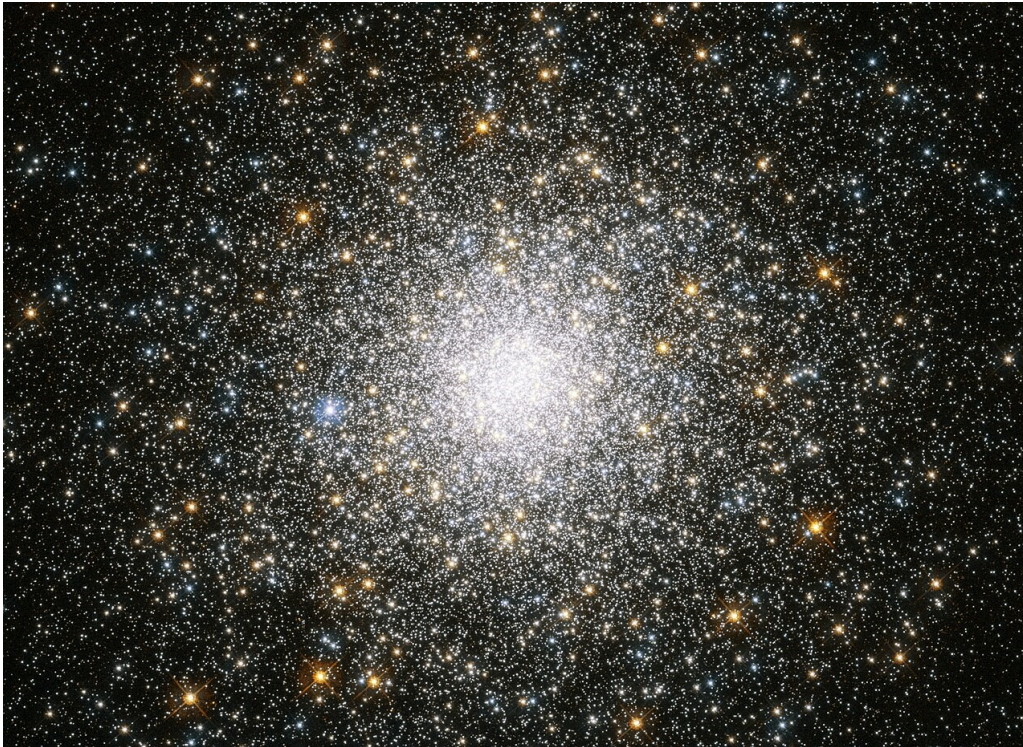


M75, Globular Cluster, Sagittarius

Continuing a series of photograph's of the Messier Objects



Messier 75 or M75, also known as NGC 6864, is a giant globular cluster of stars in the southern constellation Sagittarius. It was discovered by Pierre Méchain in 1780 and included in Charles Messier's catalogue of comet-like objects that same year.

M75 is about 67,500 light years away from Earth and is 14,700 light years away from, and on the opposite side of, the Galactic Center. Its apparent size on the sky translates to a true radius of 67 light years

By ESA/Hubble, CC BY 4.0, <https://commons.wikimedia.org/w/index.php?curid=78269357>

Rugby & District Astronomical Society www.rugbyastro.org.uk

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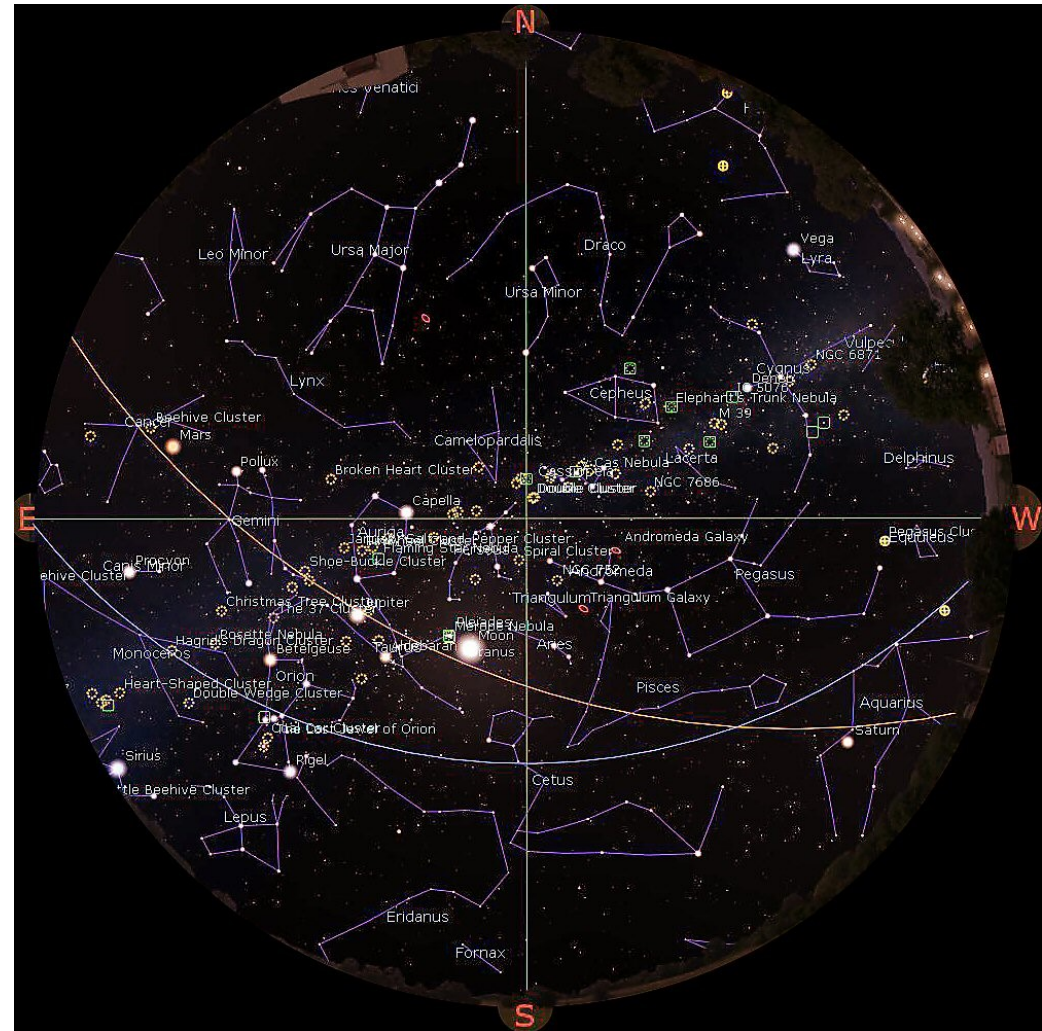
E-Mail: rugby-astro@hotmail.co.uk

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Rugby & District Astronomical Society

Monthly Sky Notes

No. 179, November 2024, by Chris Longthorn

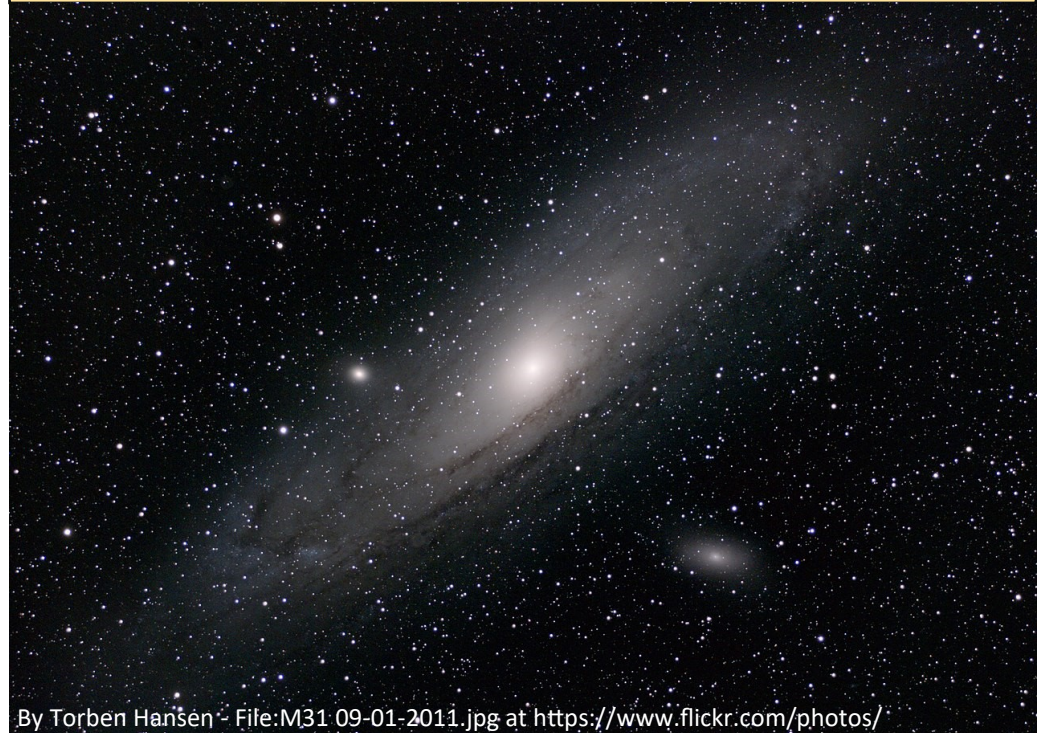


The night sky at 23:00 U.T.C., Nov 15th, 2024

Sky Events for November 2024

- 01 12:47 NEW MOON
- 03 07:37 Mercury 2.1°N of Moon
- 05 00:16 Venus 3.1°N of Moon
- 05 06:00 S Taurid Meteor Shower
- 05 18:58 ISS, -3.3, 48°, SE
- 09 05:56 FIRST QUARTER MOON
- 11 01:36 Saturn 0.1°S of Moon: Occn.
- 12 06:00 N Taurid Meteor Shower
- 15 21:29 FULL MOON
- 16 06:59 Pleiades 0.1°S of Moon
- 16 08:00 Mercury at Greatest Elong: 22.5°E
- 17 03:00 Uranus at Opposition
- 17 12:00 Leonid Meteor Shower
- 17 19:30 R&DAS Monthly Meeting
- 20 21:07 Mars 2.4°S of Moon
- 23 01:28 LAST QUARTER MOON
- 23 19:30 Observing, Barby.
- 24 19:30 Observing, Barby.

Object of the Month for November



By Torben Hansen - File:M31 09-01-2011.jpg at <https://www.flickr.com/photos/>

The Andromeda Galaxy is a barred spiral galaxy and is the nearest major galaxy to the Milky Way. It was originally named the Andromeda Nebula and is catalogued as Messier 31, M31, and NGC 224. Andromeda has a diameter of about 152,000 light-years and is approximately 2.5 million light-years from Earth. The galaxy's name stems from the area of Earth's sky in which it appears, the constellation of Andromeda, which itself is named after the princess who was the wife of Perseus in Greek mythology.

Messier 32 (also known as M32 and NGC 221) is a dwarf "early-type" galaxy about 2,650,000 light-years from the Solar System, appearing in the constellation Andromeda. M32 is a satellite galaxy of the Andromeda Galaxy (M31) and was discovered by Guillaume Le Gentil in 1749.

Messier 110, or M110, also known as NGC 205, is a dwarf elliptical galaxy that is a satellite of the Andromeda Galaxy in the Local Group.

October Image of the Month



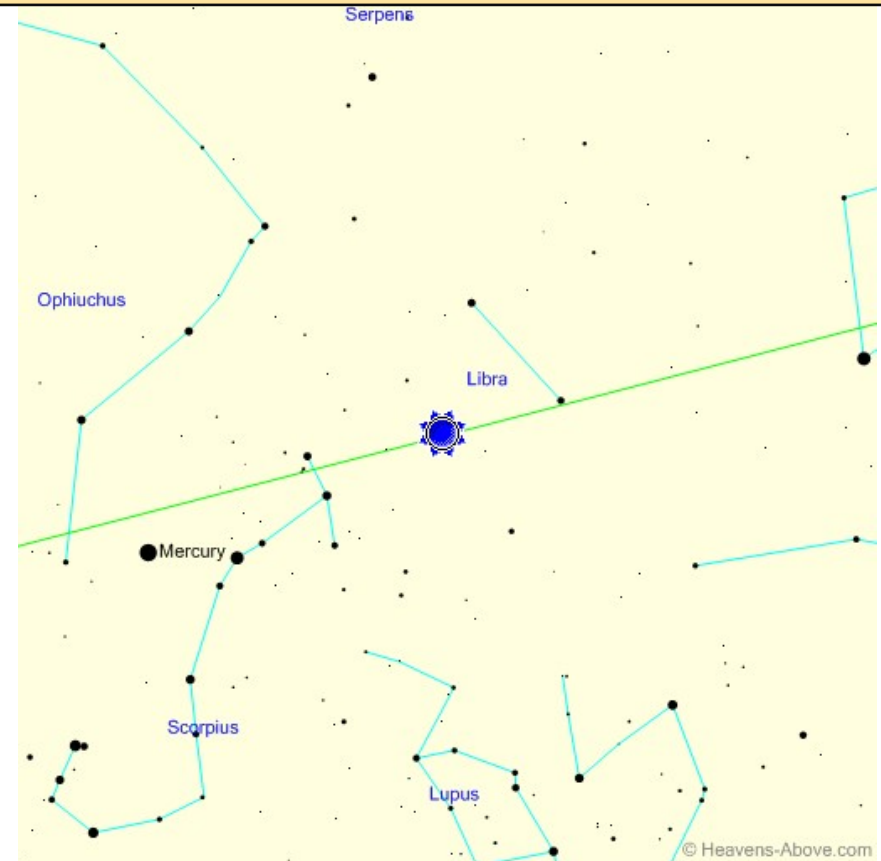
On the evening of 10th October and early morning of 11th October there was a large auroral event. Several members have taken excellent images (which will be shown at the next meeting).

But Gill Evans took a spectacular set of very nice ones, and this is one of them. Taken at 22:03:32.

Well done Gill!

Aurora over Northamptonshire, 10th October

The Sun, mid-November



Event	Time	Altitude	Azimuth
Astronomical twilight begins:	04:29	-18.0°	110°
Nautical twilight begins:	04:54	-12.0°	109°
Civil twilight begins:	05:19	-6.0°	109°
Sunrise:	05:41	-0.8°	109°
Maximum altitude:	11:45	71.3°	180°
Sunset:	17:48	-0.8°	251°
Civil twilight ends:	18:10	-6.0°	251°
Nautical twilight ends:	18:35	-12.0°	251°
Astronomical twilight ends:	19:01	-18.0°	250°
Minimum altitude:	23:45	-71.2°	180°

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

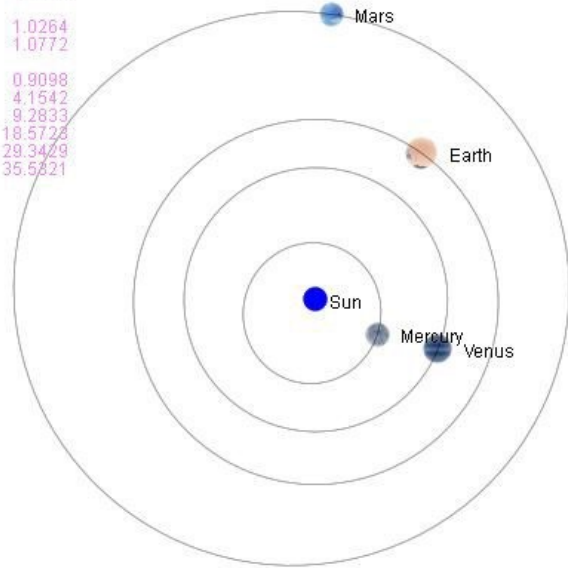
The Planets, mid November, 2024

Inner Solar System

2024-11-15 (UTC)

23h00m

	Sun	Earth
Mercury	0.3957	1.0264
Venus	0.7277	1.0772
Earth	0.9889	
Mars	1.5617	0.9098
Jupiter	5.0677	4.1542
Saturn	9.6443	9.2833
Uranus	19.5610	18.5723
Neptune	29.8955	29.3429
Pluto	35.1398	35.5321

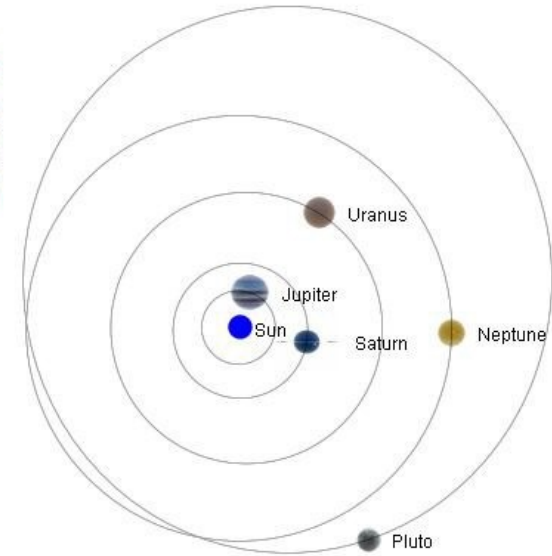


Outer Solar System

2024-11-15 (UTC)

23h00m

	Sun	Earth
Mercury	0.3957	1.0264
Venus	0.7277	1.0772
Earth	0.9889	
Mars	1.5617	0.9098
Jupiter	5.0677	4.1542
Saturn	9.6443	9.2833
Uranus	19.5610	18.5723
Neptune	29.8955	29.3429
Pluto	35.1398	35.5321



	Mercury	Venus	Mars	Jupiter	Saturn	Uranus	Neptune
Right ascension	13h 53m 34.6s	15h 31m 39.0s	7h 32m 0.3s	5h 20m 48.1s	23h 1m 29.6s	3h 35m 44.2s	23h 53m 4.9s
Declination	-11° 47' 5"	-20° 3' 12"	22° 37' 55"	22° 24' 37"	-8° 36' 15"	19° 2' 11"	-2° 11' 39"
Range (AU)	1.409	1.285	1.147	4.482	8.849	18.741	28.98
Elongation from Sun	9.4°	34.3°	90.0°	120.2°	142.0°	145.0°	156.3°
Brightness	-0.6	-3.9	0.3	-2.4	0.7	5.6	7.8
Equatorial Diameter	4.78"	12.99"	8.16"	43.99"	18.78"	3.76"	2.36"
Phase Angle	21.0°	50.6°	41.0°	9.8°	3.6°	1.7°	0.8°
Constellation	Virgo	Libra	Gemini	Taurus	Aquarius	Taurus	Pisces
Meridian transit	12:20	13:58	05:59	03:48	21:26	02:03	22:17
Rises	06:20	07:58	23:57	21:45	15:27	20:00	16:18
Sets	18:21	19:59	11:58	09:47	03:29	08:02	04:20
Altitude	35.7°	11.3°	43.4°	14.1°	-76.5°	-10.4°	-66.6°
Azimuth	104.6°	110.5°	302.0°	293.1°	230.1°	289.4°	264.5°