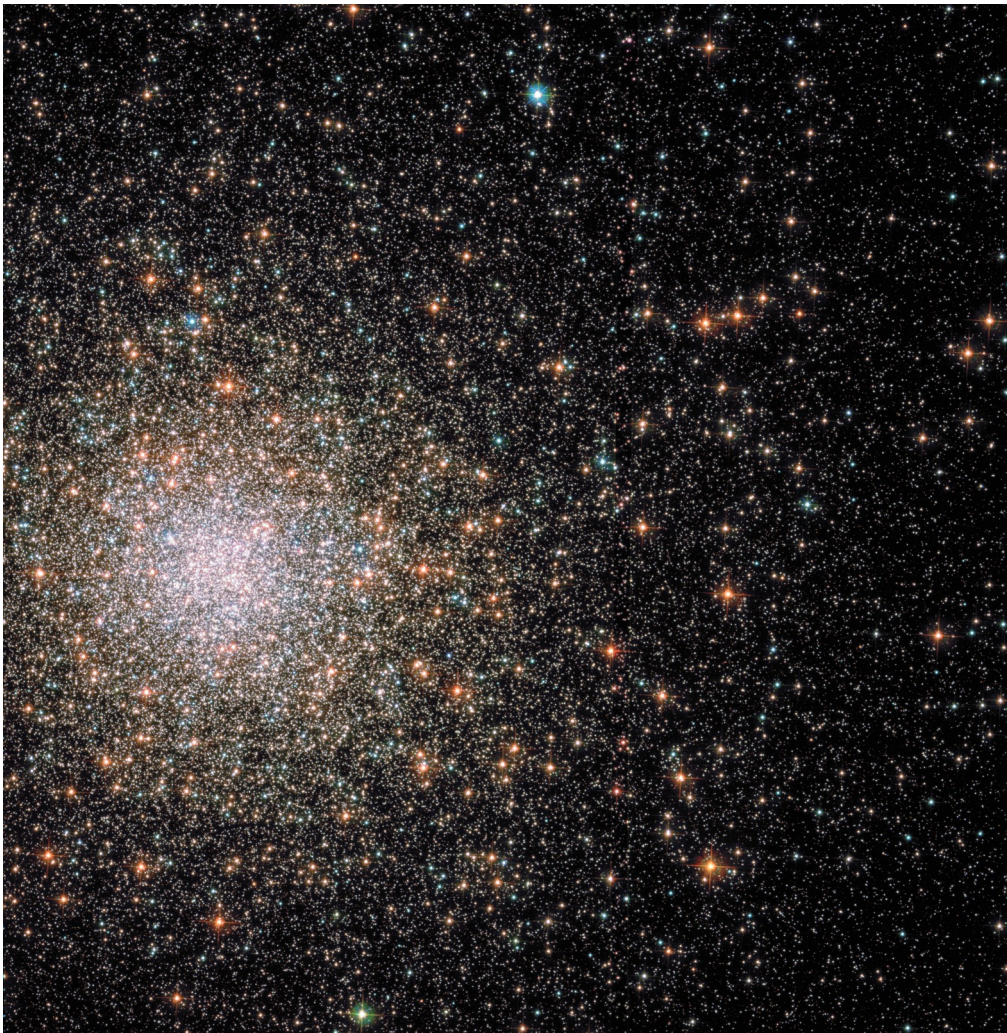


M62, Globular Cluster (Ophiuchus)

Continuing a series of photograph's of the Messier Objects.



<https://www.spacetelescope.org/images/potw1915a/> <https://cdn.spacetelescope.org/archives/images/large/potw1915a.jpg>

Rugby & District Astronomical Society

www.rugbyastro.org.uk

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Webmaster:	David Riley	Secretary:	Richard Heath
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Email rugby-Astro@hotmail.co.uk

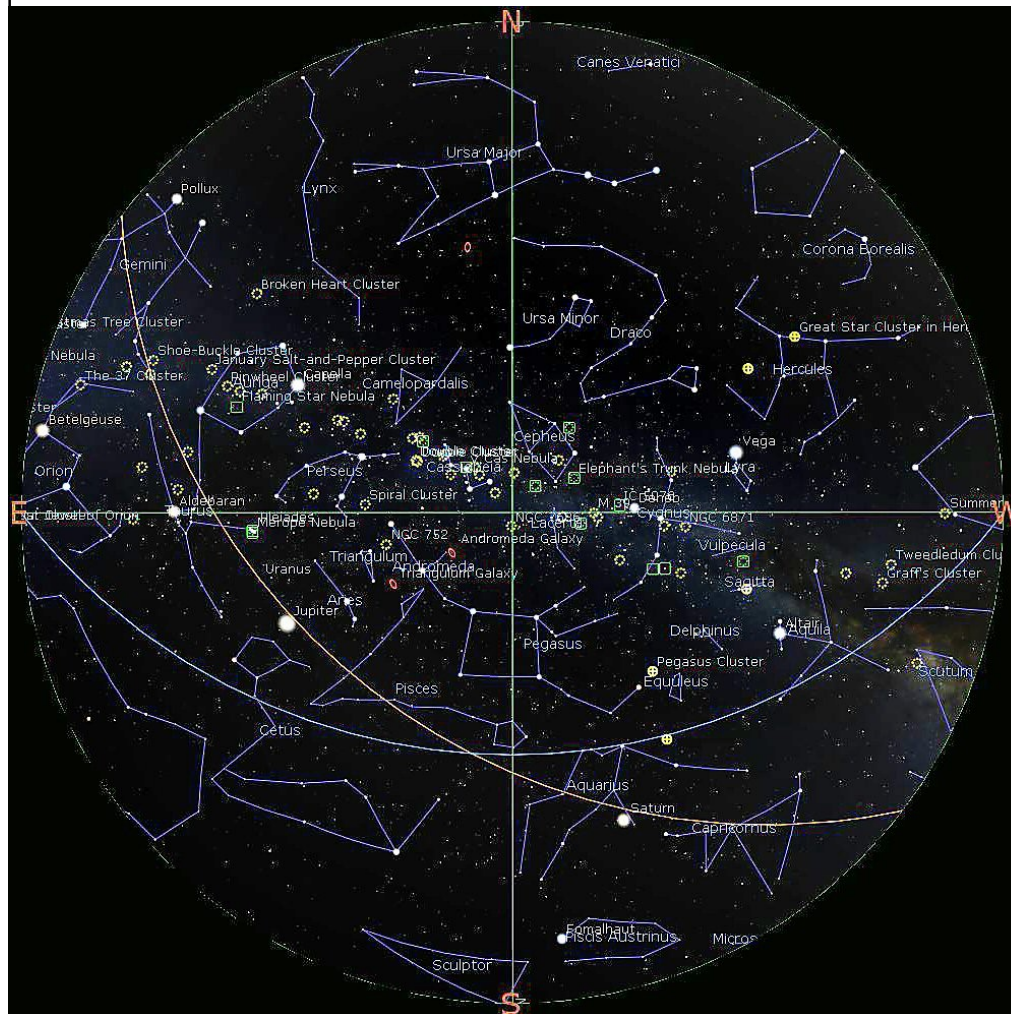
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Rugby & District Astronomical Society

Sky Notes

by Chris Longthorn

October 2023, no 166



The night sky at 23:00 U.T.C., October 15th 2023

Sky Events for October 2023

02 03:16 Jupiter 3.4°S of Moon
03 04:25 Pleiades 1.1°N of Moon
06 13:48 LAST QUARTER MOON
14 17:55 NEW MOON
14 17:59 Annular Solar Eclipse; mag=0.952
20 05:00 Mercury at Superior Conjunction
22 00:00 Orionid Meteor Shower
22 03:29 FIRST QUARTER MOON
23 22:00 Venus at Greatest Elong: 46.4°W
24 06:56 ISS, -3.4, 60°, SSE
24 07:52 Saturn 2.8°N of Moon
25 06:07 ISS, -3.1, 47°, SSE
26 06:53 ISS, -3.7, 77°, S
27 06:03 ISS, -3.7, 68°, SSE
28 06:50 ISS, -3.8, 80°, S
28 20:14 Partial Lunar Eclipse; mag=0.122
28 20:24 FULL MOON
29 08:10 Jupiter 3.1°S of Moon
29 05:00 ISS, -3.9, 80°, S
30 05:47 ISS, -3.7, 67°, SSW
30 14:30 Pleiades 1.1°N of Moon
31 04:57 ISS, -3.9, 76°, S

Bit of space to use for something else.

This edition is a bit of an experimental expansion and I haven't decided yet what to put here. So if anyone has any ideas at the next meeting please let me know.

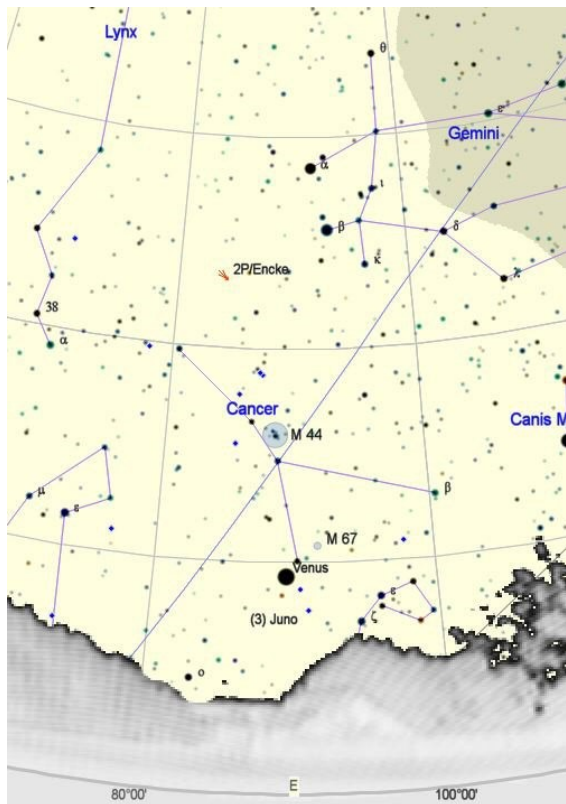
I could use it as an area for,

1. Members images of the month (have room for more than one).
2. A list of local society meeting dates
3. A list of upcoming BAA meetings
4. Breaking astronomy or space news
5. A rant about light pollution/satellites
6. Etc....

Also let me know at the next meeting how you feel about the expansion, is it a good thing? Is it too much information? Is it too little?

Object of the moment—Comet 2P/Encke

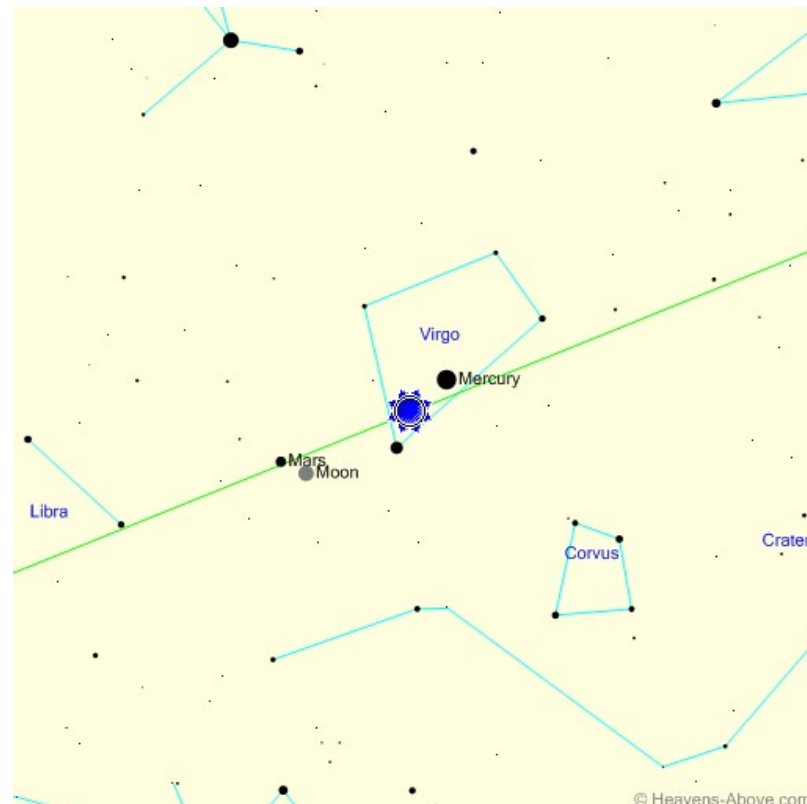
Note, this data applies to 17th September at 5:00 a.m. BST, i.e. the date of the next meeting. This view is from my back garden.



Position	
Right ascension	8h 19.5m
Declination	30° 26'
Constellation	Cancer
Distance from Earth	0.923 AU
Last observed magnitude	12.9
Date of last reported observation	2023-Aug-31
Altitude	26.4°
Azimuth	74° (ENE)
Angular separation from Sun	54.3°

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

The Sun, mid October



Event	Time	Altitude	Azimuth
Minimum altitude:	00:51	-46.0°	360°
Astronomical twilight begins:	05:36	-18.0°	80°
Nautical twilight begins:	06:16	-12.0°	88°
Civil twilight begins:	06:55	-6.0°	96°
Sunrise:	07:30	-0.8°	103°
Maximum altitude:	12:51	29.1°	180°
Sunset:	18:11	-0.8°	257°
Civil twilight ends:	18:45	-6.0°	264°
Nautical twilight ends:	19:25	-12.0°	271°
Astronomical twilight ends:	20:04	-18.0°	279°

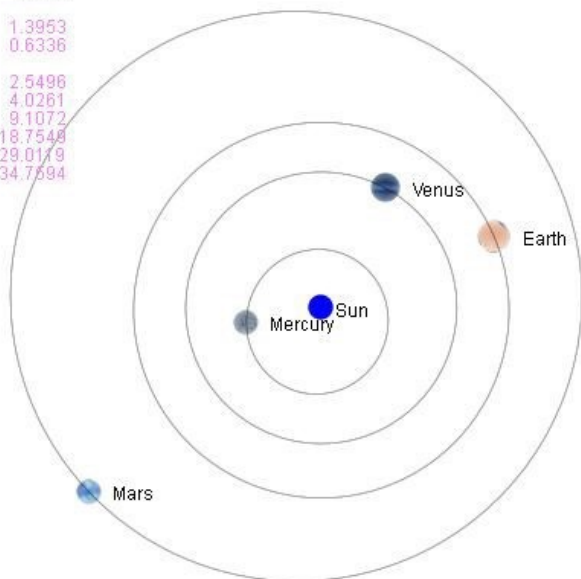
All data courtesy of Heavens-Above (www.heavens-above.com)

The Planets, mid October

Inner Solar System

2023-10-15 (BST)

	Sun	Earth
Mercury	0.4039	1.3953
Venus	0.7217	0.6336
Earth	0.9972	0.6336
Mars	1.5784	2.5496
Jupiter	4.9717	4.0261
Saturn	9.7594	9.1072
Uranus	19.6257	18.7549
Neptune	29.9057	29.0119
Pluto	34.8709	34.7594



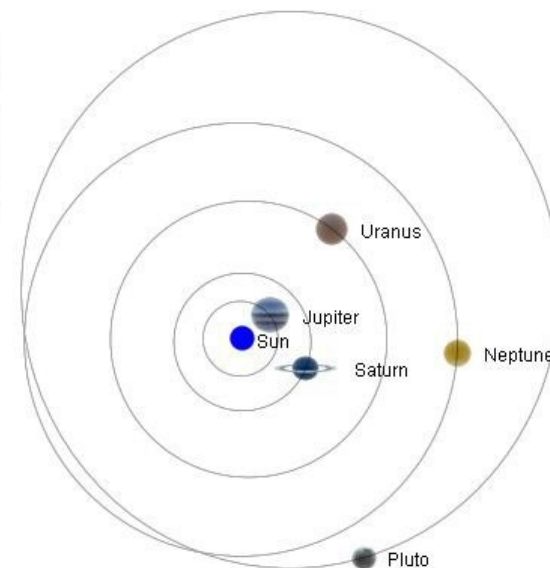
23h00m

2023-10-15 (BST)

	Sun	Earth
Mercury	0.4039	1.3953
Venus	0.7217	0.6336
Earth	0.9972	0.6336
Mars	1.5784	2.5496
Jupiter	4.9717	4.0261
Saturn	9.7594	9.1072
Uranus	19.6257	18.7549
Neptune	29.9057	29.0119
Pluto	34.8709	34.7594

Outer Solar System

23h00m



	Mercury	Venus	Mars	Jupiter	Saturn	Uranus	Neptune
Right ascension	13h 11m 33.7s	10h 28m 49.8s	14h 0m 25.6s	2h 42m 14.1s	22h 12m 49.0s	3h 18m 5.5s	23h 44m 32.6s
Declination	-6° 15' 43"	8° 26' 4"	-12° 2' 24"	14° 15' 10"	-12° 56' 52"	17° 55' 1"	-3° 3' 45"
Range (AU)	1.395	0.634	2.55	4.026	9.107	18.755	29.012
Elongation from Sun	3.3°	46.2°	10.3°	159.4°	128.5°	150.1°	153.2°
Brightness	-1.3	-4.3	1.6	-2.7	0.6	5.6	7.8
Equatorial Diameter	4.82"	26.34"	3.67"	48.97"	18.25"	3.76"	2.35"
Constellation	Virgo	Leo	Virgo	Aries	Aquarius	Aries	Pisces
Meridian transit	12:38:00	09:57:00	13:29:00	02:14:00	21:41:00	02:50:00	23:13:00
Rises	07:09:00	03:12:00	08:33:00	18:54:00	16:52:00	19:08:00	17:30:00
Sets	18:08:00	16:42:00	18:25:00	09:30:00	02:35:00	10:28:00	05:00:00
Altitude	-39.5°	-27.7°	-39.9°	36.4°	22.5°	34.3°	34.5°
Azimuth	327.0°	17.6°	309.6°	117.1°	200.8°	105.9°	176.1°