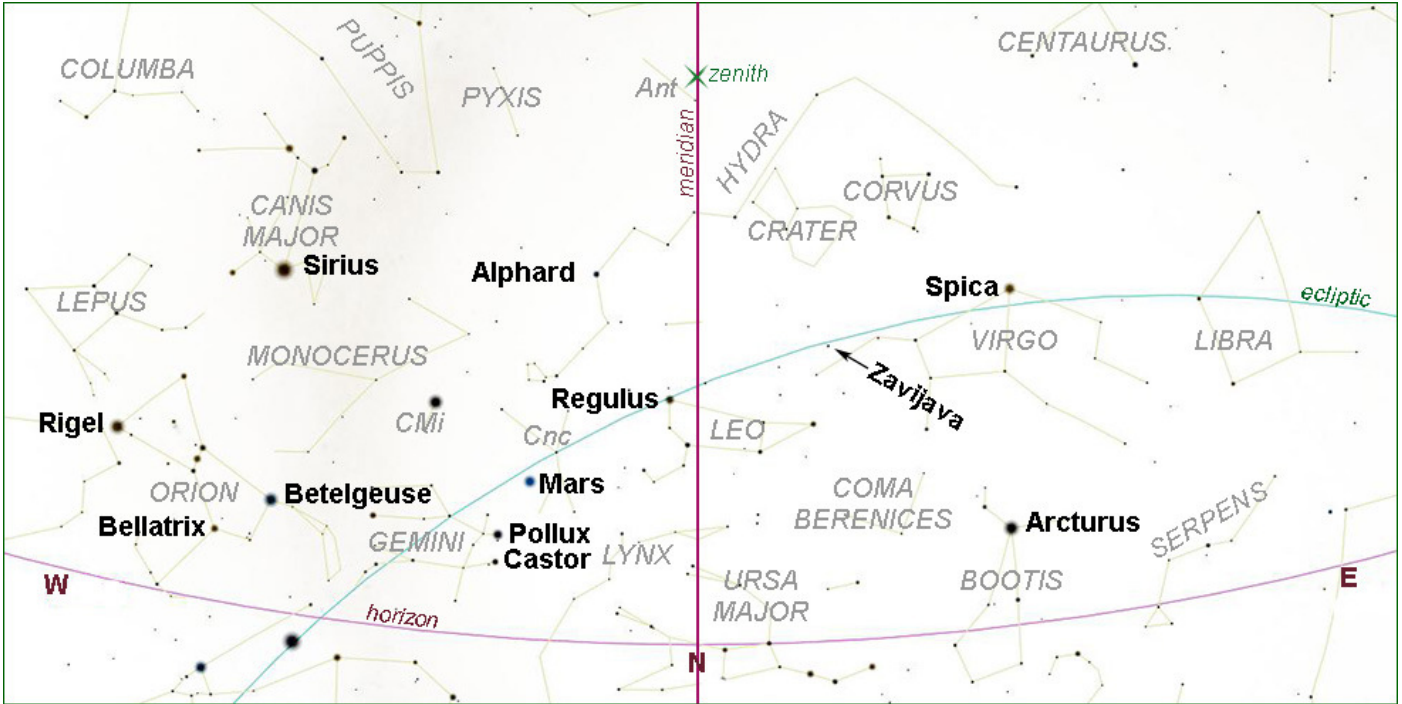
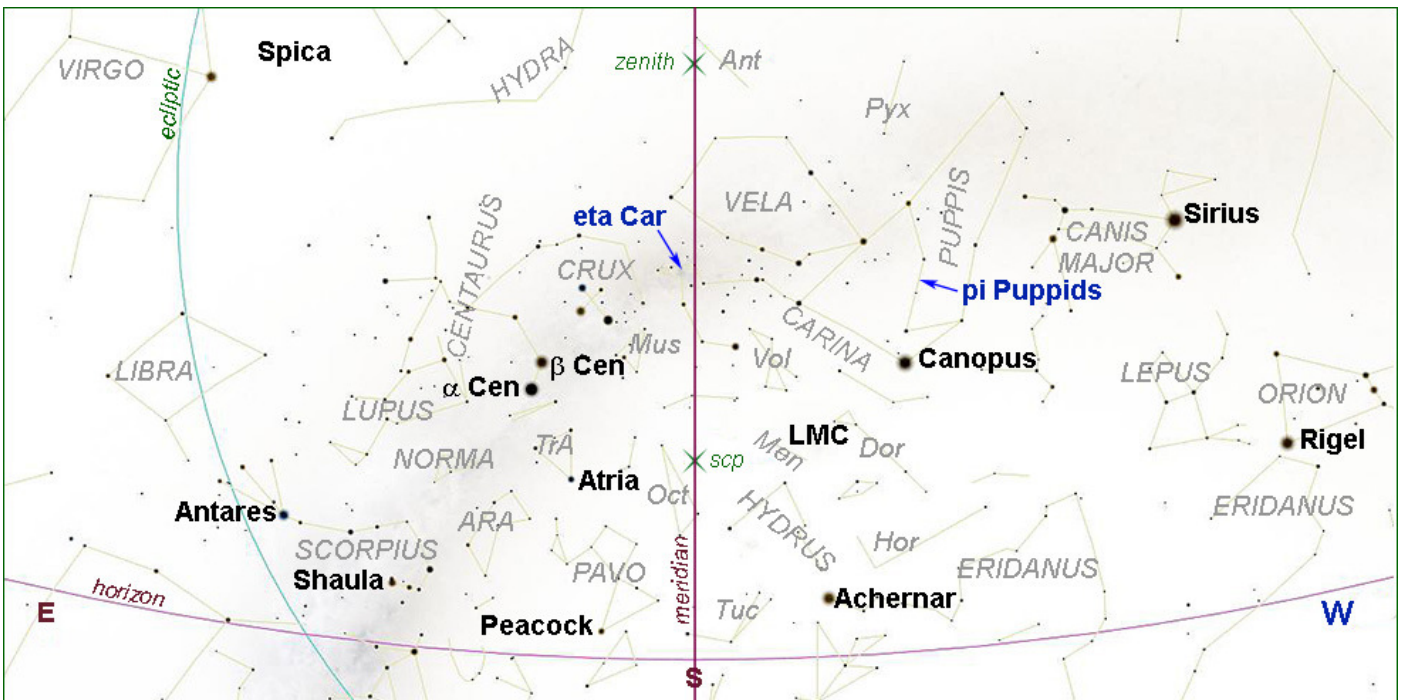


SKY CHARTS

EVENING SKY – APRIL 24th at 21h00 (NORTH DOWN)



EVENING SKY – APRIL 24th at 21h00 (SOUTH DOWN)



SUGGESTED EVENING OBSERVATION WINDOW

(Lunar observations notwithstanding)

<i>Date</i>	<i>Moon</i>	<i>Dusk end</i>
April 19	<i>Rises</i> 22h38 (70%)	19h39
to April 30	<i>Sets</i> 19h48 (6%)	19h28

THE SOLAR SYSTEM

PLEASE NOTE: all events are as viewed from **HERMANUS**, Western Cape, South Africa.

APRIL HIGHLIGHTS based on the 2025 SKY GUIDE

<i>Date</i>	<i>Time</i> (SAST)	<i>Item</i>
2		Moon (19% waxing) sets 37 minutes before Jupiter
4		Callisto at maximum from Jupiter (8')
		Moon northernmost (+28.7°)
5	04h15	First quarter Moon
	21h52	Moon slides coyly between Mars and Pollux
6		Mercury stationary
8		Moon passes 2.7° north of Regulus (α Cen)
10	21h56	Moon at descending node
	21h32	Moon (92%, dark limb) occults Zavijava (β Vir) (Mag. +3.55)
		Venus stationary
		Callisto at maximum from Jupiter (8')
12		Dwarf planet Makemake 136472 (mag. +17.2) at opposition
13	05h32	Full Moon occults Spica (α Vir)
14	00h48	Moon at apogee (406 295 km)
16	19h29	Moon (87%) (bright limb) occults σ Sco
	23h10	Moon (87%) (bright limb) occults Antares
17		Mars at aphelion (1.666 au)
18		Moon southernmost (-28.6°)
21	03h36	Last quarter Moon
		Callisto at maximum from Jupiter (7')
		Mercury at western elongation (27.4°)
25		Moon at ascending node
26		Moon near Mercury
27		New Moon
	18h15	Moon at perigee (357 119 km)
		Venus (phase 25.5%) at greatest brilliancy (mag. -4.8)
29		Callisto at maximum from Jupiter (7')
30	20h00	Moon sets 3.9° north-west of Jupiter

SOLAR SYSTEM VISIBILITY

2025 APRIL 24th

When visible?

Sun	Aries	Rise:	07h13	Never look at the sun without SUITABLE EYE PROTECTION!
Length of day	10 hours 55 minutes	Transit:	12h41	
		Set:	18h09	
Mercury	Cetus	Rise:	05h02	Low in the east before sunrise
Magnitude	+0.3	Transit:	11h04	
Phase	50%	Set:	17h05	
Diameter	7"			
Venus	Pisces	Rise:	04h18	Morning
Magnitude	-4.5	Transit:	10h18	
Phase	24%	Set:	16h18	
Diameter	40"			
Mars	Cancer	Rise:	13h54	Evening
Magnitude	+0.8	Transit:	18h53	
Phase	90%	Set:	23h53	
Diameter	7"			
Jupiter	Taurus	Rise:	10h53	Evening
Magnitude	-2.0	Transit:	15h49	
Diameter	34"	Set:	20h44	
Saturn	Pisces	Rise:	04h15	Morning
Magnitude	+1.2	Transit:	10h25	
Diameter	16"	Set:	16h35	
Uranus	Taurus	Rises:	08h59	Low in the west before sunset
Magnitude	+5.8	Transit:	14h07	
Diameter	3"	Set:	19h14	
Neptune	Pisces	Rise:	04h34	Morning
Magnitude	+7.9	Transit:	10h38	
Diameter	2"	Set:	16h42	
Pluto	Capricornus	Rise:	23h49	Morning
Magnitude	+14.5	Transit:	07h01	
		Set:	14h10	

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 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.

Magnitude: we are accustomed to hearing stars described in terms of 'magnitude'. For example, the planet Jupiter at magnitude -1.8 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 down to a magnitude of about +6.

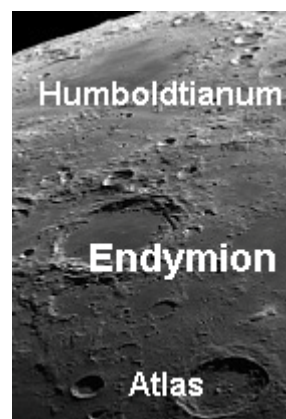
THE MOON

ENDYMION CRATER

LOCATION: close to the Moon's northeast limb: lat 53.6° long 56.48°. The crater appears foreshortened from Earth and is subject to the effects of [lunar libration](#) – a rocking and rolling action stemming from the fact that the Moon's orbit is tilted and elliptical. A favourable libration will bring Endymion closer to the Moon's centre and, as it does so, 260km Mare Humboldtianum also rotates into view, visible between Endymion and the Moon's limb.

TYPE: an impressive walled plain.

APPEARANCE: The floor looks featureless and smooth but there are three equal sized (~2km dia.) craters in a line in the upper left of the crater just barely discernable here. The shadow filled crater at the bottom of the image is Atlas. A line drawn from Atlas, through Endymion leads to another flat region, this is Mare Humboldtianum (250km dia.). Its extent can be seen varying depending on the libration the night you are observing. This basin is also Nectarian in age with much of the contained material being younger, of Upper Imbrian age (3.4-3.7 billion years ago). The Lunar Prospector noted a mascon in the center of the Mare where there was higher gravity due to the greater mass of this Imbrian material. Look for a libration where this is tipped toward you for a good view.



Endymion crater facing northeast (Image attributed - Chris Dignan)

AGE: 160km diameter crater was formed during the Nectarian period (around 3.9 billion years ago).

NAMED BY: Percy Lund, Humphries and Co. Ltd., London, 1935.

BEST SEEN: 3-4 days after the New Moon.

GREEK MYTHOLOGY: **Endymion** (pron. EnDEEmion) was variously a handsome [Aeolian shepherd](#), hunter, or king who was said to rule and live at Olympia in [Elis](#). He was also venerated and said to reside on [Mount Latmus](#) in [Caria](#), on the west coast of [Asia Minor](#).

No eclipses, solar or lunar, are predicted for this month

METEOR ACTIVITY

<u>From</u> <u>SGSA2025</u>	<i>Maximum</i> <i>Date/Time</i>	<i>Moon on max</i> <i>Date/Time</i>	<i>Duration</i>	<i>Radiant</i>	<i>ZHR*</i>	<i>Velocity</i> <i>Km/sec</i>
April Lyrids	April 22 02h00 – 05h00	40% Rises 00h48	April 14 – 30	10° south-west of Vega (α Lyr)	18	49
π Puppids	April 23 19h00 – 23h00	19% Rises 03h05	April 15 – 28	12° north-west of Canopus	<5	18

Observation prospects look poor for the April Lyrids while the π Puppids look more promising.

* ZHR is an ideal value. It is, by definition, the number of meteors a single observer could possibly see during a shower's peak with the radiant directly overhead on a clear, dark night. Most observers, however, will not see as many meteors as the ZHR suggests. Also, the presence of a bright moon, atmospheric conditions and the shower's proximity to the horizon can seriously diminish the observation of meteor activity.

COMETS, ASTEROIDS AND METEORS

Tim Cooper's latest edition of CAMnotes (April to June) is not yet available. You will be informed as soon as this editor hears,.

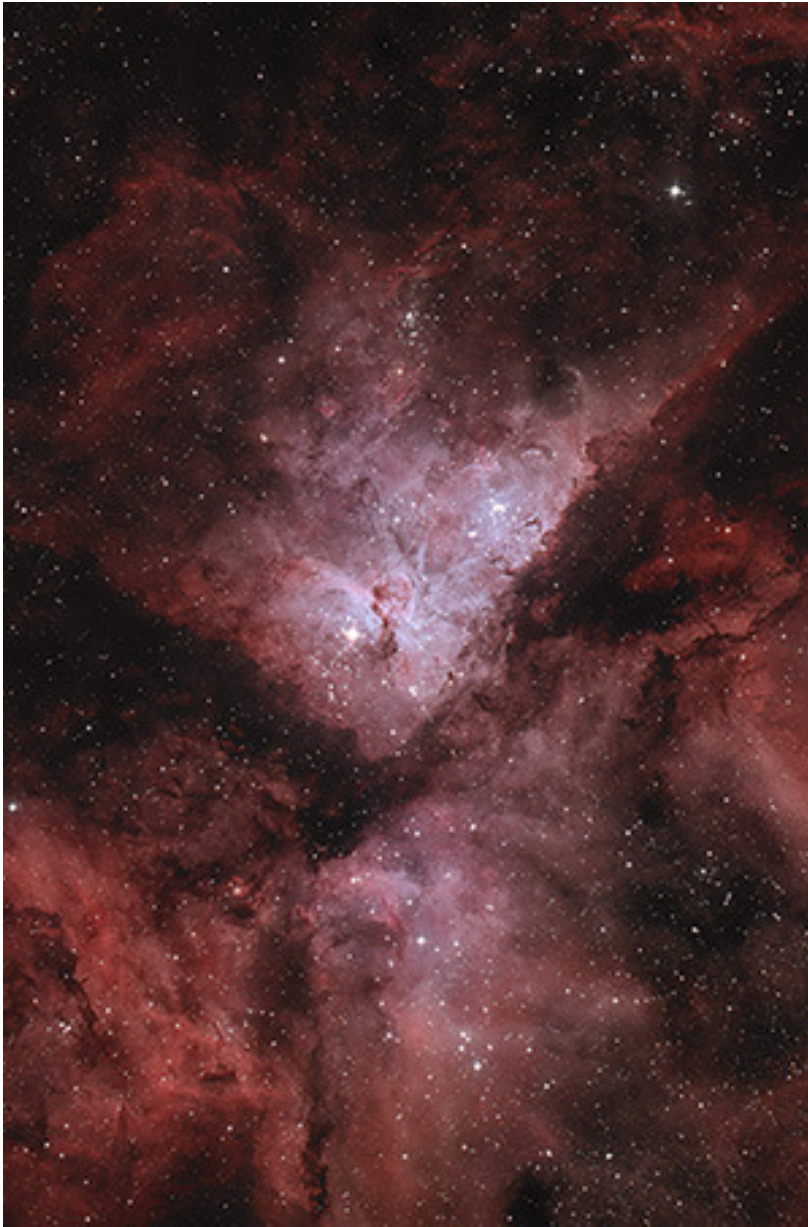
OBJECT OF THE MONTH

Eta Carinae Nebula (NGC 3372)

Image attributed to Subhankar Saha

Scope: AstroTech 10" F/4 (FL 1000mm)
Imaging Newtonian + Baader MPCC mk III + Hutech LPSv2
Mount: Orion Atlas EQ-G + EQMOD
Camera: Modified Canon 500D (Brent Oliver) Pixel size 4.69
Guiding: Lodestar
Guide Scope: Orion 80mm ShortTube
Special Settings: None
ISO: 1600
Exposure: 1 hours 45 minutes (21x 5 min)
Info: Ambient temperature 12-13C.
Mostly dry, no dew. Gusty winds at times (which threw off guiding often resulting in fat stars).
Support Files: 120 Bias, 40 Darks and 50 Flats

Image data processed by Derek Duckitt using Siril, GraXpert, Seti Astro Suite, Topaz Denoise, Nik Viveza, and Photoshop.



eta Carinae Nebula NGC 3372, C92

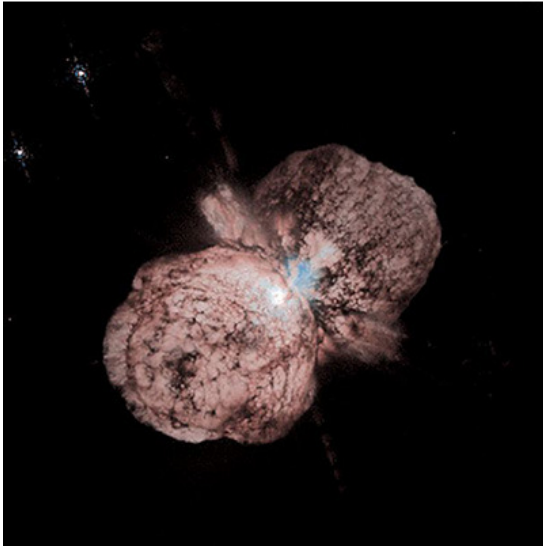
<i>Description</i>	Bright nebula	Visibility on April 24th 2025		
<i>Constellation</i>	Carina	<i>Rises</i>	<i>Transits</i>	<i>Sets</i>
<i>Distance</i>	10 kly, 3.1 kpc	Does not rise	21h16	Does not set
<i>Visual magnitude</i>	+1.00	<i>Naked Eye</i>	<i>Binoculars</i>	<i>Telescopes</i>
<i>Absolute magnitude</i>	+11.43	Yes in good	Yes	Yes
<i>Diameter</i>	349 ly, 107 pc	conditions		
<i>Apparent size</i>	120 arcmin			
<i>J2000 Dec/RA</i>	-59°53'21" / 10h44min19sec			
<i>Alt/Az</i>	+64°15'02" / +175°21'53"			

OBSERVATION

Nestled in the rich starry region half-way between **The Southern Cross** and the **False Cross**, the beautiful nebula NGC3372, a proud member of the “*Southern Big Five of the African Skies*”, is conveniently placed about 65° above our southern horizon. Binoculars will clearly pick out the density of this tightly packed

region. A small telescope will reveal the nebulosity in all its glory. While many will have already examined η Carinae, this spectacle surely deserves a revisit.

The massive star η Carinae (almost hidden in the centre) underwent a giant explosion some 150 years ago. The outburst spread the material that is visible today in this very sharp Hubble image [below]. Even though Eta Carinae is more than 8 000 light-years away, structures only 15 thousand million kilometre across (about the diameter of our solar system) can be distinguished. Dust lanes, tiny condensations and strange radial streaks all appear with unprecedented clarity.



A huge, billowing pair of gas and dust clouds is captured in this stunning Hubble Space Telescope image of the supermassive star Eta Carinae.

Credit: Jon Morse (University of Colorado), and [NASA/ESA](#)

DISCOVERY

It might seem puzzling that **Alpha** and **Beta Centauri** and the stars of **Crux** were known to the ancient Greeks when they are now too far south to rise above the horizon from Mediterranean latitudes. The reason is the effect, known as precession, caused by a wobble of the Earth's axis in space which slowly changes the position of the celestial poles. In Ptolemy's day, the South Celestial Pole lay some 10° from where it is now. As a result, the stars of Centaurus and its neighbours were about 10° higher in the Greek sky than they are today. This difference was enough to make these stars observable from ancient Greece.

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!](#)

<http://www.mnassa.org.za/>

With Grateful thanks to the following:

2025Sky Guide Southern Africa

Ian Ridpath

Sky Safari

Stellarium

The Practical Skywatcher's Handbook

Tim Cooper

Wikipedia

Edited by Peter Harvey - petermh@hermanus.co.za