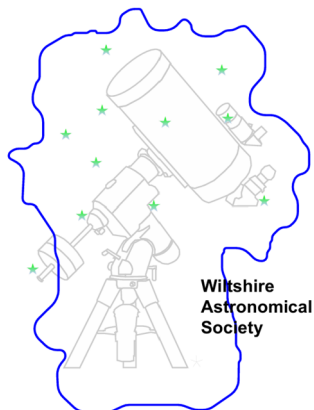


WAS News November 2024

Newsletter for the Wiltshire Astronomical Society



Wiltshire AS Contacts

Chairperson: Simon Barnes

Newsletter/Publicity : Simon Barnes

Treasurer and Membership: Sam Franklin

Speaker secretary: Position Vacant

Observing Sessions coordinators: Chris Brooks, Jon Gale,

Web coordinator: Sam Franklin

Contact the Society here:

Email: contact@wasnet.org.uk

Website url: <https://wasnet.org.uk/>

Follow our Facebook Page <https://www.facebook.com/Wiltshire-Astronomical-Society-154077261327030/>

Join the members only Facebook Group: <https://www.facebook.com/groups/wiltshire.astro.society/>

Committee Page:

<https://wasnet.org.uk/committee/>

Upcoming Observing Session

Observing Sessions

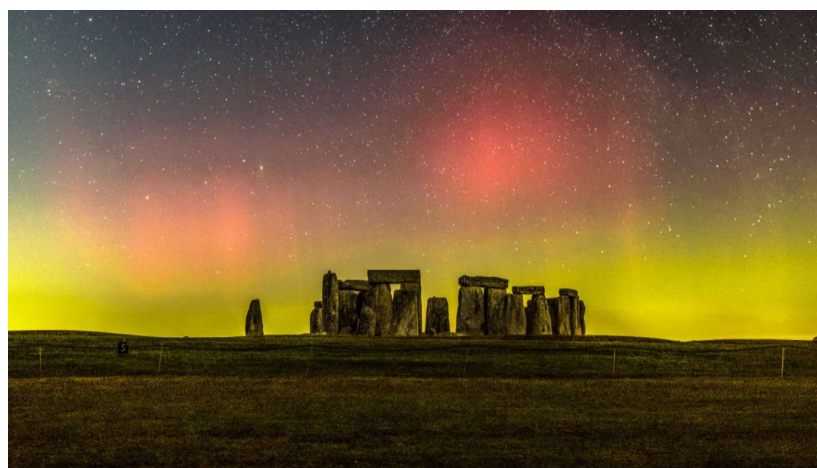
Prime Session Friday 22nd November
Back Up Friday 29th November

Start time 20:00 Hrs.

Please look out for a confirmation email from Chris that the session is either ON or OFF

Location:

Red Lion Pub carpark SN15 2LQ
W3W - airbag.shudders.losing



Aurora Borealis Shines Over Wiltshire

Report from the Chair

With a membership of around 40 members, there is a committee of 3 that work in their spare time to take care of the running of the Society. Sometimes that spare time runs short to keep on top of things. Therefore once again, I appeal to the membership for volunteers to help. First of all we really need a person to be speaker secretary. I'm sure the speakers we invite are all enjoyed whether they are on Zoom or at the hall meetings, to keep this enjoyment going please think about volunteering your time for this vital role.

We still need to make a decision whether we become a zoom only Society or whether we keep hall meetings going. Personally, I enjoy the social aspect of the hall meetings, which is somewhat absent from zoom. In the near future, the committee will issue a survey to cover this aspect and others.

It has been suggested if a society trip could be planned for the future. These trips are a great way to meet and get to know other members more. We have done this in the past with visits to the Norman Lockyer Observatory, The National Space Centre, Jodrell Bank and others. Is this something members would like again?

We have other ideas about WAS going forward under discussion and the committee will meet to decide on these and report back accordingly.

..Simon Barnes..

Upcoming Speakers:

5th November 2024 **So You Want To Buy A Telescope.** Simon Barnes
3rd December 2024 **Globular Clusters.** Owen Brazell
7th January 2025 **Spectroscopy.** Hugh Allen

****Interested in Joining the Society? See <https://membermojo.co.uk/was/>

October 1st Meeting Report

We had a nice turn out for this Zoom meeting with 20 people logging in. Thank you to Sam for acting as Zoom host. As well as our regular members, we welcomed some new faces. Some of the new attendees had already attended the last observing session. Although we had some audio issues, Martin Griffiths presented a fascinating look into habitable zone theory as well as discussing Exoplanets. There were some equations were thrown in but these were far and few between and did not prevent a detailed understanding of how the theories worked to determine a habitable zone around a given star.

Martin pointed out that most of our ideas of course I based on human centric life.

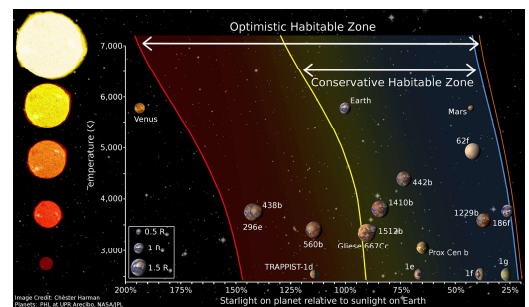
There was nice overview of Exoplanets and how they might fit into habitable zones, with some artist impressions to give some imagined ideas how they might look if we were able send a vehicle there.. the exoplanet discovered around Barnards Star would take a typical human lifetime to reach at 10% of the speed of light. Maybe one day with improved propulsion systems that could be shortened. In the meantime with ever improving telescopes and technology we glean more data from existing Exoplanets and continue to discover new ones.

A short Q & A followed.

We thank Martin Griffiths for this presentation and accepting the task at short notice.

Chris clarified the observing session dates, and then the meeting was closed.

Thank you to all for your attendance and we look forward to seeing as many as possible to next meeting at Seend.



November 2024 Hall Speaker: Simon Barnes

Topic: "So You Want To Buy a Telescope"

My interest in Astronomy and space began about 58 years ago watching the early Gemini space missions and later by finding a copy of the Observers Book of Astronomy written by Patrick Moore. It wasn't until I was 12 that I was given the gift of a small refractor that he began looking at the night sky and searching out the constellation and stars that I had read about. I also became more interested in spaceflight as the moon landings ramped up. The engineering of Apollo spacecraft also became a secondary fascination.

I constructed a truss design 10" Dobsonian telescope in 2003, and now also use Celestron 9.25" on a NEQ6 Pro mount and 6SE Nexstar Schmidt Cassegrain telescopes. After spending a couple of years as a member of the Newbury Astronomical Society, I was the founding member of the Wiltshire Astronomical Society after placing an Ad in Astronomy Now around 1995 and was Chair for the first 10 years. I was Vice Chair for the now disbanded Beckington Astronomical Society.

I have given numerous talks about the Apollo Lunar Landings, Stars and their light, Gravity in the Solar System among many other topics.

Observing Session 25th October.

A decision was made in all good faith, based on weather reports, to go ahead with this session, sadly we were caught out by a change in the weather and we were faced with a cloud covered sky at Lacock. For those that attended, I know its disappointing, but this is the situation sometimes. The session before we had a clear sky! Hopefully, that is what the November session will be like. Clear Skies to All.....

Moon Phases for November – with rise and set times.

November 2024						
Sun	Mon	Tues	Wed	Thur	Fri	Sat
27	28	29	30	31	1	2
Sun: 07:56 17:52 Moon: 02:14 18:28	Sun: 08:57 18:50 Moon: 02:25 15:38	Sun: 06:59 16:48 Moon: 03:35 15:48	Sun: 07:01 18:48 Moon: 04:44 15:55	Sun: 07:03 18:44 Moon: 05:55 18:05	Sun: 07:05 18:42 Moon: 07:07 18:18 New Moon,12:49	Sun: 07:08 18:41 Moon: 08:21 18:38
3	4	5	6	7	8	9
Sun: 07:08 18:39 Moon: 09:38 18:59	Sun: 07:10 18:37 Moon: 10:50 17:34	Sun: 07:12 18:35 Moon: 11:55 18:22	Sun: 07:13 18:34 Moon: 12:48 19:26	Sun: 07:15 18:32 Moon: 13:24 20:43	Sun: 07:17 18:31 Moon: 13:51 22:07	Sun: 07:19 18:29 Moon: 14:10 23:33 First Qtr.,05:57
10	11	12	13	14	15	16
Sun: 07:21 18:27 Moon: 14:25 ----	Sun: 07:22 18:26 Moon: 14:39 00:59	Sun: 07:24 18:24 Moon: 14:51 02:26	Sun: 07:26 18:23 Moon: 15:05 03:55	Sun: 07:27 18:22 Moon: 15:20 05:27	Sun: 07:29 18:20 Moon: 15:41 07:01 Full Moon,21:31	Sun: 07:31 18:19 Moon: 16:10 08:36
17	18	19	20	21	22	23
Sun: 07:33 18:18 Moon: 18:52 10:04	Sun: 07:34 18:18 Moon: 17:51 11:18	Sun: 07:36 18:15 Moon: 19:04 12:07	Sun: 07:38 18:14 Moon: 20:24 12:41	Sun: 07:39 18:13 Moon: 21:44 13:05	Sun: 07:41 18:12 Moon: 23:00 13:21	Sun: 07:42 18:11 Moon: ---- 13:34 Last Qtr.,01:29
24	25	26	27	28	29	30
Sun: 07:44 18:10 Moon: 00:12 13:44	Sun: 07:45 18:09 Moon: 01:23 13:54	Sun: 07:47 18:08 Moon: 02:32 14:03	Sun: 07:48 18:07 Moon: 03:42 14:13	Sun: 07:50 18:07 Moon: 04:53 14:25	Sun: 07:51 18:06 Moon: 06:07 14:41	Sun: 07:53 18:05 Moon: 07:24 15:03
1	2	3	4	5	6	7
Sun: 07:54 18:05 Moon: 08:38 15:34 New Moon,08:23	Sun: 07:55 18:04 Moon: 09:47 16:18	Sun: 07:57 18:04 Moon: 10:43 17:19	Sun: 07:58 18:03 Moon: 11:25 18:33	Sun: 07:59 18:03 Moon: 11:55 19:55	Sun: 08:00 18:02 Moon: 12:18 21:20	Sun: 08:02 18:02 Moon: 12:32 22:44

November Meteor Showers

Northern Taurids - A meteor shower, related to Comet Encke, that produces a lowish but broad activity peak in the mid autumn. They tend to be slow moving ~ 30km/hr. This can be helpful for catching on camera! Approx 5—10 meteors/hr could be seen, the peak occurring on 12-13 November. Best rates will occur most likely in the middle of the night.

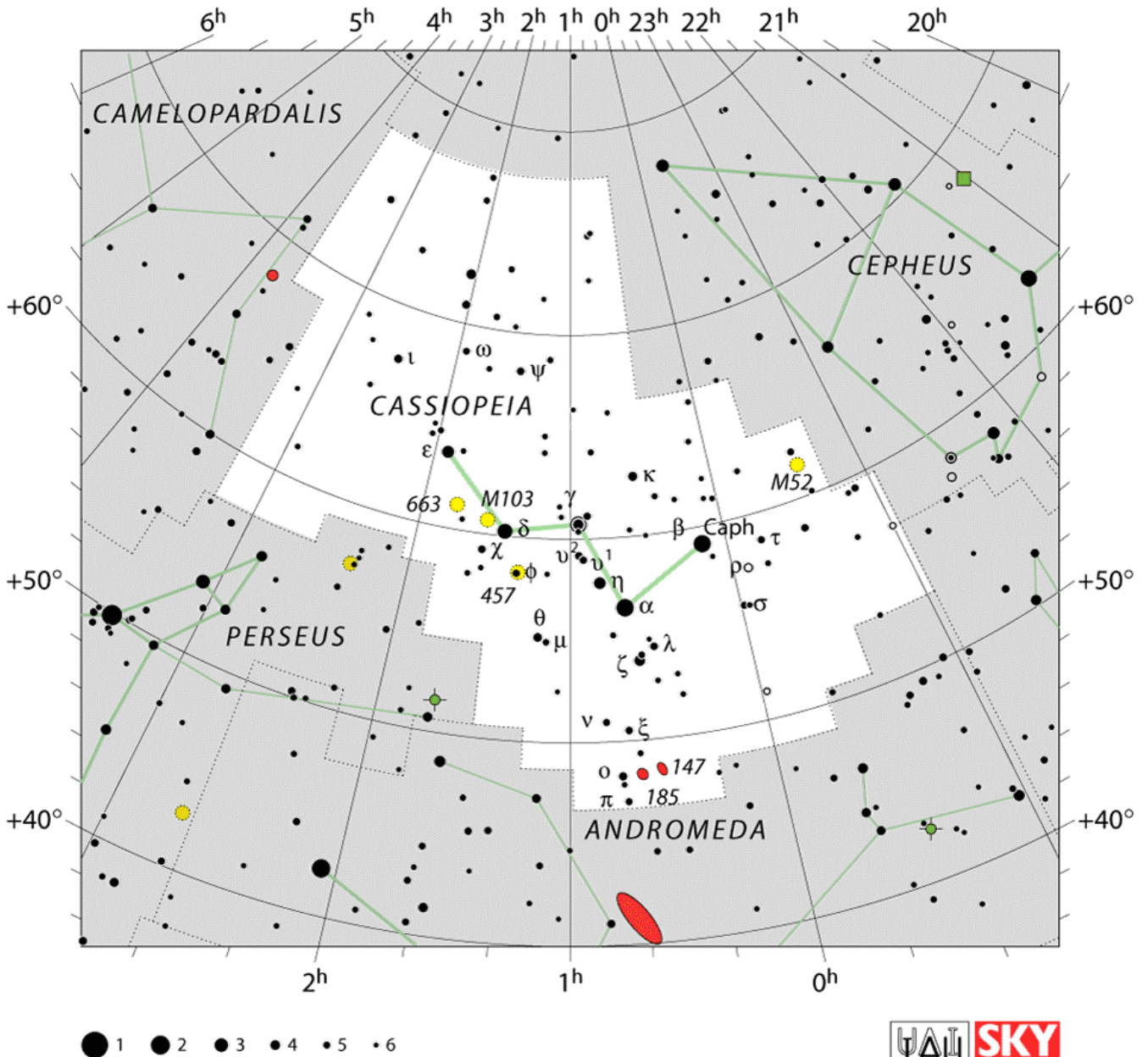
Leonids - Arises from Comet 55P/Tempel-Tuttle. These a fairly bright fast moving, with rates of approximately 10/hour. The peak occurs on 18 November a few days after full moon (15th), making it difficult to spot the less bright meteors and generally polluting visibility..

Every 33 years the Leonids produces a storm, in the past these were in 1799, 1833, 1866, 1966 and 1999-2001. The 1833 storm was spectacular giving rates in the order of 100,000/hr. The 1999—2001 storm produces rates of about 3000/hr.

The next storm is expected in 2030..... Time will tell how spectacular that will be!

Constellation of the Month

Cassiopeia



Cassiopeia

Named after the vain and boastful queen in Greek mythology. Nicknamed the W constellation, Cassiopeia is easily recognizable for the prominent 'W' asterism formed by its five brightest stars.

Two open clusters M52 and M103 are nice binocular objects or with low power in a telescope with apparent magnitudes of 7.3 and 7.4 respectively. They are open clusters. M52 sits near the border to Cepheus with the Bubble Nebula nearby. Charles Messier listed M103 as the last object in his catalogue. (The final seven Messier objects were added by other astronomers based on Messier's and Méchain's observations).

The Bubble Nebula (NGC 7635, C11) is a large emission nebula located between 7,100 and 11,000 light-years away. The H II region appears near the border with Cepheus, in the same area as Messier 52. It has an apparent magnitude of 10. The bubble that gives NGC 7635 its name is created by the strong stellar wind of the central star SAO 20575 (BD+60° 2522). Rob Lucas has submitted a nice photo of it and can be seen in the Observing logs on page 8 this newsletter.

The Owl Cluster (NGC 457) is a bright open cluster with apparent magnitude 6.5 visible with binoculars and small telescopes. Its distinctive appearance has earned it the nicknames the Owl Cluster, the E.T. Cluster, and the Dragonfly Cluster.

The Pacman Nebula (NGC 281) is an emission nebula within a larger H II region with an apparent magnitude of 7.4 and has been nicknamed the Pacman Nebula because its shape resembles the popular 1980s video game character. The nebula can be spotted in small telescopes in good conditions.

Caroline's Rose Cluster (NGC 7789) is an open cluster with an apparent magnitude of 6.7, it is easily visible in binoculars or small telescopes.

There are a number of other open star clusters and photographic targets in Cassiopeia worthy of viewing and imaging.

Suggested planetarium programs:

Stellarium <https://stellarium.org> (Free)

Carte du Ciel <http://www.ap-i.net/skychart/en/download> (Free)

There are several other free programs and a quick google search will find these for you. As well as these you can also find programs that require payment e.g., 'TheSky' from Software Bisque.

Most programs allow you to connect your telescope and control it from within the program.



IC63 in Cassiopeia

Pacman Nebula
NGC281



Owl Cluster
NGC 457



Sasho

Planets for November 2024

Mercury- reaches Greatest Eastern Elongation (GEE) from the sun on the 15th November. For a week or so either side of this date the Planet may be caught skirting the south-west shortly after sunset. At GEE it will shine at magnitude -0.23 but will appear dimmer than this due to the volume of atmosphere its light must pass through to reach us.

Venus- will also be visible in the low in the evening sky, but better than Mercury. The second half of November will provide a better showing as it rises higher (above 10° altitude) in the south west sky and will shine at -4.2 magnitude with a 68% illuminated phase.

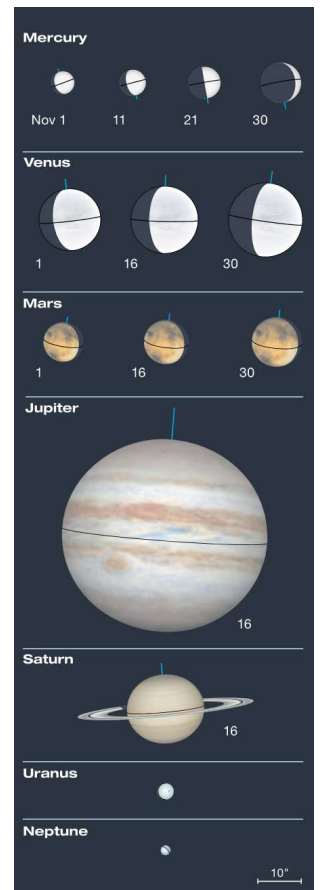
Mars- rises nearby the constellation of Cancer late evening by mid month. With a size nearing 11 arc seconds, surface detail should be visible to observers.

Jupiter- heads to opposition in early December. During November it will shine at ~-2.5 magnitude as it rises higher in the sky, look for Jupiter in the constellation of Taurus. The disc of the planet is always rewarding with a telescope, not only the cloud belts and the Great Red Spot, but also for the four Galilean moons. It's a good time of year to observe Jupiter.

Saturn- the rings are beginning to close, and sit at 5.2⁰. The planet brightness is reducing as well as apparent size. The rings will have closed completely by spring next year, so take advantage to see them this winter. The magnitude will be ~ +0.7 during the month. It is located in the constellation of Aquarius and can be seen as the sunset fades away in the SE.

Uranus- will be sitting 4.4° south of the moon on 16th November. With a magnitude of +5.6 and apparent diameter of 3.69 arc seconds, it is a telescopic object. It rises shortly after 19.00hrs in Taurus.

Neptune- will be shining at +7.8 magnitude slightly south and west (5°) of the Pleiades.



C/2023 A3 (Tsuchinshan-ATLAS)

The comet is now heading out from the inner region of the Solar System, its brightness rapidly fading. It gave quite a nice display in the early evening sky, showing a nice long tail and the hint of an anti-tail in images. I'm happy to be able show some photos of the comet from members later in this Newsletter.

For further information about the current night sky, you can go to various web pages e.g., Sky and Telescope

<https://skyandtelescope.org/observing>

or the British Astronomical Society

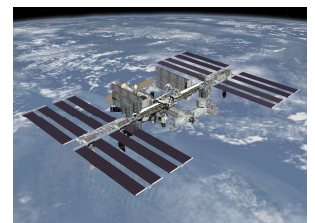
<https://britastro.org/news/sky-notes>

International Space Station Visible Passes 15 November – December 2024

Date	Brightness (mag)	Start Time	Alt.	Az.	Highest point Time	Alt.	Az.	End Time	Alt.	Az.	Pass type
15-Nov	-1.8	18:24:29	10°	SSW	18:26:07	19°	S	18:26:07	19°	S	visible
16-Nov	-1.7	17:34:30	10°	S	17:36:25	15°	SE	17:37:26	13°	ESE	visible
16-Nov	-1.1	19:09:14	10°	WSW	19:10:11	18°	SW	19:10:11	18°	SW	visible
17-Nov	-3	18:18:30	10°	SW	18:21:22	38°	SSE	18:21:22	38°	SSE	visible
18-Nov	-2.4	17:27:53	10°	SSW	17:30:42	27°	SSE	17:32:27	17°	ESE	visible
18-Nov	-1.5	19:03:42	10°	WSW	19:05:11	24°	WSW	19:05:11	24°	WSW	visible
19-Nov	-3.8	18:12:42	10°	WSW	18:15:57	63°	SSE	18:16:10	60°	SE	visible
20-Nov	-3.2	17:21:45	10°	SW	17:24:54	46°	SSE	17:27:05	18°	E	visible
20-Nov	-1.8	18:58:05	10°	W	18:59:48	28°	W	18:59:48	28°	W	visible
21-Nov	-3.9	18:06:54	10°	WSW	18:10:11	86°	SSE	18:10:38	64°	E	visible
22-Nov	-3.7	17:15:42	10°	WSW	17:18:58	71°	SSE	17:21:24	17°	E	visible
22-Nov	-2	18:52:15	10°	W	18:54:08	31°	W	18:54:08	31°	W	visible
23-Nov	-3.9	18:00:57	10°	W	18:04:14	83°	N	18:04:51	56°	ENE	visible
23-Nov	-0.2	19:37:31	10°	W	19:37:34	10°	W	19:37:34	10°	W	visible
24-Nov	-3.8	17:09:37	10°	W	17:12:53	88°	NNW	17:15:33	15°	E	visible
24-Nov	-2.3	18:46:10	10°	W	18:48:15	36°	W	18:48:15	36°	W	visible
25-Nov	-3.9	17:54:47	10°	W	17:58:04	87°	N	17:58:55	47°	E	visible
25-Nov	-0.3	19:31:23	10°	W	19:31:38	12°	W	19:31:38	12°	W	visible
26-Nov	-3.9	17:03:20	10°	W	17:06:37	83°	N	17:09:35	12°	E	visible
26-Nov	-2.5	18:39:54	10°	W	18:42:18	41°	WSW	18:42:18	41°	WSW	visible
27-Nov	-3.7	17:48:23	10°	W	17:51:39	73°	SSW	17:52:58	33°	ESE	visible
27-Nov	-0.5	19:25:12	10°	W	19:25:41	13°	W	19:25:41	13°	W	visible
28-Nov	-3.8	16:56:49	10°	W	17:00:07	88°	S	17:03:24	10°	E	visible
28-Nov	-2.4	18:33:27	10°	W	18:36:24	33°	SSW	18:36:24	33°	SSW	visible
29-Nov	-3	17:41:46	10°	W	17:44:56	48°	SSW	17:47:12	17°	SE	visible
29-Nov	-0.5	19:19:24	10°	WSW	19:19:55	11°	WSW	19:19:55	11°	WSW	visible
30-Nov	-3.4	16:50:05	10°	W	16:53:20	66°	SSW	16:56:35	10°	ESE	visible
30-Nov	-1.4	18:27:02	10°	W	18:29:27	19°	SW	18:30:51	15°	S	visible
01-Dec	-1.9	17:35:03	10°	W	17:37:55	28°	SSW	17:40:46	10°	SSE	visible
02-Dec	-2.5	16:43:10	10°	W	16:46:16	41°	SSW	16:49:22	10°	SE	visible
02-Dec	-0.4	18:21:48	10°	SW	18:22:06	10°	SW	18:22:25	10°	SW	visible
03-Dec	-0.8	17:28:27	10°	W	17:30:32	16°	SW	17:32:38	10°	S	visible

The above data is based on location data for Seend, the Heavens Above web pages. If you need accurate data for your location please go to:

<https://www.heavens-above.com/>



Members contributions

The Bubble Nebula (NGC 7635) taken by Rob Lucas

The Bubble Nebula (NGC7635). SW ED80, Svbonny 705C, 186 x 1min unguided, 10 flats, 10 darks, dual band filter, Sharpcap, Deepsky Stacker, GraXpert, Siril, Infinity Photo, Gimp. Taken 27/09/2024.



Comet C/2023 A3 Tsuchinshan-Atlas.

Taken by Steve Allen, with his Seestar.



C/2023 A3 Tsuchinshan-Atlas from Spain, taken with 4"refractor, a Bessel V-Band Filter and CMOS camera. Calibration and stacking using AiJ and SIPS. Taken by Tony Vale.

Viewing Log from Peter Chappell

Viewing Log for 22nd of October

I made a late decision to do some viewing, the sky was clear and I had a free evening, so I went off to Nebo farm and had my Meade LX90 GOTO telescope set up and ready by 19:43, tonight I would be using a Pentax XW 14 mm eye piece giving me a magnification of around 143. Temperature was 12 °C had some wind for company and there was a cloud bank on the south west horizon. Guide stars were Altair and Vega.

Tonight I brought along my Seestar S50 so I could a few pictures of comet C/2023 A3 (Tsuchinshan-Atlas), hopefully included within the newsletter? Downside to the S50 was the lack of battery power, I would be starting out with about 18 % power, so I knew it would not last long! After finding the comet, I could train some 7x50 binoculars in the general area and hopefully find the comet, it did not take long to find the object. Including the tail it must have nearly filled half of the area on view to me, a wonderful sight.

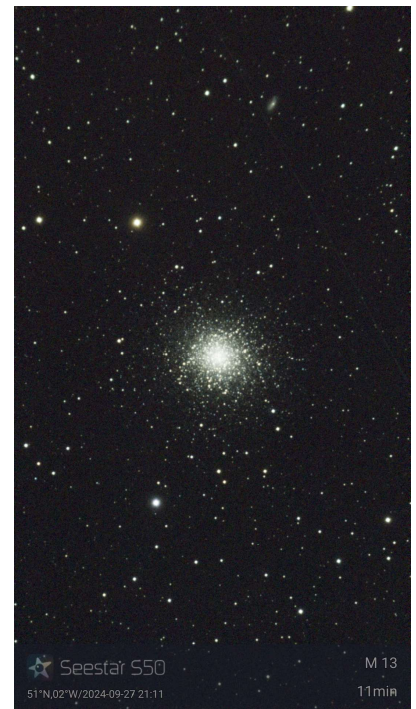
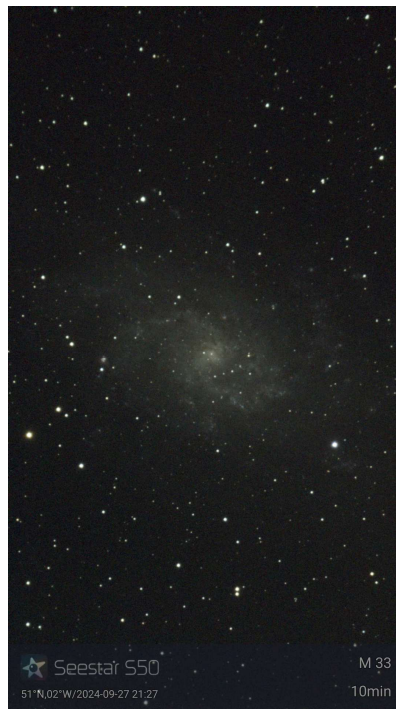
With the S50 taking pictures I could turn my attention to the night sky, I started with Saturn to the south of me. The rings are nearly closed now, I could make out Titan to the west of the ringed planet and I think I could see two other moons closer to Saturn, these might have been Rhea coming in with a magnitude (Mag) of 9.7 and Dione at 10.3? I went off to Neptune but for some reason could not locate the 8th planet from the sun, tried on a few objects with the finderscope but these turned to be dim stars. So I went off to Uranus instead, it did not help being only 8 ° above the eastern horizon, the first star I slewed too, turned out to be Uranus, there was a lot of flickering around this planet, nothing else I could report. With all the current planets on view finished I thought I would try for some summer objects before they got too close to the western horizon. Off to Ophiuchus and Messier (M) 10, being only 14 ° above the horizon, this globular cluster (GC) was a large dim blob to look at. Within the same constellation is M 12, another GC but much dimmer to view, found it hard to make out? Higher up was another GC in M 14, this was a large fuzzy blob to look at. I suspect the conditions were not good in the western skies, that cloud bank might have something to do with the viewing of these objects. Next object was M 13, the best GC in the northern sky, this was large and bright to look at, could make out a few stars on the outer edges, while viewing this object a satellite went thru my field of view, I do not think it was a Musk's object as there was no other satellites afterwards on the same track. Staying in Hercules an often overlooked GC is M 92, this is much smaller than 13 but has a bright core. Another good GC is NGC 6229, also in Hercules, this is a small dim blob, coming in at Mag 9.3. For a while my attention was turned back to the S50, now very low on power, I noticed a bright light just above the cloud tops to the south, I wondered if this was the star Fomalhaut? Turned out it was Fomalhaut, this is the lowest Mag 1 star (coming in at 1.1) visible from the shores of the UK, this is an A class white star. By now the S50 had died, so I put that away and carried on with my viewing, next object was M 57, the Ring Nebula in Lyra. This is a brilliant planetary nebula to look at, tonight it was very clear to look at.

The time was now 20:41 and I suddenly got a serious I need to go to the toilet very soon! During the day since 6 in the morning I had been to the toilet at least 7 times, I had a real diarrhea problem which would not go away for another day, so it was a case of pack up all my gear used and get home as soon as possible! What a feeling to finish a viewing session which I would not like again!

The temperature had dropped to 10 °C and the wind and stopped completely (good viewing conditions, unfortunately for me).

Clear skies.

Peter Chappell



Photos taken by Peter Chappell with his Seestar S50

I'm grateful for those that have allowed me to use their photos and submissions in this Newsletter. I am surprised that I did not get more photos especially as we have had a glorious display of the Aurora Borealis as well comet C/2023 A3 Tsuchinshan-Atlas. I will be happy to add any you have for the December Newsletter as well as anything else you are happy to show.

Ads:

For sale, 10 inch Orion Go-to Dobsonian. It comes with its object locator and a metal Orion case containing 3 Barlow lenses (7.5mm, 10mm and 20mm) and 5 filters. Offers around £300. mikewhite.bromham@btinternet.com

For sale, Celestron StarSense Explorer DX 102AZ complete, approx. 2 years old, used approx. 5 times. Price on request (cost new was £500) lavankate@gmail.com

I was wondering if you might have the facility for selling an unwanted item. It is a brand new fully assembled "Ursa Major" 6" mirror with 9mm and 25mm lenses. It was purchased for £270:00 and would sell for any sensible offer around £190:00 More details on request. Eric Collinson 0794655329

*** A short note about Ads: Going forward will not use space in the Newsletter for 'For Sale' items. However, if someone is offering to pass we have started a policy that we will forward messages to members regarding equipment being offered gratis (without charge). If you want to sell items we suggest using <https://www.astrobuysell.com/uk/>. Or similar. Thank you for your understanding.

Selected Space Flight News

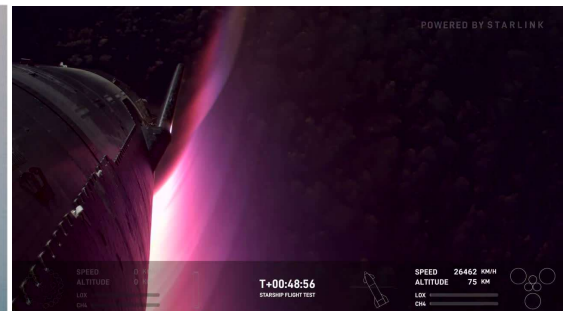
NASA and SpaceX- launched another NASA crew (Crew 9) to the ISS with unplanned empty seats to accommodate the two Boeing Starliner NASA crew that were unable to return on their spacecraft. Crew 9 and the Starliner crew will return in February of 2025. Crew 8 made their return to earth completing another successful stay at the ISS.

<https://www.nasa.gov/mission/nasas-spacex-crew-8/>

www.nasa.gov/mission/nasas-spacex-crew-9/

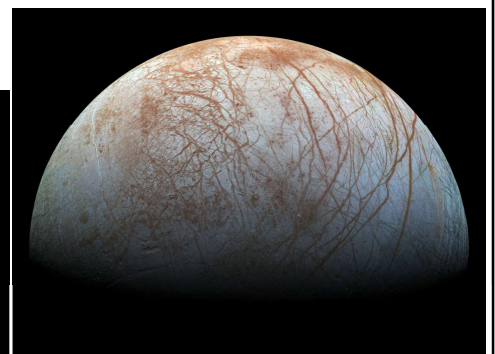
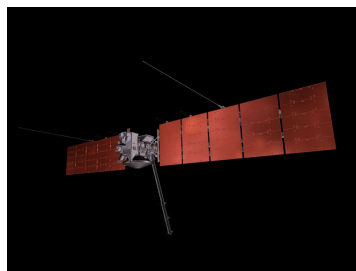
Space X- pulled of an historic launch and return to launch site at Boca Chica with their Starship booster. In what many believed would be impossible, the booster made a superb boost back and capture by the launch tower giant arms (chopsticks), another step toward a more economic spacecraft for missions to the moon. Meanwhile, the Starship itself completed its part of the test flight with re-entry and a landing in the Indian Ocean.

<https://www.spacex.com>



NASA Clipper is the first mission designed to conduct a detailed study of Jupiter's moon Europa, was safely launched by the Falcon Heavy booster on 14 October. The spacecraft will travel 1.8 billion miles (2.9 billion km) to reach Jupiter in April 2030. It will orbit Jupiter, and conduct 49 close flybys of Europa. Europa is a moon with an enormous subsurface ocean that may have conditions to support life.

<https://europa.nasa.gov/why-europa/overview/>



M42 in Orion taken from Chiang Mai, Thailand on 16 February 2024 with Canon EOS 5D. First try using Backyard EOS software, no filters, with considerable light pollution. Images processed with DSS and GIMP. (Simon Barnes)

