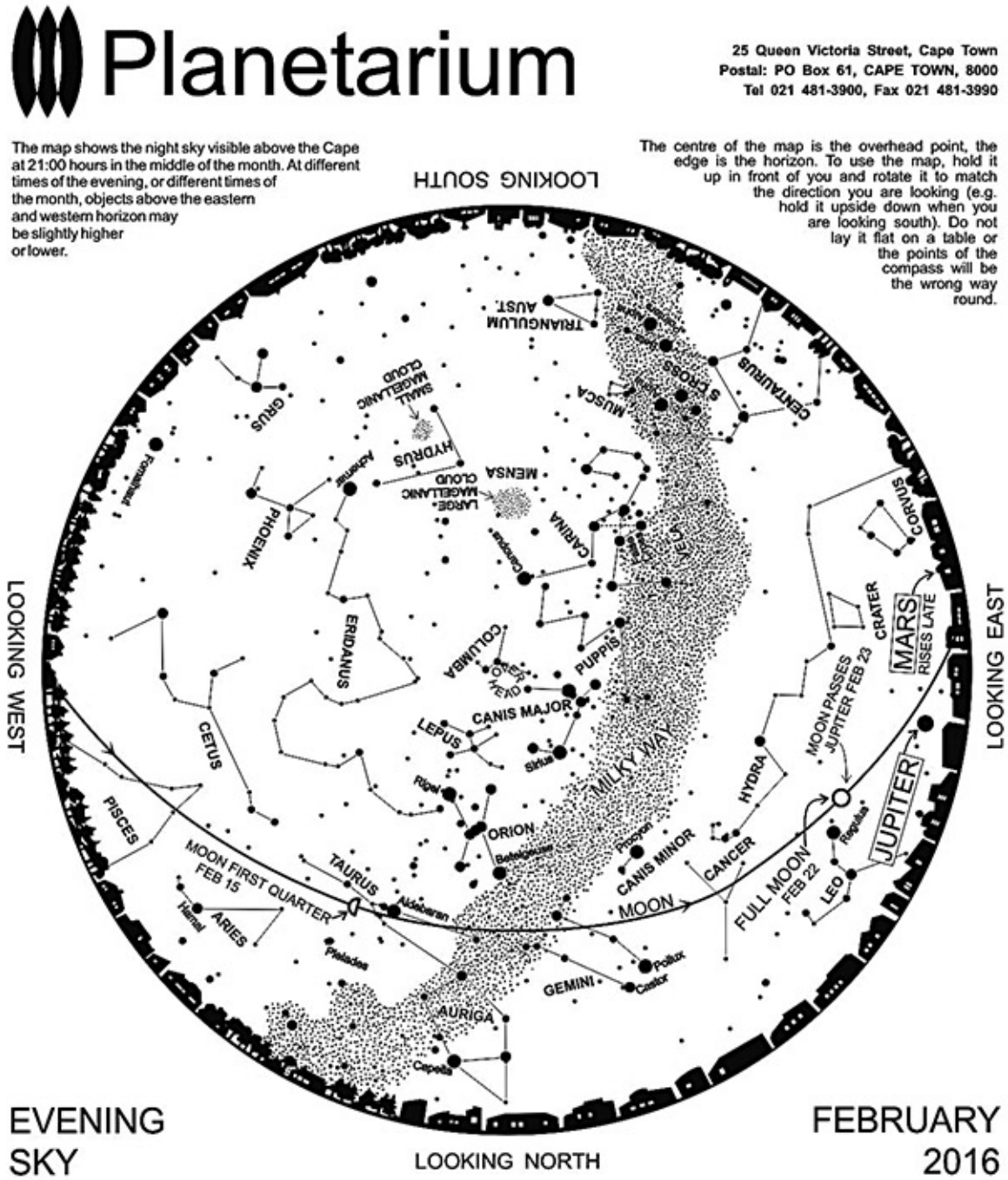
HERMANUS ASTRONOMY CENTRE

THE SKY THIS MONTH : FEBRUARY 2016

http://www.hermanusastronomy.co.za/

1. SKY MAPS

EVENING SKY MID FEBRUARY at 21h00



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

2. THE SOLAR SYSTEM

Sun & Planets	*FEBRUARY 2016*		*1st*	*29th*
Sun		Rises:	06h04	06h30
Constellation:	Capricornus to Aquarius	Transits:	12h57	12h56
Length of day	13h46 to 12h51	Sets:	19h50	19h21
Mercury	phase 57% to 87% , ϕ 8" to 5"	Rises:	04h11	04h59
Constellation	Sagittarius to Capricornus	Transits:	11h13	11h49
Magnitude:	+0.1 to -0.3	Sets:	18h16	18h37
Venus	phase 85% to 91%, ϕ 12" to 11"	Rises:	03h36	04h28
Constellation:	Sagittarius to Capricornus	Transits:	10h45	11h20
Magnitude:	-4.0 to -3.9	Sets:	17h54	18h11
Mars	phase 90%, ϕ 7" to 9"	Rises:	00h08	22h56
Constellation:	Libra	Transits:	06h52	05h53
Magnitude	+0.8 to +0.3%	Sets:	13h37	12h48
Jupiter	ϕ 42" to 44"	Rises:	21h41	19h43
Constellation:	Leo	Transits:	03h35	01h34
Magnitude:	- 2.4 to -2.5	Sets:	09h25	07h20
Saturn	ϕ 16"	Rises:	01h49	00h06
Constellation:	Ophiuchus	Transits:	08h52	07h09
Magnitude:	+0.6 to +0.5	Sets:	15h54	14h12
Uranus	ϕ 3"	Rises:	11h18	09h33
Constellation:	Pisces	Transits:	17h03	15h17
Magnitude:	+ 5.8" to 5.9"	Sets:	22h48	21h00
Neptune	ϕ 2"	Rises:	08h13	06h28
Constellation:	Aquarius	Transits:	14h40	12h54
Magnitude:	+8.0	Sets:	21h07	19h20
Pluto		Rises:	04h06	02h19
Constellation:	Sagittarius	Transits:	11h09	12h54
Magnitude	+ 14.2	Sets:	18h11	19h20

Mercury	Visible low in the east before sunrise.
Venus	The Morning Star
Mars	Visible in the morning sky
Jupiter	well placed for observation throughout the night
Saturn	Visible in the morning sky
Uranus	Visible in the evening sky
Neptune	Initially visible low in the west after sunset but moving too close to the sun later in the month
Pluto	Visible low in the east before sunrise

3. ECLIPSES

There are no eclipses, solar or lunar, predicted for February 2016.

4. THE MOON

Readers of the Sky Guide Africa South (SGAS) will see that February's highlight is Mare Crisium. Located near the east-north-eastern limb, it is a dark basaltic plain formed by volcanic eruptions. With a diameter of 638 km, the mare is about 3.8 billion years old.

Best seen three days after **New Moon** and two days after **Full Moon**. It can be seen as a small dark spot near the lunar limb.

5. FEBRUARY HIGHLIGHTS FROM THE SKY GUIDE

Date	*Time*	*Item*
1	05h28	**Last quarter Moon**
5 to 7		*Autumn Southern Star Party* [1]
5	06h34	**Moon** furthest south (-18.3º).
6	04h50	Fine crescent **Moon, Venus** and **Mercury** in a tight pre-dawn grouping [2]
7	02h59	**Mercury** at greatest elongation (25.6º W)
8	16h39	**New Moon**
10	22h46	**Moon** at descending node (crossing the ecliptic southbound)
10		**Moon** to **Neptune 2.0ºS**
11	04h42	**Moon** at perigee (364 400 km)
12		**Moon** to **Uranus** 1.6ºN
13	04h32	**Mercury** to **Venus** 4ºN
15	09h46	**First quarter Moon**
16		**Moon** to **Aldebaran 4ºS**
18	01h18	**Moon** furthest N (+18.3º)
22	20h20	**Full Moon**
22		**Moon** to **Regulus** 2.7º N, to **Jupiter** 1.9ºN, **Jupiter** double-shadow event
24	08h10	**Moon** at ascending node (crossing the ecliptic northbound)
27	05h28	**Moon** at apogee (405 400 km)
28	17h17	**Neptune** at conjunction

[1] Autumn Southern Star Party near Bonnievale http://southernstarparty.org/autumn_2016.html
[2] weather permitting, this beautiful grouping should be well worth the early rise (sunrise is 06h04)

6. METEOR SHOWERS

Name	*Date & Time of Max*	*Duration*	*Radiant*	*ZHR*	*vel.*	*Observing Prospect*
α Centaurids	7th February 22h00 to 03h30	28 January to 21 February	Very close to **β Centauri**	5	60	Favourable

Key to the table above:
ZHR – zenithal hourly rate
vel. - velocity in km per second

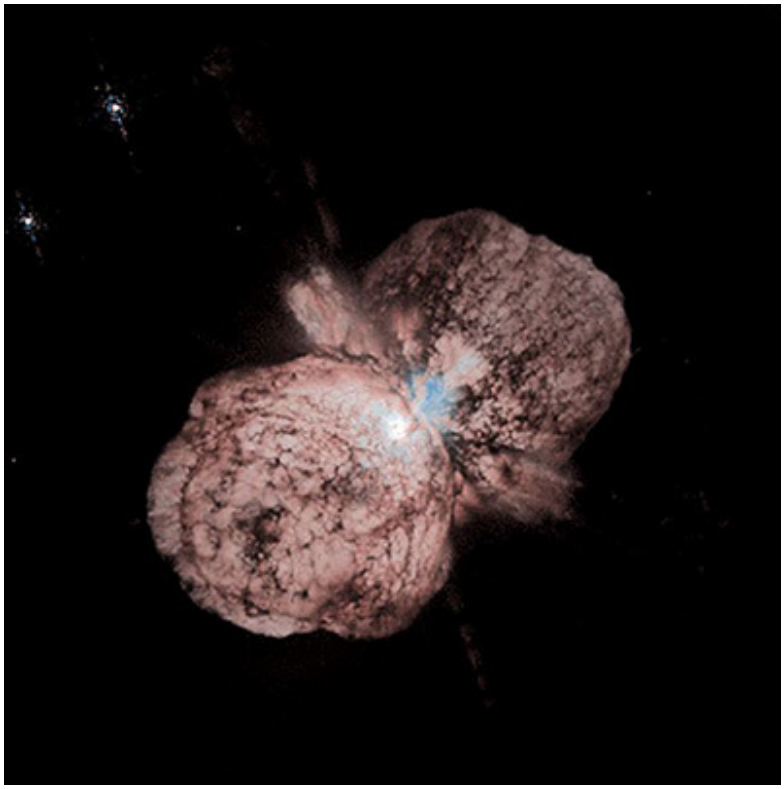
For more details regarding meteor watching, please see the Sky Guide Africa South (SGAS), pp 86- 87

7. DEEP SKY

Eta Carinae

Nestled in the rich starry region half-way between **The Southern Cross** and the f**alse cross**, the beautiful nebula NGC3372, a proud member of the "Southern Big Five", is conveniently placed about 50º above our south-eastern 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, particularly if the weather be good in the first ten days of February (to avoid the glare of the moon).

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 al 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

Ian Ridpath tells us about η Car's home constellation, Centaurus:

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, in a direction away from Centaurus. 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.

Keep in touch

Please 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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ASSA
Ofentse Letebele of Iziko Planetarium
Auke Slotegraaf
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