

M66, a member of the Leo Triplet (Leo)

Continuing a series of photograph's of the Messier Objects



By ESO - <http://www.eso.org/public/images/eso0338c/>, CC BY 4.0, <https://commons.wikimedia.org/w/index.php?curid=6651180>

Rugby & District Astronomical Society

www.rugbyastro.org.uk

Honorary President :	-	Chair:	Chris Longthorn
Treasurer:	Dennis Osborne	Secretary:	Richard Heath
Speakers Secretary:	Roland Clarke	Membership Secretary:	Dave Hopkinson
Webmaster :	David Riley	Sky Notes:	Chris Longthorn

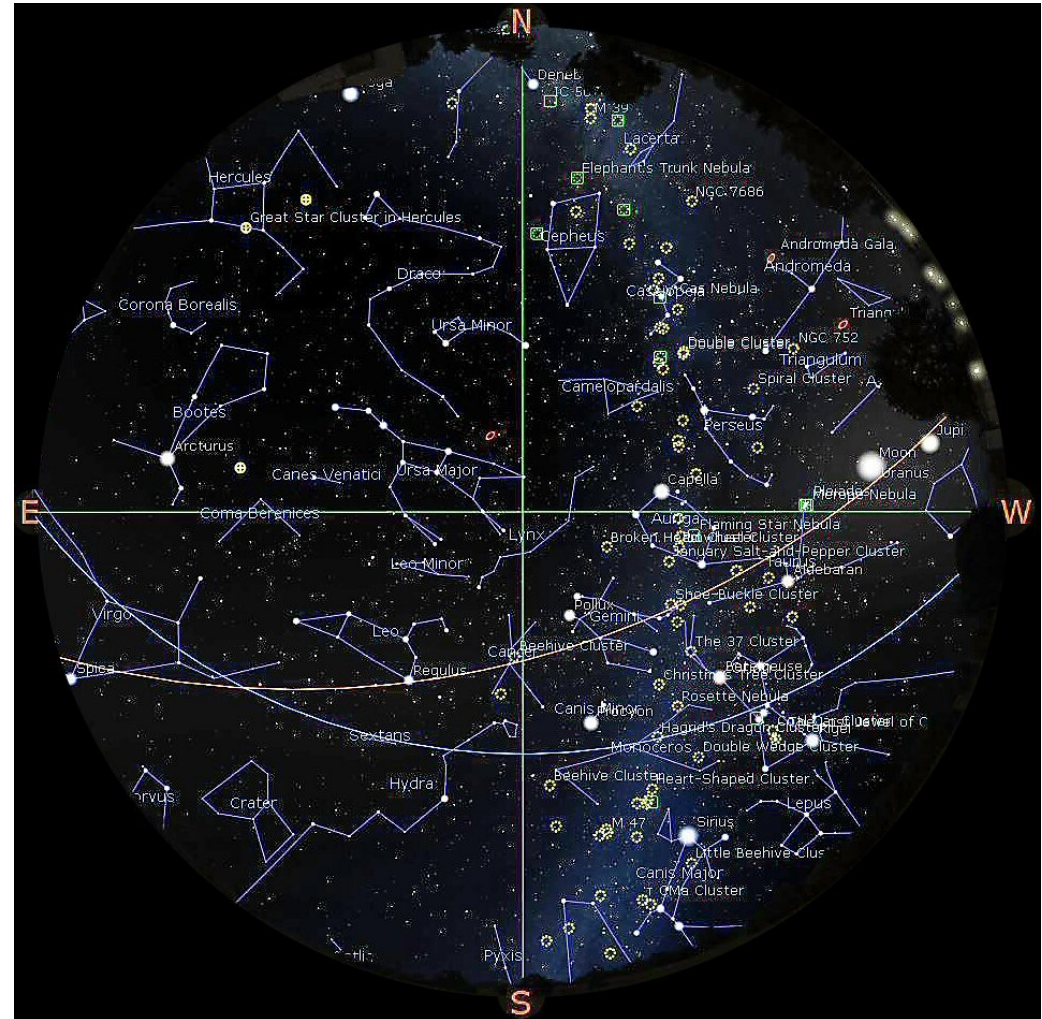
E-Mail: rugby-astro@hotmail.co.uk

©R&DAS 2024

Rugby & District Astronomical Society

Monthly Sky Notes

No. 170, February 2024, by Chris Longthorn



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

Sky Events for February 2024

- 02 23:18 LAST QUARTER MOON
- 03 19:00 Observing at Barby
- 04 19:00 Observing at Barby
- 08 06:30 Mars 4.2°N of Moon
- 09 22:59 NEW MOON
- 11 00:37 Saturn 1.8°N of Moon
- 15 08:15 Jupiter 3.2°S of Moon
- 16 15:01 FIRST QUARTER MOON
- 16 19:00 Observing at Barby 52% Moon
- 16 19:13 Pleiades 0.6°N of Moon
- 17 19:00 Observing at Barby 52% Moon
- 18 19:30 R&DAS Monthly Meeting
- 22 05:43 ISS, 50°, SSE
- 22 09:00 Venus 0.6°N of Mars
- 23 06:30 ISS, 79°, S
- 24 05:41 ISS, 72°, S
- 24 12:30 FULL MOON
- 25 04:52 ISS, 60°, SSE
- 25 06:29 ISS, 78°, S
- 26 05:40 ISS, 81°, S
- 27 04:51 ISS, 77°, S
- 28 05:38 ISS, 73°, S
- 28 08:00 Mercury at Superior Conjunction
- 28 21:00 Saturn in Conjunction with Sun
- 29 04:49 ISS, 80°, S

January Image of the Month



Received at the end of December, but taken on 9th September 2023.

Rick said - In these cloudy and rainy rains I have tried processing this photo of NGC 6781 the Snowball Nebula. This is a 25 minute integration taken on September 9th which was plagued with a large amount of colour noise (which I have now removed the majority of.)

NGC 6781 is a planetary nebula located in the equatorial constellation of Aquila, about 2.5° east-northeast of the 5th magnitude star 19 Aquilae. It was discovered July 30, 1788 by the Anglo-German astronomer William Herschel. The nebula lies at a distance of 1,500 ly from the Sun .

Object of the Month for February



The **Beehive Cluster** (also known as **Praesepe** (Latin for "manger" or "crib"), **M44**, **NGC 2632**, or **Cr 189**), is an open cluster in the constellation Cancer. One of the nearest open clusters to Earth, it contains a larger population of stars than other nearby bright open clusters holding around 1,000 stars. Under dark skies, the Beehive Cluster looks like a small nebulous object to the naked eye, and has been known since ancient times.

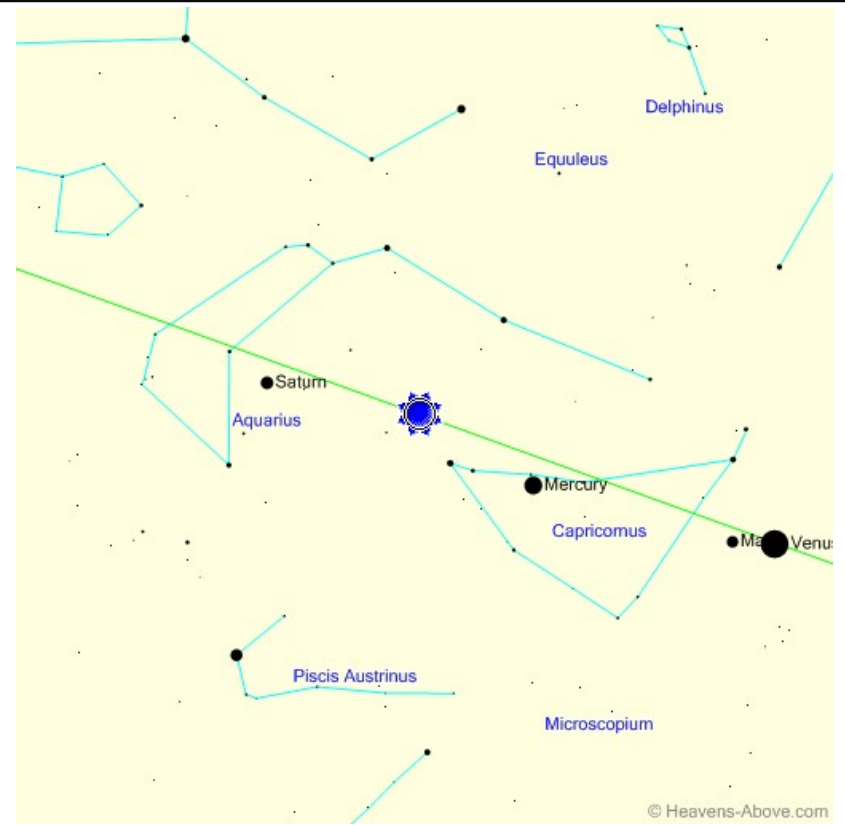
Age and proper motion coincide with those of the Hyades, suggesting they may share similar origins. Both clusters also contain red giants and white dwarfs, which represent later stages of stellar evolution, along with many main sequence stars.

Distance to M44 is often cited to be between 160 and 187 parsecs (520–610 light years), but the revised Hipparcos parallaxes (2009) for Praesepe members and the latest infrared colour-magnitude diagram favours an analogous distance of 182 pc. There are better age estimates of around 600 million years (compared to about 625 million years for the Hyades). The diameter of the bright inner cluster core is about 7.0 parsecs (23 light years).

At 1.5° across, the cluster easily fits within the field of view of binoculars or low-powered small telescopes

All data courtesy of Beehive Cluster - Wikipedia

The Sun, mid-February



Event	Time	Altitude	Azimuth
Minimum altitude:	00:19	-50.5°	360°
Astronomical twilight begins:	05:28	-18.0°	88°
Nautical twilight begins:	06:07	-12.0°	96°
Civil twilight begins:	06:47	-6.0°	103°
Sunrise:	07:22	-0.8°	110°
Maximum altitude:	12:20	24.9°	180°
Sunset:	17:17	-0.8°	250°
Civil twilight ends:	17:53	-6.0°	257°
Nautical twilight ends:	18:32	-12.0°	265°
Astronomical twilight ends:	19:12	-18.0°	273°

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

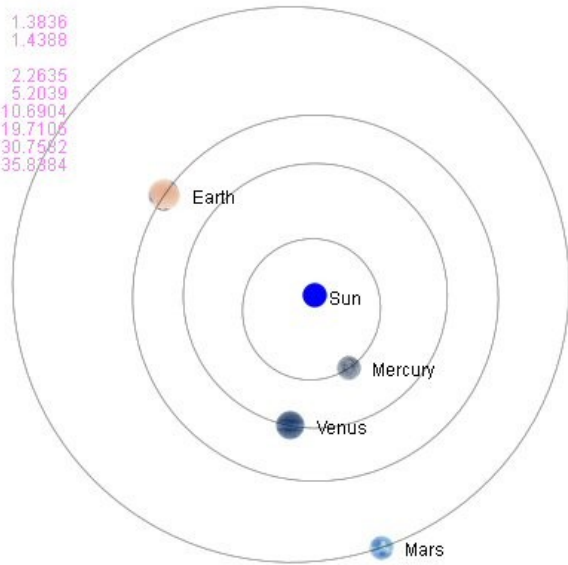
The Planets, mid February, 2024

Inner Solar System

2024-02-15 (UTC)

23h00m

	Sun	Earth
Mercury	0.4426	1.3836
Venus	0.7263	1.4388
Earth	0.9878	
Mars	1.4270	2.2635
Jupiter	4.9942	5.2039
Saturn	9.7248	10.6904
Uranus	19.6061	19.7105
Neptune	29.9026	30.7582
Pluto	34.9539	35.8384

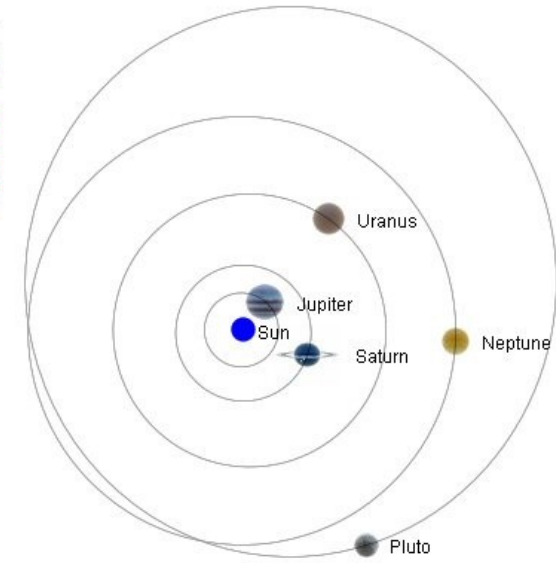


Outer Solar System

2024-02-15 (UTC)

23h00m

	Sun	Earth
Mercury	0.4426	1.3836
Venus	0.7263	1.4388
Earth	0.9878	
Mars	1.4270	2.2635
Jupiter	4.9942	5.2039
Saturn	9.7248	10.6904
Uranus	19.6061	19.7105
Neptune	29.9026	30.7582
Pluto	34.9539	35.8384



	Mercury	Venus	Mars	Jupiter	Saturn	Uranus	Neptune
Right ascension	21h 20m 5.2s	20h 3m 45.1s	20h 16m 54.0s	2h 26m 52.1s	22h 40m 36.8s	3h 6m 12.1s	23h 46m 55.6s
Declination	-17° 43' 31"	-20° 29' 29"	-20° 42' 20"	13° 30' 29"	-10° 6' 42"	17° 10' 9"	-2° 44' 36"
Range (AU)	1.384	1.439	2.263	5.204	10.69	19.71	30.758
Elongation from Sun	9.7°	27.6°	24.7°	72.4°	11.6°	82.5°	29.5°
Brightness	-0.7	-3.8	1.3	-2.1	1	5.8	7.9
Equatorial Diameter	4.86"	11.60"	4.14"	37.88"	15.55"	3.58"	2.22"
Phase Angle	22.1°	39.1°	16.8°	10.9°	1.2°	2.9°	0.9°
Constellation	Capricornus	Sagittarius	Capricornus	Aries	Aquarius	Aries	Pisces
Meridian transit	11:43	10:27	10:41	16:51	13:05	17:30	14:12
Rises	07:21	06:23	06:39	09:40	08:00	09:57	08:27
Sets	16:04	14:30	14:43	00:06	18:11	01:07	19:56
Altitude	-54.3°	-57.5°	-58.1°	9.2°	-40.9°	18.0°	-26.7°
Azimuth	342.1°	14.5°	8.8°	280.3°	317.9°	275.0°	304.4°