



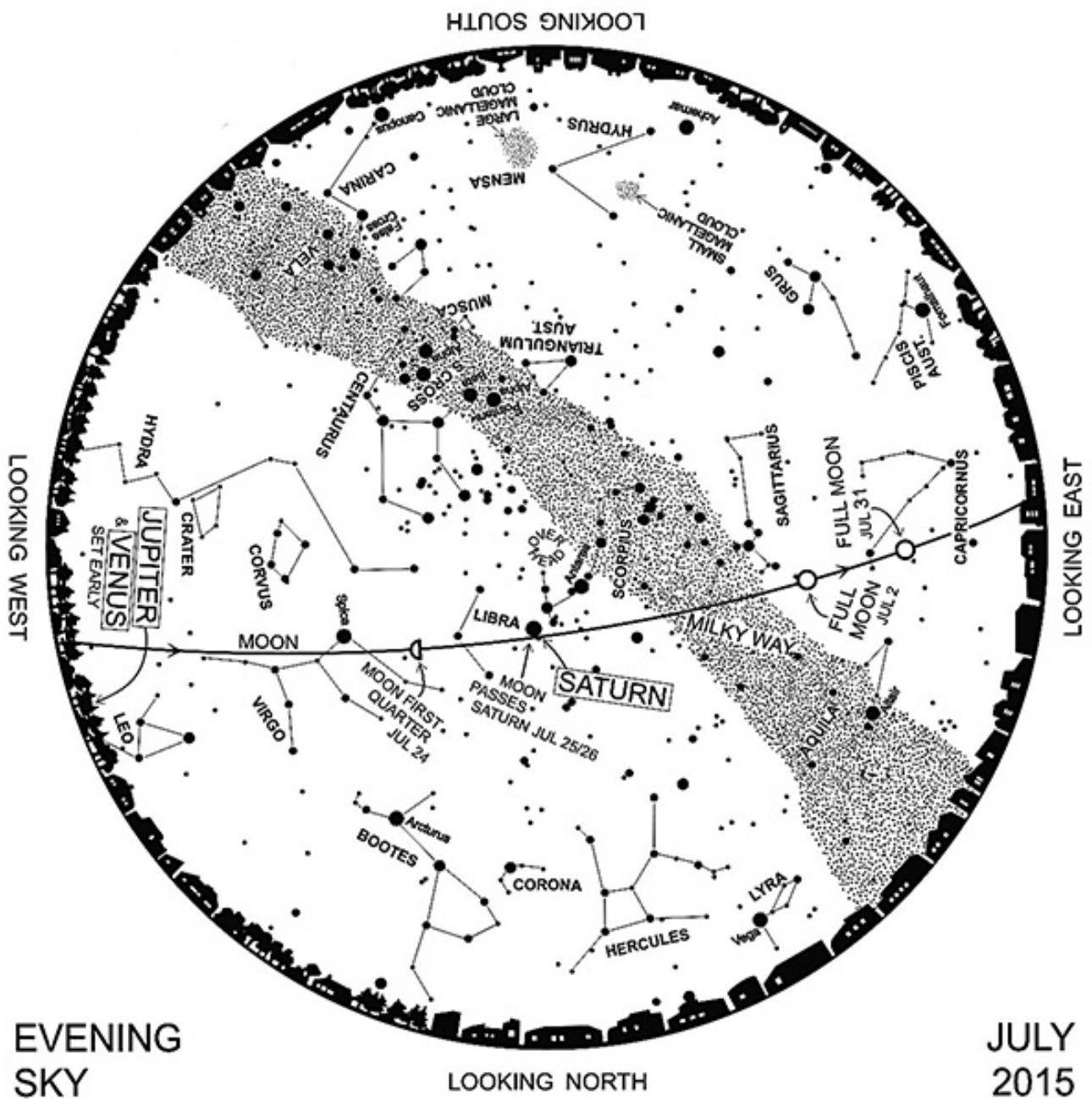
HERMANUS ASTRONOMY CENTRE

THE SKY THIS MONTH : JULY 2015

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

1. SKY MAPS

EVENING SKY MID JULY at 21^h00



2. THE SOLAR SYSTEM

<i>Sun & Planets</i>	<i>JULY 2015</i>		<i>1st</i>	<i>31st</i>
Sun Constellation: Gemini to Cancer Length of day 9h54m to 10h24m	Rises:		07h51	07h38
	Transits:		12h47	12h50
	Sets:		17h44	18h02
Mercury phase 53% to 96% , ϕ 7" to 5" Constellation Taurus to Cancer Magnitude: -0.1 to -1.2	Rises:		06h13	08h13
	Transits:		11h17	13h26
	Sets:		16h20	18h40
Venus phase 34% to 8% ϕ 32" to 52" Constellation: Leo Magnitude: -4.4 to -4.3	Rises:		10h23	0826
	Transits:		15h44	14h10
	Sets:		21h05	19h53
Mars phase 100% ϕ 4" Constellation: Gemini Magnitude +1.6.to +1.7	Rises:		07h35	06h57
	Transits:		12h27	11h55
	Sets:		17h19	16h53
Jupiter ϕ 32" to 31" Constellation: Leo Magnitude: -1.8 to -1.7	Rises:		/10h24	08h43
	Transits:		15h44	14h09
	Sets:		21h03	19h34
Saturn ϕ 18" to 17" Constellation: Libra Magnitude: +0.3 to +0.4	Rises:		15h02	13h01
	Transits:		21h55	19h53
	Sets:		04h51	05h50
Uranus ϕ 3" to 4" Constellation: Pisces Magnitude: +5.8"	Rises:		01h42	23h41
	Transits:		07h23	05h26
	Sets:		13h05	11h08
Neptune ϕ 2" Constellation: Aquarius Magnitude: +7.8	Rises:		22h25	20h24
	Transits:		04h54	02h55
	Sets:		11h20	09h21
Pluto Constellation: Sagittarius Magnitude +14.1	Rises:		18h05	16h03
	Transits:		01h10	23h05
	Sets:		08h12	06h11

Mercury	Shortly before dawn at the beginning of the month but soon disappearing behind the Sun. He reappears in the evening sky from about week three
Venus & Jupiter	The Lady and the Giant keep close company in the evening sky throughout the month
Mars	Morning sky
Saturn	All night
Uranus	Morning sky
Neptune	Morning sky
Pluto	Late evening and morning sky

3. THE MOON

Eclipses: There are no eclipses, solar or lunar, this month.

4. HIGHLIGHTS FROM THE SKY GUIDE

<i>Date</i>	<i>Time</i>	<i>Item</i>
1	Before dawn	Mercury about 9° from Aldebaran , the eye of the Bull
1	Evening	Venus near Jupiter
2	04h20	Full Moon
3	20h20	Moon occults 3.05 magnitude β Cap (const. Auriga) (dark limb event)
5	Before dawn	Mercury near 8.4 magnitude M1 Crab Nebula
6		Earth at aphelion
8	22h25	Last quarter Moon
9		Moon near Uranus
10		Venus greatest illuminated extent
12		Moon near Aldebaran
13		July Phoenicids meteor show max
15		Moon near Mercury and Mars
16	03h25	New Moon
18 & 19		Grouping of fine crescent Moon, Venus, Jupiter and Regulus ¹
21		Moon at apogee
23		Moon near Spica
24	06h00	First Quarter Moon
26		Moon near Saturn
28		Piscis Australid meteor shower maximum
29		Mars near Pollux
30		Alpha Capricornid meteor shower maximum
31	12h42	Full Moon, Venus near Regulus

¹ A lovely trapezoidal grouping shortly after sunset (18h00). Worth, I think a visit to Rotary drive with camera and some outer and inner warmth (*if the weather be good!*). I shall post a reminder closer to the date.

5. METEOR SHOWERS

<i>Name</i>	<i>Date & Time of Max</i>	<i>Duration</i>	<i>Radiant</i>	<i>ZHR vel.</i>		<i>Observing Prospect</i>
July Phoenicids	13 July 23h00 to 05h00	10 to 16 July	10° SW of Achernar	<5	47	Favourable
Piscis Australids	28 July 21h30 to 05h00	19 July to 17 August	5° W of Fomalhaut	5	35	Poor
S. δ Aquariids	29 July 22h00 to 05h00	21 July to 29 August	14° NW of Fomalhaut	25	42	Unfavourable
α Capricornids	30 July 20h00 to 04h00	15 July to 25 August	8° NE of β Capricorni	5	25	Unfavourable

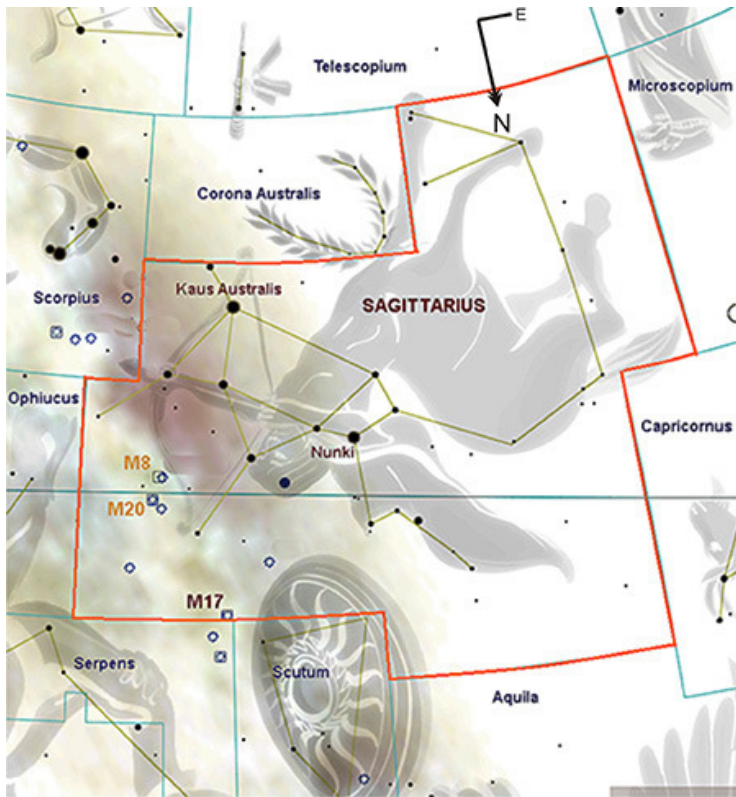
Key to the table above:

ZHR – zenithal hourly rate
vel. - velocity in km per second

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

6. CONSTELLATION OF THE MONTH – SAGITTARIUS

Prompted by SGAS, the choice for July is Sagittarius. I quote (for those unfortunate enough to have missed this fine publication):



The graceful Swan Nebula in Sagittarius was first seen in 1764 by the youthful de Cheseaux who described it as “having the perfect form of a ray or the tail of a comet.” A few weeks after his discovery it was seen by French comet hunter Charles Messier. Binoculars show its rectangular shape and north-western tick-like feature clearly. Even a small telescope reveals its splendour, enthraling Carol Botha to write, “I am sure this is one of the most beautiful sights in the heavens.” A larger telescope shows the curved “head” of the swan more distinctly, accounting for several of its other popular names: “Horse Shoe” and “Omega Nebula”. The Swan is part of a star-forming complex about 5000 light years away.

The Swan, NGC6618 was catalogued by Messier as **M17** (see star map to left).

Also on the map are:

M8 (NGC6523), the **Lagoon Nebula**, (at 2500 light years) and **M20** (NGC6514), the **Trifid Nebula** (2200 light years).

All three of the above nebulae are approximately magnitude 6, thus *theoretically* visible to the naked eye under ideal conditions which, unfortunately, we do not have locally. But definitely visible in binoculars and small telescopes.

Rising in the eastern sky, Sagittarius follows the Scorpion, with the sting just to the south-west (see the map).

From **Ian Ridpath’s “Star Tales”**:

Sagittarius is depicted in the sky as a centaur, with the body and four legs of a horse but the upper torso of a man. He is shown wearing a cloak and drawing a bow, aimed in the direction of the neighbouring Scorpion. Aratus spoke of the Bow and the Archer as though they were separate constellations. Sagittarius is sometimes misidentified as Chiron. But Chiron is in fact represented by the other celestial centaur, the constellation Centaurus.

Sagittarius is a constellation of Sumerian origin, subsequently adopted by the Greeks, and this helps explain the confusion over its identity. Eratosthenes doubted that this constellation was a centaur, giving as one of his reasons the fact that centaurs did not use bows. Instead, Eratosthenes described Sagittarius as a two-footed creature with the tail of a satyr. He said that this figure was Crotus, son of Eupheme, the nurse to the Muses, who were nine daughters of Zeus. According to the Roman mythographer Hyginus, the father of Crotus was Pan, which confirms the view of Eratosthenes that he should be depicted as a satyr rather than a centaur.

Crotus invented archery and often went hunting on horseback. He lived on Mount Helicon among the Muses, who enjoyed his company. They sang for him, and he applauded them loudly. The Muses requested that Zeus place him in the sky, where he is seen demonstrating the art of archery. By his forefeet is a circle of stars that Hyginus said was a wreath ‘thrown off as by one at play’. This circlet of stars is the constellation **Corona Australis**.

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Sky Guide for Southern Africa 2015

Stellarium