

M81, Spiral Galaxy, Ursa Major

Continuing a series of photograph's of the Messier Objects



By NASA, ESA and the Hubble Heritage Team (STScI/AURA) - <http://www.spacetelescope.org/images/heic0710a/> (very high quality)
 ([cdn.spacetelescope.org/archives/images/screen//heic0710a.jpg JPEG file] 346 MB)<http://hubblesite.org/newscenter/archive/releases/2007/19/image/a/>
 (direct link), Public Domain, <https://commons.wikimedia.org/w/index.php?curid=2173424>

Rugby & District Astronomical Society

www.rugbyastro.org.uk

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Monthly Sky Notes

No. 185, May 2025, by Chris Longthorn



Sky Events for May 2025

03 23:12 Mars 2.1°S of Moon
04 13:52 FIRST QUARTER MOON
05 02:00 Eta-Aquarid Meteor Shower
09 22:38 ISS, -3, 30°, SSE
10 23:26 ISS, -3.9, 63°, SSE
11 22:37 ISS, -3.6, 50°, SSE
12 00:14 ISS, -3.9, 81°, S
12 16:56 FULL MOON
12 21:48 ISS, -3.3, 38°, SSE
12 23:25 ISS, -3.9, 79°, S
13 22:36 ISS, -3.9, 72°, S
14 00:13 ISS, -3.9, 71°, S
14 21:47 ISS, -3.7, 61°, SSE
14 23:24 ISS, -3.9, 79°, S
15 22:35 ISS, -3.9, 81°, S
16 00:11 ISS, -3.5, 48°, SW
16 21:46 ISS, -3.8, 78°, S
16 23:22 ISS, -3.8, 62°, SSW
17 22:34 ISS, -3.8, 73°, S
18 01:00 Uranus in Conjunction with Sun
18 21:45 ISS, -3.8, 80°, S
18 23:21 ISS, -3.2, 40°, SSW
19 22:32 ISS, -3.5, 52°, SSW
20 11:59 LAST QUARTER MOON
22 17:51 Saturn 2.8°S of Moon
23 23:52 Venus 4.0°S of Moon
25 19:30 R&DAS Monthly Meeting
27 03:02 NEW MOON
30 04:00 Mercury at Superior Conjunction
31 13:00 Mercury at Perihelion

April Image of the Month



One of a series of images (one image every five minutes) taken over the two hours of the partial eclipse. This one was taken at 10:48 which is very close to maximum eclipse from the UK at latitude 52°. All images were taken with a 60mm guidescope, using a home made filter made from Baader solar film.

Object of the Month for May



By NASA/ESA and The Hubble Heritage Team (STScI/AURA) - <http://www.spacetelescope.org/images/opo0328a/> ([cdn.spacetelescope.org/archives/images/screen/opo0328a.jpg direct link])<http://hubblesite.org/newscenter/newsdesk/archive/releases/2003/28/image/a>, Public Domain, <https://commons.wikimedia.org/w/index.php?curid=122383>

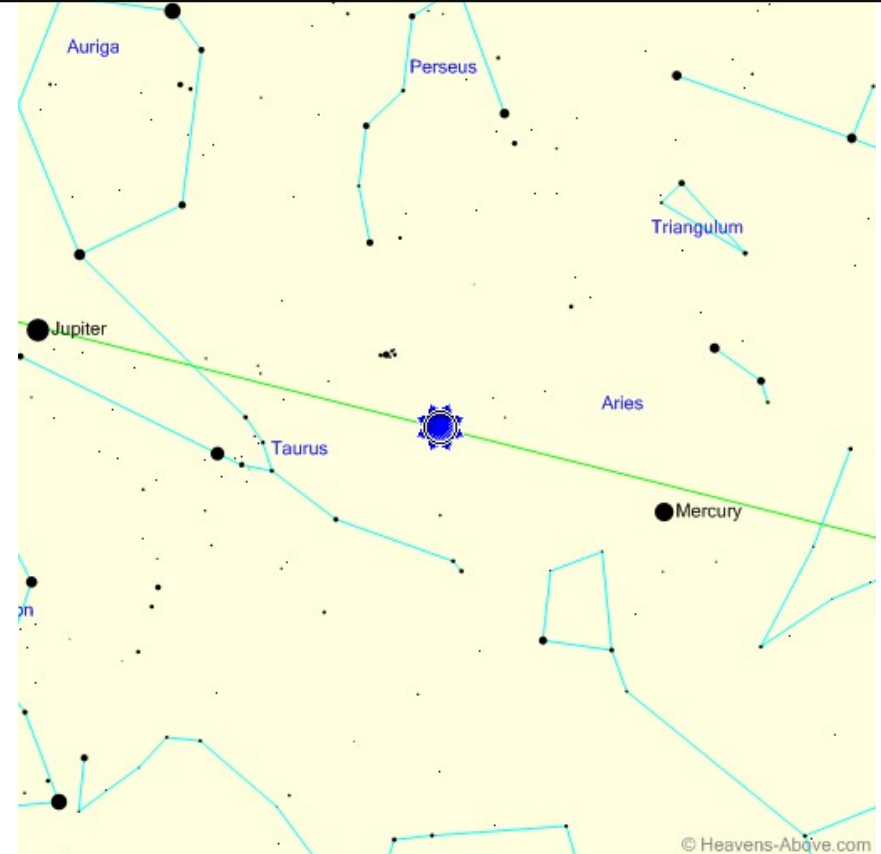
The Sombrero Galaxy (also known as Messier Object 104, M104 or NGC 4594) is a peculiar galaxy of unclear classification in the constellation borders of Virgo and Corvus, being about 9.55 megaparsecs (31.1 million light-years) from the Milky Way galaxy. It is a member of the Virgo II Groups, a series of galaxies and galaxy clusters strung out from the southern edge of the Virgo Supercluster. It has an isophotal diameter of approximately 29.09 to 32.32 kiloparsecs (94,900 to 105,000 light-years), making it slightly bigger in size than the Milky Way.

The Sombrero Galaxy was discovered on May 11, 1781 by Pierre Méchain, who described the object in a May 1783 letter to J. Bernoulli that was later published in the Berliner Astronomisches Jahrbuch. Charles Messier made a handwritten note about this and five other objects (now collectively recognized as M104 – M109) to his personal list of objects now known as the Messier Catalogue, but it was not "officially" included until 1921.

This galaxy's most striking feature is the dust lane that crosses in front of the bulge of the galaxy. This dust lane is actually a symmetrical ring that encloses the bulge of the galaxy. Most of the cold atomic hydrogen gas and the dust lie within this ring. The ring might also contain most of the Sombrero Galaxy's cold molecular gas, although this is an inference based on observations with low resolution and weak detections.

M104, The Sombrero Galaxy

The Sun, mid-May



Event	Time	Altitude	Azimuth
Astronomical twilight ends:	00:13	-18.0°	348°
Minimum altitude:	01:01	-18.8°	360°
Astronomical twilight begins:	01:50	-18.0°	12°
Nautical twilight begins:	03:28	-12.0°	35°
Civil twilight begins:	04:27	-6.0°	48°
Sunrise:	05:10	-0.8°	57°
Maximum altitude:	13:02	56.6°	180°
Sunset:	20:55	-0.8°	304°
Civil twilight ends:	21:38	-6.0°	312°
Nautical twilight ends:	22:37	-12.0°	325°

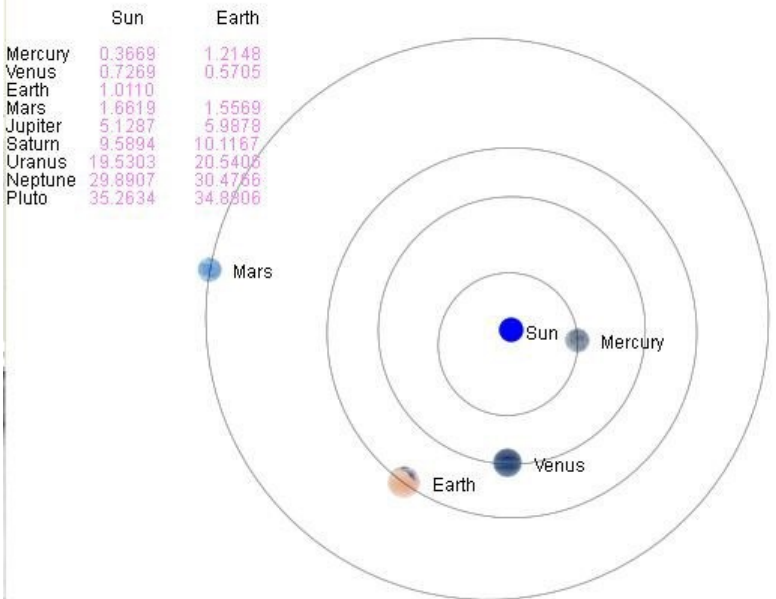
All data courtesy of Heavens-Above (www.heavens-above.com)

The Planets, mid May, 2025

Inner Solar System

2025-05-15 (BST)

23h00m

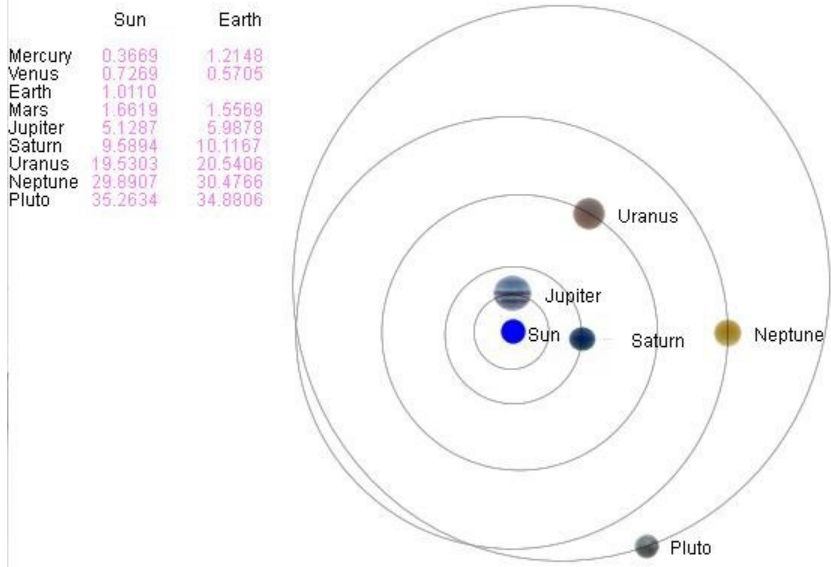


	Sun	Earth
Mercury	0.3669	1.2148
Venus	0.7269	0.5705
Earth	1.0110	
Mars	1.6619	1.5569
Jupiter	5.1287	5.9878
Saturn	9.5894	10.1167
Uranus	19.5303	20.5406
Neptune	29.8907	30.4766
Pluto	35.2634	34.8806

Outer Solar System

2025-05-15 (BST)

23h00m



	Sun	Earth
Mercury	0.3669	1.2148
Venus	0.7269	0.5705
Earth	1.0110	
Mars	1.6619	1.5569
Jupiter	5.1287	5.9878
Saturn	9.5894	10.1167
Uranus	19.5303	20.5406
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	Mercury	Venus	Mars	Jupiter	Saturn	Uranus	Neptune
Right ascension	2h 29m 39.9s	0h 38m 57.1s	9h 1m 28.6s	5h 34m 25.1s	23h 59m 13.6s	3h 38m 20.1s	0h 6m 19.3s
Declination	12° 52' 10"	3° 13' 6"	18° 43' 49"	23° 5' 51"	-2° 18' 58"	19° 14' 16"	-0° 43' 2"
Range (AU)	1.215	0.571	1.557	5.988	10.117	20.541	30.477
Elongation from Sun	15.8°	44.8°	77.4°	29.2°	56.1°	1.9°	53.8°
Brightness	-0.7	-4.3	1.1	-1.8	1.2	5.8	7.9
Equatorial Diameter	5.54"	29.25"	6.02"	32.92"	16.43"	3.43"	2.24"
Phase Angle	48.7°	101.7°	36.4°	5.5°	5.0°	0.1°	1.6°
Constellation	Aries	Pisces	Cancer	Taurus	Pisces	Taurus	Pisces
Meridian transit	11:58	10:09	18:31	15:05	09:31	13:09	09:38
Rises	04:51	03:53	10:47	06:52	03:44	05:23	03:43
Sets	19:07	16:25	02:18	23:18	15:18	20:56	15:33
Altitude	-23.5°	-33.4°	28.6°	2.2°	-36.5°	-13.2°	-35.5°
Azimuth	344.2°	15.4°	263.9°	306.4°	28.8°	329.1°	26.1°