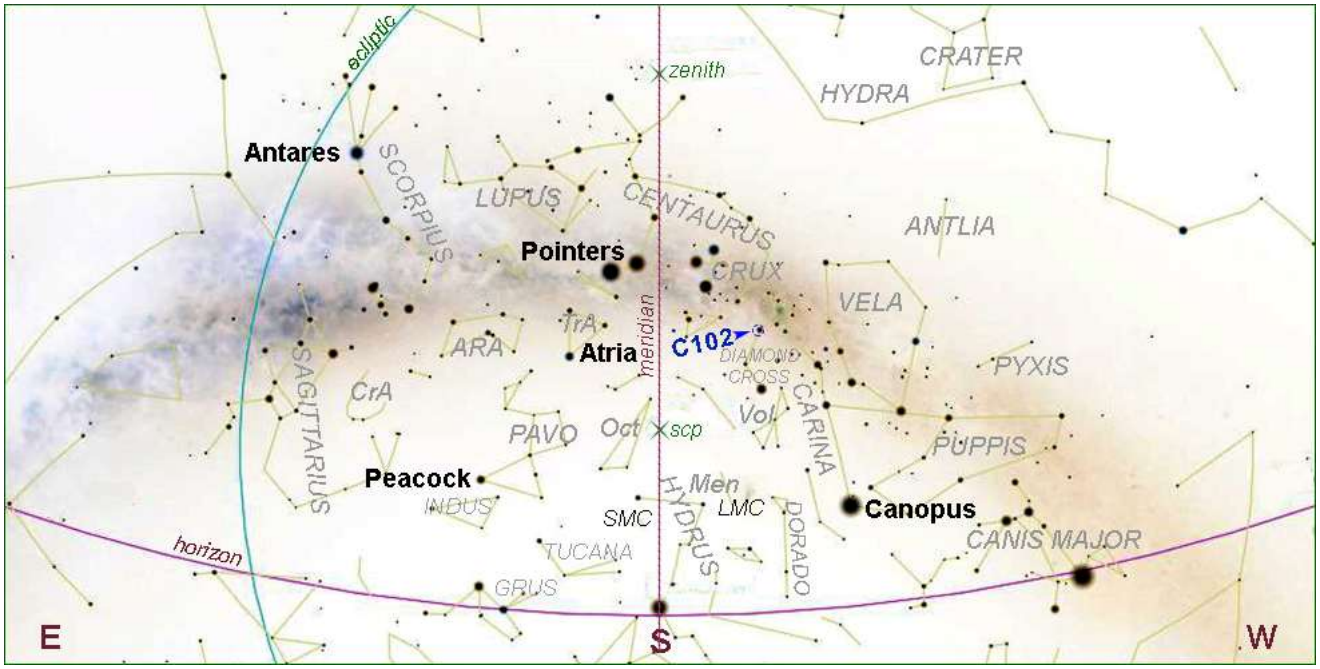
JUNE 2026

SKY CHARTS

EVENING SKY – JUNE 11th at 21h00 (NORTH DOWN)



EVENING SKY – JUNE 11th at 21h00 (SOUTH DOWN)



SUGGESTED EVENING OBSERVATION WINDOW

(Lunar observations notwithstanding)

Date		***Moon***	*Dusk end*
June5 to	**Rise**	**22h08 (78%)**	**19h09**
June18	**Set**	**21h35 (13%)**	**18h10**

THE SOLAR SYSTEM

JUNE HIGHLIGHTS based on the 2026 SKY GUIDE

(PLEASE NOTE: all events are as observed from **HERMANUS**, Western Cape, South Africa)

ALMANAC

Day	*Time*	*Item*
2		**Moon** occults **phi Sgr**
		Moon occults **Nunki** (σ Sgr)
5		**Callisto** 7.3' from **Jupiter**
7		**Venus** near **Pollux**
		Titan 2.7' from **Saturn**
8	12h00	**Last Quarter Moon**
9	18h05	**Moon** near **Neptune**
	21h59	**Venus** near **Jupiter**
10	09h30	**Moon** near **Saturn**
11-16		*12TH FREE STATE STAR PARTY*
12	20h38	**Moon** near **Mars**
13		**Moon** near **the Pleiades** (M 45)
	19h31	**Moon** near **Uranus**
14		**Callisto** 7.1' from **Jupiter**
		Titan 2.7'from **Saturn**
15	04h54	**New Moon**
16	22h12	**Moon** near **Mercury**
17	09h41	**Moon** near **Jupiter**
		Moon near **Pollux**
17-19		**Moon** near **Venus** at noon
18		**Moon** near **the Beehive** (M 44)
19		**Moon** occults **Regulus**
		Moon near **Venus** (occultation)
20		**Mercury** near **NGC 2420**
		Venus near **the Beehive** (M44)
21	23h55	**First Quarter Moon**
22		**Callisto** 7.1' from **Jupiter**
23		**Moon** near **Spica**
		Titan 2.7' from **Saturn**
25		**Mercury** near **Jupiter**
27		**Moon** occults **Antares**
28		**Mars** near **the Pleiades**
30	01h57	**Full Moon**
		Callisto 6.9' from **Jupiter**
		Titan 3.2' from **Saturn**
30		*INTERNATIONAL ASTEROID DAY*

THE GALILEAN MOONS – see page 26 of the **Sky Guide 2026** for full details of Galilean moon events.

EPHEMERIS

Day	*Time*	*Item*
1	06h32	**Moon** at apogee (406369 km)
	16h59	**Moon** southernmost (–27°59')
7	08h19	**Moon** at ascending node
9		**Mercury** at dichotomy
15	014h18	**Moon** at perigee (357 196 km)
	05h29	**Moon** northernmost (+27°59')
15		**Mercury** at eastern elongation (24.5°)
19	19h57	**Moon** at descending node
21	10h25	*JUNE SOLSTICE*
28	09h11	**Moon** at apogee (406 267 km)
	22h06	**Moon** southernmost (–27°59')
29	03h58	**Mercury** stationary

SOLAR SYSTEM VISIBILITY

2026 JUNE 11

Sun Length of day	Taurus 09 hours 53 minutes	Rise: Transit: Set:	07h46 12h43 17h39	**Never look at the sun without *SUITABLE EYE PROTECTION!***
Mercury Magnitude Phase Diameter	Gemini +2.0 47% 7”	Rise: Transit: Set:	09h36 14h28 19h19	Low in the west after sunset
Venus Magnitude Phase Diameter	Gemini -4.0 76% 14”	Rise: Transit: Set:	10h28 15h25 20h22	Evening
Mars Magnitude Phase Diameter	Aries +1.3 96% 4”	Rise: Transit: Set:	05h09 10h25 15h40	Morning
Jupiter Magnitude Diameter	Gemini -1.8 32”	Rise: Transit: Set:	10h16 15h16 20h17	Evening
Saturn Magnitude Diameter	Pisces +0.8 17”	Rise: Transit: Set:	02h23 08h16 14h10	Morning
Uranus Magnitude Diameter	Taurus +5.8 3”	Rises: Transit: Set:	06h24 11h27 16h29	Low in the east before sunrise
Neptune Magnitude Diameter	Pisces +7.9 2”	Rise: Transit: Set:	01h42 07h42 13h43	Morning
Pluto Magnitude	Capricornus +14.5	Rise: Transit: Set:	20h47 04h00 11h10	All night

Phases: 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 observed **angular diameter** is given in arc seconds.

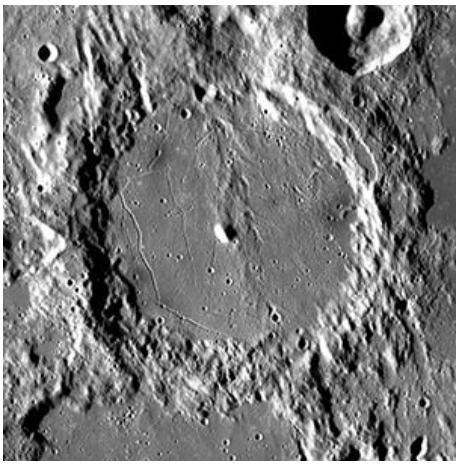
Transit: When an object crosses the **local meridian**, it is said to ‘transit’. The local meridian is an imaginary line from the horizon directly north passing overhead through *zenith* to the horizon directly south.

Magnitudes: We are accustomed to hearing the brightness of stars described in terms of ‘magnitude’. But, for example, the star Sirius, at magnitude -1.4, is considerably brighter than the star Antares (in Scorpius) at +1.05. The scale is ‘inverse’; the brighter the object, the lower the value. A ‘good’ human eye on a clear night can see a star down to a magnitude of about +6.

THE MOON

Crater ALPHONSUS

the image to right is north down



Location: eastern Mare Nubium, west of the Imbrian Highlands and slightly overlapping the crater Ptolemaeus to the north.

Best seen: **Last quarter** (7th) or at **First quarter** (21st).

Type: ancient impact crater, dating from the pre-Nectarian era*. It is 118 km in diameter with steep decayed walls and a 1.5 km tall pyramidal central mountain. Features on its floor include several craterlets, hills and Rimae Alphonsus. A low ridge system of deposited ejecta bisects the crater floor and includes the steep central peak designated Alphonsus Alpha (α). It is not volcanic in origin but is made of anorthosite like the lunar highlands. The floor is fractured by an elaborate system of rilles and contains four or five smaller craters surrounded by a symmetric darker halo. These dark-halo craters are cinder cone-shaped and are believed by some to be volcanic in origin, although others think they were caused by impacts that excavated darker mare material from underneath the lighter lunar regolith.

Transient lunar phenomena: Alphonsus is one of the sites noted for transient lunar phenomena, as glowing red-hued clouds have been reported emanating from the crater. On October 26, 1956, the lunar astronomer Dinsmore Alter noted some blurring of the rilles on the floor of Alphonsus in the photographs he took in violet light. The same blurring did not occur in the infrared photographs he took at the same time. However, few professional astronomers found this evidence of volcanic activity on the Moon very convincing. One astronomer who was intrigued by Alter's observations was Nikolai Kozyrev from the Soviet Union. In 1958 while Kozyrev was looking for volcanic phenomena on the moon, he observed the formation of a mist-like cloud within Alphonsus. The spectrum of the area had been measured at this time and displayed indications of carbon matter, possibly C_2 gas. He believed this to be the result of volcanic or related activity. However, no evidence for this phenomenon has been found from lunar missions and the emission results have never been confirmed.

Notes: in March 1965, the Ranger 9 probe impacted the crater at 2 670 m/s. With Ptolemaeus and Arzachel, it forms a magnificent trio of craters visible with binoculars.

Naming: Alphonsus is named after King Alfonso X of Castile (known as "Alfonso the Wise") who had an interest in astronomy. Like many of the craters on the Moon's near side, it was given its name by Giovanni Riccioli whose 1651 nomenclature system has become standardized. Riccioli originally named it "Alphonsus Rex" (King Alfonso), but the “Rex” was later dropped. Earlier lunar cartographers had given the feature different names. Michael van Langren's 1645 map calls it "Ludovici XIV, Reg. Fran.", after Louis XIV of France. Johannes Hevelius called it "Mons Masicytus" after a range of mountains in Lycia.

* pre-Nectarian era https://www.lpi.usra.edu/meetings/lpsc2008/pdf/1019.pdf

No eclipses, lunar or solar, will be visible from southern Africa this month

COMETS, ASTEROIDS AND METEORS

The link to the latest Comet, Asteroid and Meteor Section from **Tim Cooper**:

https://assa.saao.ac.za/wp-content/uploads/sites/23/2026/03/ASSA-CAMnotes-2026-Number-2.pdf

The latest Deep and Shallow Sky Bulletin by the Director, **Colin Steyn**, is now available to download from the webpage

https://assa.saao.ac.za/publications/deep-sky/

MEMBERS’ IMAGES

DEREK DUCKITT'S SOUTHERN PLEIADES

Imaging telescope / lens Sky-Watcher Apochromatic 120/600 mm

Imaging camera Fujifilm X-T30 (CMOS)

Mount Alt-azimuth tripod Other HEQ5 Pro

Guiding telescope / lens William Optics Refractor 32/120 mm Uniguide Scope

Guiding camera ZWOptical ASI 553 MC PRO (CMOS)

Processed with Fujifilm XT-30, Android App, DeNoise (Topaz Labs), Photoshop 2025PHD

Guiding (Stark Labs) 2

The SOUTHERN PLEIADES
Caldwell 102, IC 2602

Description	Open star cluster
Constellation	Carina
Distance	479 ly, 147 pc
Magnitude	+1.90
Apparent size	100 arcmin
Diameter	15.3 ly, 4.7pc
J2000 Dec/RA	-64º24'19" / 10h42m58s
Alt/Az (Hermanus)	+37º56'11" / 211º23'23"

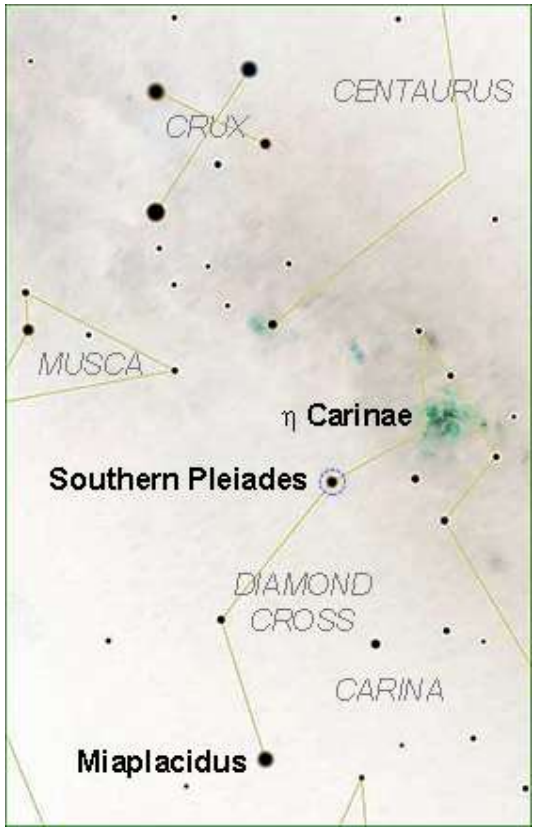
Visibility on 2026 June 11

Rises	*Transits*	*Sets*
Does not rise	16h09	Does not set

Naked Eye	Yes
Binoculars	Yes
Telescope	Yes (wide-field eyepiece)

DISCOVERY AND HISTORY

The prominent open cluster **IC 2602** was discovered by abbot Louis de Lacaille in March of 1752, observing from South Africa. This cluster in Carina is often compared with the Pleiades and is commonly known as the *"Southern Pleiades"*. It is also known as the Theta Carinae cluster.



PROPERTIES

The distance of IC 2602 has recently been adjusted using data from the Hipparchos star catalog. The cluster is at a distance of 479 light years (the older value was 489 light years). The cluster is thought to have an age of 50 million years.

OBSERVATION

IC 2602 has an overall magnitude of +1.9 and contains about 75 stars. **θ Carinae** (mag. +2.74) is a third-magnitude star and the brightest within the cluster. The other stars in the cluster are of fifth magnitude and fainter.

Like its northern counterpart in Taurus, the Southern Pleiades spans a sizeable area of sky, approximately 50 arc minutes. It is best viewed with large binoculars or a telescope with a wide-angle eyepiece.

*NOTE for those confused by the designations **C102** and **IC2602**:*

"C" denotes the **Caldwell catalogue** –

An astronomical catalogue of 109 star clusters, nebulae and galaxies for observation by amateur astronomers. The list was compiled by Patrick Moore as a complement to the Messier catalogue

https://en.wikipedia.org/wiki/Caldwell_catalogue

"IC" is the **Index Catalogue** –

Two supplements to John Dreyer's **New General Catalogue**, published in 1888, include a further 5 386 objects.

https://en.wikipedia.org/wiki/New_General_Catalogue

Carina
The keel

Genitive: Carinae
Abbreviation: Car
Size ranking: 34th
Origin: Part of the original Greek constellation Argo Navis

The smallest but most prominent of the three parts into which the ancient Greek constellation of Argo Navis, the ship of the Argonauts, was divided by the French astronomer Nicolas Louis de Lacaille in his first catalogue of the southern stars, published in 1756. In that catalogue he gave it the French name Corps du Navire. His final catalogue, Coelum australe stelliferum, appeared in 1763 containing the same three subdivisions but with Latin instead of French names. Although usually described as the keel, Carina represents the main body or hull of the ship. The other two parts are Puppis, the poop or stern, and Vela, the sails.

Carina inherited the two brightest stars of the dismantled Argo; they are now labelled **Alpha Carinae** (better known as Canopus) and **Beta Carinae** (Miaplacidus). Canopus, a creamy white giant just over 300 light years away, is in fact the second-brightest star in the entire sky; it marks the blade of one of the ship's two steering oars. Eratosthenes and Ptolemy both spelled the star's name Κάνωβος (Kanobos); Canopus is the Latinized version.

Canopus and other stars

Canopus was not mentioned by Aratus in the Phaenomena (c.275 BC), because the star was below the horizon from Greece in his day. The name first appears with his somewhat younger contemporary Eratosthenes who was based further south at Alexandria in northern Egypt. From there he could see Canopus low in the south, as could Ptolemy who worked at Alexandria four centuries later. It was the most southerly star that Ptolemy catalogued in his *Almagest*, and by some way: the next most southerly was the present-day Tau Puppis, over 3° to the north.

Greek writers such as Conon (c.280–c.220 BC) and Strabo (64/63 BC–c.AD 24) tell us that Canopus is named after the helmsman of the Greek King Menelaus. On Menelaus's return from Troy with Helen, his fleet was driven off-course by a storm and landed in Egypt. There Canopus died of a snake bite. Helen killed the snake and she and Menelaus buried Canopus with full honours. On that site grew the city of Canopus (the modern Abu Qir in Alexandria) at the mouth of the Nile. Fittingly, modern space probes now use Canopus as a navigation star. Eratosthenes also knew this star by the name Περίγειος (i.e. Perigeios, or Perigee), in reference to the fact that it remained close to the horizon; this name appeared in Eratosthenes's entry on Eridanus, not Argo.

The Arabs called Canopus Suhail, a name of uncertain meaning. In one story Suhail was said to be the brother of Sirius and Procyon, who were his sisters. Sirius crossed the Milky Way into the southern sky to be with him, while Procyon was left behind on the northern side of the Milky Way, crying and hence dimmer than her southern siblings.

Beta Carinae is called Miaplacidus, but the origin of the name is unknown. The second-magnitude stars Epsilon and Iota Carinae, along with Delta and Kappa Velorum to the north in Vela, form a cruciform shape known as the False Cross, sometimes mistaken for the true Southern Cross. Epsilon Carinae is called Avior, a name given in or around 1937 by the UK's Nautical Almanac Office for use in The Air Almanac, a navigation guide produced for the Royal Air Force. The RAF specified that all navigation stars should have proper names so this name was coined for the otherwise unnamed Epsilon Carinae.

Eta Carinae and the Keyhole

The constellation contains a unique star, Eta Carinae, that flared up to become brighter than Canopus in 1843, but has since faded to the edge of naked-eye visibility. Astronomers now think that Eta Carinae is a close pair of hot, very massive stars. They cannot be seen directly because they are embedded in a cloud of gas called

the Homunculus Nebula that was ejected during the great eruption. One or both of the stars will one day explode as a supernova.

Eta Carinae lies in front of a much larger area of glowing gas known as the Eta Carinae nebula or simply the Carina nebula, catalogued as NGC 3372. Silhouetted against the bright background next to Eta Carinae is a bulbous mass of dark gas and dust known as the Keyhole nebula from its distinctive shape. This was from his observations made at the Cape of Good Hope in 1834–38.

Chinese associations

In ancient China, Canopus was known as Laoren, 'old man', or sometimes Nanji Laoren, 'old man of the south pole'. He was equated with Shouxing, the god of longevity.

Carina also once contained part of a large Chinese constellation called Qifu, a storehouse for musical instruments, the rest of which was in Centaurus and Vela. However, as the effect of precession gradually carried Qifu below the southern horizon the constellation was repositioned to the north on later star maps, farther into Centaurus and out of Carina entirely.

Please keep in touch...

Have a look at our excellent website, edited by Derek Duckitt–https://www.hermanusastronomy.co.za/

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!

https://www.mnassa.org.za/

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