



OASI News

The newsletter of Orwell Astronomical Society (Ipswich)



Noctilucent clouds over Suffolk

Photo by Mike Howlett

It was good to meet so many people interested in astronomy over the last two nights – I'm glad the Society's Open days were such a success!

This is the noctilucent cloud picture I mentioned to Martin Cook. They were NNE from my terrace in Needham Market, and were shot just after midnight on 21st June this year.

Trustees: Mr Roy Adams Mr Neil Morley Mr David Payne

Honorary President: Dr Allan Chapman D.Phil MA FRAS

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Society Notices

Dear Members,

We use a Zoom Pro account for online meetings. If you would like to join in, please email Paul Whiting, treasurer@oasi.org.uk

I would like to wish everybody clear skies, stay safe and I hope to see you soon.

Andy Gibbs, Chairman

Society Contact details

Email queries: info@oasi.org.uk

Facebook: Orwell Astronomical

Twitter: @OASIPswich

YouTube:
<https://www.youtube.com/channel/UCHgxe3QAeRVWf7vkjKkCI2Q>

Members-only message board

<https://groups.io/g/OASI>

Observatory (meeting nights only)
07960 083714

**Please send material for the OASI
web site and newsletter
e.g. observations, notices of events,
general interest articles, to
news@oasi.org.uk**

The CLOSING date is the 15th day of the month

Access into the School Grounds and Observatory Tower

Please use the third gate into the school grounds by the gym.

Areas out of Bounds

Access to the Observatory is only via the black door at the foot of the Observatory tower, which leads to the staircase and thence to the spiral staircase up to the Observatory. If the black door is locked, please phone the observatory mobile during meeting hours. Kindly check/amend the number shown on your 2021 membership card.

Please do NOT explore other routes. When in doubt, ask or call the Observatory mobile.

Remember this is a school and straying into the main part of the school where the pupils reside would cause the society big problems and could see us losing the use of the observatory. Any member found to be anywhere other than the approved access route or the observatory area will face serious sanctions up to and including expulsion from OASI.

Please note that access time for all observatory member nights is after 20:15

Articles for OASI News

News, pictures and articles for this newsletter are always welcome. Details above.

Please submit your articles in any of the following formats:–

Text: txt, rtf, rtf, doc, docx, odt, Pages, pdf

Spreadsheets: xls, xlsx, OpenOffice/LibreOffice, Numbers

Images: tiff, png, jpg

Please send tables as separate files in one of the above formats.

If you don't feel up to writing a major article, perhaps you might write a short note for OASI News along the lines of "This month I have mostly been observing/constructing/mending/reading/etc."?

Newsletter archive www.oasi.org.uk/NL/NL_form.shtml

Authors, please note that your articles will be publicly available worldwide!

Reproducing articles from OASI News

If you plan to reproduce an article exactly as per OASI News then please contact the Editor – otherwise, as a matter of courtesy, please seek permission from and credit the original source/author. You may not reproduce articles for profit or other commercial purpose.

Committee 2022

Chairman	Andy Gibbs	Set overall agenda for OASI, Chair committee meetings, Press and publicity,
Secretary	Roy Gooding	Outreach meetings (jointly with Chairman), observatory decoration.
Treasurer	Paul Whiting FRAS	Finance, Supervision of applications for grants. Visits by outside groups, Observatory tours, Public appreciation of astronomy, Outreach activities.
Committee	James Appleton	Committee meeting minutes, Web site
	Martin Cook	Membership, Tomline refractor maintenance & user testing
	Matt Leeks	Safety & security
	Peter Richards	Lecture meetings, Email distribution lists
	John Wainwright	Equipment curator
	Mike Whybray	Astronomy Workshops, Child protection officer, Orwell Park School Astronomy Club.
	Andy Wilshere	Librarian
	Avtar Nagra	OASI @ Newbourne
Assistants	Martin Richmond-Hardy	Newsletter, OASI @ Newbourne

Committee Meeting

The next Committee Meeting will be on Friday 9 December at 8:00pm via Zoom. All members welcome.
AGM: 21 January 2023, face-to-face (assuming no prevalence of Covid at the time).

Welcome to new members

Steven Adcock

OASI and BAA Events

For the latest event details, please see www.oasi.org.uk/Events/Events.php

There's a Google Calendar on the OASI web site with the latest dates (and corrections!).

If you want to easily add OASI Events to your own computer/phone/tablet calendar application click this button on the website Events page (bottom right of the calendar) or use this address to access this calendar from other calendar applications.



<https://calendar.google.com/calendar/ical/Ijhs9db7Incki4sojo7092vfv%40group.calendar.google.com/public/basic.ics>

For other astronomy news and astro pictures try our

Twitter feed <https://twitter.com/OASlpswich>

Facebook page <https://www.facebook.com/pages/Orwell-Astronomical/158256464287623>

Date, Time & Location	Contact	Event
Weekly, every Wednesday, from 20:15	Martin Cook, Roy Gooding	Observatory open No meeting 7 Dec (OASI Christmas meal)
Sat 03 Dec 14:30	BAA	BAA meeting and Christmas Lecture Institute of Physics, 37 Caledonian Rd, London NI 9BU
Tue 6 December Orwell Park Observatory	Paul Whiting, FRAS treasurer@oasi.org.uk	Public access event. Observatory tour. \ Booking essential.
Wed 7 December 20:00 Westerfield Swan	Roy Gooding secretary@oasi.org.uk	The Christmas Meal
Friday 9 Dec 20:00 via Zoom	Roy Gooding secretary@oasi.org.uk	Committee meeting via Zoom. All members are invited to attend.
Monday 12 Dec 19:30 Newbourne Village Hall	Martin R-H newbourne@oasi.org.uk	OASI at Newbourne. Beginners welcome! No meeting 26 Dec
Thursday 15 Dec 20:00 Zoom	Martin Cook membership@oasi.org.uk	3rd Thursday Zoom meeting
2023		
Monday 9 Jan 19:30 Newbourne Village Hall	Martin R-H newbourne@oasi.org.uk	OASI at Newbourne. Beginners welcome!
Thursday 19 Jan 20:00 Zoom	Martin Cook membership@oasi.org.uk	3rd Thursday Zoom meeting
Saturday 21 January	Roy Gooding secretary@oasi.org.uk	OASI AGM. Location TBA
Monday 23 Jan 19:30 Newbourne Village Hall	Martin R-H newbourne@oasi.org.uk	OASI at Newbourne. Beginners welcome! Bill Barton FRAS: What's Up?

Meetings via Zoom

To join, please first contact Paul Whiting, treasurer@oasi.org.uk – OASI members only. Be sure to install/update to the latest version of Zoom – there's no need to set up an account. Go to <https://zoom.us/join> and enter the meeting ID or personal link name. You will have received a link from the meeting organiser.

As well as for some lectures & talks, we meet via Zoom on the 3rd Thursday of every month at 8pm.

OASI @ Newbourne

Martin Richmond-Hardy
newbourne@oasi.org.uk

We meet at Newbourne Village Hall, Mill Lane, IP12 4NP on the 2nd and 4th Mondays from 19:30.

Visitors are welcome but we do ask you to join the Society after two visits.

<http://www.oasi.org.uk/OASI/Membership.php>

Newbourne dates for 2022

December 12 only

Newbourne dates for 2023

January	9	23
February	13	27
March	13	27
April	10	24
May	1	22 note
June	12	26
July	10	24
August	14	28
September	11	25
October	9	23
November	13	27
December	11	

Note: Parish Council requires the hall on 8 May (our usual date)

We open up for all meetings at 7:30pm.
Astro News/Star Guide (A) at 7:45pm
followed by any Talks (T), Workshops (W) and occasional Quiz (Q).

Stargazer's Guide

On the last meeting each month, at 19:45, Bill Barton FRAS will give a short presentation of what can be viewed in the following 4 weeks plus a reminder of OASI events. These will be available on our website.

Paul Whiting FRAS will give occasional Astro News briefings.



Astronomy Workshops/Informal talks

Contact Mike Whybray Monday meetings start at 7:30pm. Workshops / Talks start at 8pm

If you are a new OASI member, or haven't been to one of these informal workshops before, they are a mixture of events of different characters including beginners talks, interactive workshops, films, etc., suitable for all.

Do you have a subject you could workshop/talk? You could do a short one, or share the effort with a partner. Drop Mike Whybray a line! workshops@oasi.org.uk

27 February at Newbourne

John Barbrook will present a 30 minute talk to members of OASI on the construction of his home built 150mm reflector, which he commenced at the age of 14!

John would also like to talk about his experiences of IDAS (Ipswich and District Astronomical Society – the precursor to OASI), which he joined at the age of 13.

Lectures – via Zoom

Contact: Peter Richards lectures@oasi.org.uk

The start time for all talks will be 8pm and, as usual, the talks will usually be held on a Friday evening.

All meetings are currently via Zoom. Contact Paul Whiting if you can't find the details.



Athaneum Astro Society

www.3a.org.uk/index.htm

Meetings (<http://www.3a.org.uk/programme.htm>) at Whepstead Community Centre, Bury Road, Whepstead, Bury St Edmunds, IP29 4TA <http://www.3a.org.uk/contact.htm> .

LYRA Lowestoft & Yarmouth Regional Astronomers

For events please see <http://www.lyra-astro.co.uk/events/>

DASH Astro

Darsham And Surrounding Hamlets <http://dash-astro.co.uk>

Meetings are normally held at New Darsham Village Hall and all DASH Astro observing sessions will take place at Westleton Common. ASOG observing sessions and locations may be arranged at the time of observation. Unless stated all group meetings will take place from 7:30 pm. on Sundays.

Meetings <https://www.dash-astro.co.uk/Events>

BAA news & webinars

For full details of all meetings or cancellations, please go to <https://britastro.org/events/future-events>

SPA Meeting – Prof Tom Kitching (UCL-MSSL), Making Dark Matter Maps with Euclid

The Society for Popular Astronomy are holding a meeting on 28th January 2023 at 2pm in London. BAA members are welcome at SPA meetings under a reciprocal arrangement. [Please refer to the SPA website for full details including directions to the venue.](#)

The BAA Radio Astronomy Section

BAA Radio Astronomy Section have been enjoying talks, seminars and tutorials via Zoom and are available on the BAA YouTube channel. <https://www.youtube.com/user/britishastronomical/playlists>

BAA RA Section Winter programme 2022/23		
Dec. 2st. 19:30 GMT (19:30 UTC)	Dr. Emma Chapman Guest star: JWST Dr. Emma Chapman Royal Society Dorothy Hodgkin fellow based at the University of Nottingham. She is among the world's leading researchers in search of the first stars to light up our Universe, 13 billion years ago. Emma released her first popular science book in 2020, 'First Light', and she has been the recipient of multiple commendations and prizes.	Christmas Lecture 'Exploring the Dark Ages of the Universe by Radio' The first stars ever! 400 million years after the big bang. This era has never been observed and constitutes over a billion-year gap in our knowledge.
Jan. 6th Friday 19:30 GMT	Whitham D. Reeve Anchorage, Alaska USA	HF Meteor Trail Reflections Observed at Anchorage, Alaska USA & UK observations using the new 6m beacon
Jan. 21st Saturday 10:00 GMT	Dr Wolfgang Harman Managing Director Astropeiler Stockert Observetery Germany	An Introduction to Radio Astronomy This will be a training presentation introducing the subject of Radio Astronomy. No previous understanding of the subject is required
Feb. 3rd Friday 19:30 GMT	Dr. Ziri Younsi UKRI Stephen Hawking Fellow Mullard Space Science Laboratory University College London	Imaging of black holes with the Event Horizon Telescope
Mar. 3rd Friday 19:30 GMT	Dr. Chuck Higgins Middle Tennessee State University Physics and Astronomy Dept.	Citizen Science and Radio Jove The Science and instrumentation for a Radio exploration of Jupiter

Radio Sky News Oct 2022 by John Cook has now been published and can be found [here](#) along with previous reports

Additionally there is a new article - *A Bolt from the Blue* - A short paper by Mark Edwards which is linked to his recent talk on the GBR Detection - It can be found [here](#)

The Night Sky in December 2022 & January 2023

Martin RH

All event times (BST) are for the location of Orwell Park Observatory 52.0096°N, 1.2305°E.

Times are GMT (UTC) which began on Sunday 31 October

Sun, Moon and planets

Sources:

<http://heavens-above.com/PlanetSummary.asp> <http://heavens-above.com/moon.aspx>

December 2022

Object	Date	Rise	Set	Mag.	Notes
Sun	1	07:41	15:47		Winter solstice Dec 21, 21:48
	31	08:03	15:53		
Moon	1	13:27	2 Dec 00:47		First Quarter 30 November 14:37 Full Moon 08 December 04:08 Apogee 12 December 00:29 Last Quarter 16 December 08:56 New Moon 23 December 10:17 Perigee 24 December 08:27
	31	12:11	01:13		
Mercury	1	09:04	16:08	-0.5	
	31	08:53	17:00	1	
Venus	1	08:39	16:11	-3.8	Aphelion 26 Dec
	31	09:17	17:05	-3.8	
Mars	1	15:55	08:49	-1.8	Mars–Moon occultation 8 Dec 05:00 – 06:00 Opposition 8 Dec Mars is closest to Earth this week, closer and brighter than we'll see it again until 2033.
	31	13:19	06:06	-1.2	
Jupiter	1	13:20	01:03	-2.4	
	31	11:25	23:15	-2.2	
Saturn	1	12:10	21:15	0.8	
	31	10:17	19:32	0.8	
Uranus	1	14:39	05:36	5.6	
	31	12:39	03:33	5.7	
Neptune	1	13:09	00:28	7.9	
	31	11:11	22:28	7.9	

January 2023

Object	Date	Rise	Set	Mag.	Notes
Sun	1	08:03	15:54		Earth at perihelion 4 January 0.9832957 AU
	31	07:37	16:41		
Moon	1	12:25	02:31		Full Moon 06 January 23:08 Apogee 08 January 09:20 Last Quarter 15 January 02:10 New Moon 21 January 20:53 Perigee 21 January 20:58 First Quarter 28 January 15:19
	31	11:33	04:08		
Mercury	1	08:46	16:55	1.3	Perihelion 2 Jan Inferior conjunction 7 Jan Maximum wester elongation 30 Jan
	31	06:25	14:20	0	
Venus	1	09:16	17:08	-3.8	
	31	08:42	18:47	-3.8	
Mars	1	13:14	06:02	-1.2	
	31	11:21	04:09	-0.3	
Jupiter	1	11:21	23:11	-2.2	Perihelion 20 Jan
	31	09:30	21:41	-2	
Saturn	1	10:14	19:28	0.8	
	31	08:22	17:50	0.8	
Uranus	1	12:36	03:29	5.7	Lunar graze of Uranus 22:35 1 Jan
	31	10:37	01:30	5.7	
Neptune	1	11:07	22:24	7.9	
	31	09:10	20:30	7.9	

Occultations during December 2022 – January 2023

https://iota-es.de/moon/grazing_descrx101.html and <http://www.lunar-occultations.com/iota/bstar/bstar.htm>

Observers are encouraged to download and install the [Occult](#) software program [Windows only] to generate predictions for their own particular site coordinates.

Meteor showers during December 2022 – January 2023

Source: BAA Handbooks 2022 & 2023 p26-27 and <https://in-the-sky.org/newsindex.php?feed=meteors>

Shower	Normal limits	Maximum	ZHR at Max	Notes
Northern Taurids	Oct 20 – Dec 10	Nov 12 – 13	5	Very slow meteors. Unfavourable.
Geminids	Dec 4 – 17	Dec 14	100+	Richest of the annual showers, with slow meteors and a good proportion of bright events. Moonlight interferes.
Ursids	Dec 17 – 26	Dec 23	10	Under-observed shower which has produced outbursts in 1945, 1982, 1986 and 2014. Very favourable.
Quarantids	Dec 28 – Jan 12	Jan 3–4	80+	High activity but with a rather narrow peak. Good in 2014. Bright events leave persistent trains. Unfavourable.

See also <https://www.rmg.co.uk/stories/topics/meteor-shower-guide>

For radio observation, use reflections from Graves radar on 143.050MHz or the Brams transmitter in Belgium on 49.97MHz and UK GB3MBA on 50.408MHz <https://www.ukmeteorbeacon.org/Home>

See also https://www.popastro.com/main_spa1/meteor/radio-meteor-observing-2020/.

Visible ISS passes $\geq 15^\circ$ max altitude for December 2022

Source: <http://heavens-above.com/PassSummary.aspx?satid=25544>

Times are BST. Predictions are approximate (26 Nov) due to craft adjustments. Check the day before.

Date	Bright-ness (mag)	Start			Highest point			End		
		Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.
01 Dec	-3.7	16:48:58	10°	W	16:52:19	82°	S	16:55:31	11°	E
01 Dec	-2.3	18:25:45	10°	W	18:28:25	34°	SW	18:28:25	34°	SW
02 Dec	-3	17:37:00	10°	W	17:40:14	48°	SSW	17:41:55	24°	SE
03 Dec	-3.3	16:48:15	10°	W	16:51:33	62°	SSW	16:54:50	10°	ESE
03 Dec	-1.5	18:25:20	10°	W	18:27:52	20°	SW	18:28:26	19°	SSW
04 Dec	-1.8	17:36:22	10°	W	17:39:16	28°	SSW	17:42:10	10°	SSE
05 Dec	-2.3	16:47:29	10°	W	16:50:37	38°	SSW	16:53:44	10°	SE
06 Dec	-0.8	17:36:06	10°	WSW	17:38:05	15°	SW	17:40:03	10°	S
07 Dec	-1	16:46:51	10°	W	16:49:28	21°	SW	16:52:04	10°	SSE
17 Dec	-0.7	07:02:02	10°	S	07:04:26	18°	SE	07:06:50	10°	E
19 Dec	-1.9	06:59:42	10°	SW	07:02:45	33°	SSE	07:05:49	10°	E
20 Dec	-1.4	06:11:04	10°	SSW	06:13:50	24°	SSE	06:16:36	10°	E
21 Dec	-1	05:23:08	12°	S	05:24:55	17°	SE	05:27:10	10°	E
21 Dec	-3.1	06:57:50	10°	WSW	07:01:07	55°	SSE	07:04:25	10°	E

Date	Bright -ness (mag)	Start			Highest point			End		
		Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.
22 Dec	-2.6	06:09:33	15°	SW	06:12:05	42°	SSE	06:15:17	10°	E
23 Dec	-2.2	05:22:50	30°	SSE	05:23:03	31°	SSE	05:26:04	10°	E
23 Dec	-3.6	06:56:09	10°	WSW	06:59:30	78°	S	07:02:52	10°	E
24 Dec	-0.6	04:35:57	14°	ESE	04:35:57	14°	ESE	04:36:44	10°	E
24 Dec	-3.5	06:08:50	29°	WSW	06:10:22	66°	SSE	06:13:42	10°	E
25 Dec	-2.7	05:21:49	45°	ESE	05:21:49	45°	ESE	05:24:31	10°	E
25 Dec	-3.8	06:54:40	11°	W	06:57:51	87°	S	07:01:13	10°	E
26 Dec	-3.8	06:07:33	40°	WSW	06:08:39	84°	S	06:12:01	10°	E
27 Dec	-2.7	05:20:21	44°	E	05:20:21	44°	E	05:22:48	10°	E
27 Dec	-3.7	06:53:13	13°	W	06:56:07	78°	S	06:59:28	10°	ESE
28 Dec	-3.8	06:05:57	45°	W	06:06:53	85°	S	06:10:15	10°	E
29 Dec	-2.5	05:18:40	41°	E	05:18:40	41°	E	05:21:00	10°	E
29 Dec	-3.4	06:51:31	14°	W	06:54:15	56°	SSW	06:57:32	10°	ESE
30 Dec	-3.7	06:04:11	46°	W	06:05:01	70°	SSW	06:08:21	10°	ESE
31 Dec	-2.4	05:16:51	39°	ESE	05:16:51	39°	ESE	05:19:05	10°	E
31 Dec	-2.6	06:49:42	14°	W	06:52:12	34°	SSW	06:55:16	10°	SE

Predictions for January 2023 are not reliable so are not listed here,

Starlink passes

<https://heavens-above.com/AllPassesFromLaunch.aspx>

For a dynamic 3-D display, see <https://heavens-above.com/StarLink.aspx>

Astronomy on the radio

Bill Barton's Radio Broadcast

ICRFM (Ipswich Community Radio) 105.7 MHz at about 08:25 in the morning of the first Wednesday of each month. I aim to cover what there is to see in the sky and then a little bit on something topical. ICRFM is also available to listen to over the Internet and there is a listen again option on their website.

<http://www.icrfm.com>

From the Interweb

Artemis I



Source: <https://blogs.nasa.gov/artemis/>

Nov. 28, 2022 On flight day 13, Orion reached its maximum distance from Earth during the Artemis I mission when it was 268,563 miles away from our home planet. Orion has now traveled farther than any other spacecraft built for humans.

Moon eclipses Earth <https://www.flickr.com/photos/nasa2explore/52529201152/>

Gresham Astronomy Lectures in 2022-3

[Cosmic Conclusions](#)

Professor Katherine Blundell

This series includes lectures on the end of our Sun, Massive Stars and the Universe.

<https://www.gresham.ac.uk/watch-now/series/cosmic-conclusions>

[The End of Massive Stars](#)

Tbc City of London, Wednesday, 18 Jan 2023 - 18:00/ Online/ Watch Later – Ticketed, free

<https://www.gresham.ac.uk/whats-on/end-stars>

[The End of Life on Earth](#)

Tbc City of London, Wednesday, 29 Mar 2023 - 18:00/ Online/ Watch Later – Ticketed, free

<https://www.gresham.ac.uk/whats-on/end-life>

[The End of the Universe](#)

Tbc City of London, Wednesday, 31 May 2023 - 18:00/ Online/ Watch Later – Ticketed, free

<https://www.gresham.ac.uk/whats-on/end-universe>

Meteor Reports for November

Station report for Kirton at end of November 2022

Martin Richmond-Hardy

Note: the following data are released by UKMON under the CC BY 4.0 license, so if you are using the data whether for scientific or other purposes, you must reference this web site

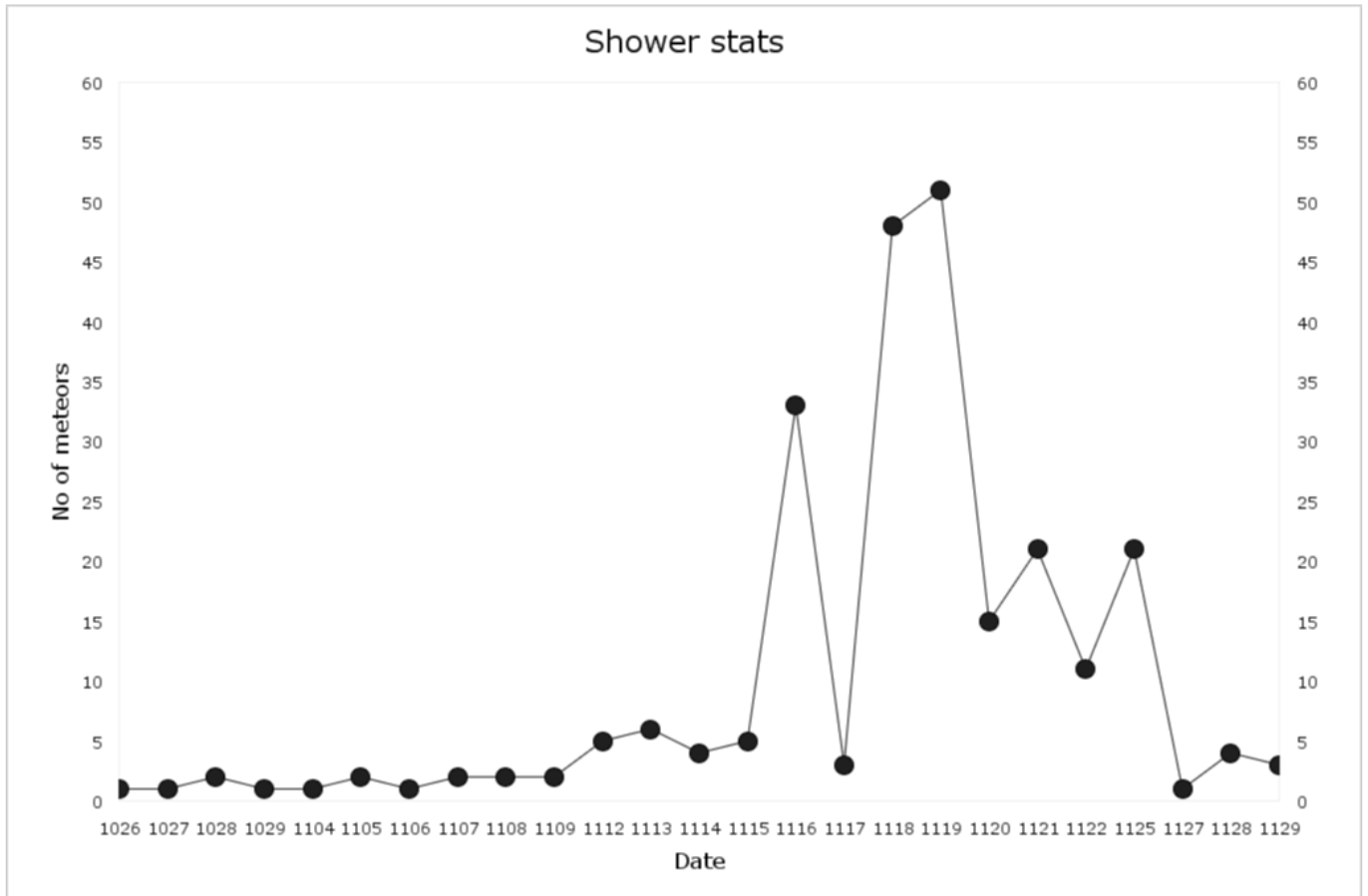
<https://archive.ukmeteornetwork.co.uk/index.html> and UKMON in your work.

Top 10 brightest for Kirton cameras UK0056 and UK007W are listed here:–

DateTime	Mag.	Shower	Name of shower	Observing Stations
20221105_051315.377_UK	-4.1	KUM	kappa-Ursae Majorids	Kirton Peldon
20221102_041037.957_UK	-4.0	STS	s-Taurids	Eastbourne Tackley Tackley YeovilMarsh Blakeney Mathon Bexley Coventry StLeonards Pickworth NLObservatory Kirton
20221103_195720.568_UK	-3.2	SLD	Southern lambda-Draconids	Gretna Tackley Billingborough Searby Randalstown Kirton Marshside Nettleham EdinburghW Midmar
20221116_012817.542_UK	-3.0	LEO	Leonids	Gretna YeovilMarsh Hawick Kirton Dyffryn Sturton Peldon Toton
20221121_012849.458_UK	-2.9	spo	sporadic	Gretna Searby Kirton EastMey Nettleham EdinburghW Pool Beverley EastCramlington EastCramlington Edinburgh Costessey
20221121_060246.666_UK	-2.6	spo	sporadic	Gretna Kirton Nettleham Sturton EastCramlington
20221104_235316.805_UK	-2.4	STS	s-Taurids	Eastbourne Searby Blakeney Bexley Basildon Eastbourne StLeonards Pickworth Sturton Kirton
20221106_190202.124_UK	-2.4	spo	sporadic	Billingborough Kirton Toton
20221105_023646.667_UK	-2.2	FTR	f-Taurids	Searby Searby Kirton Beverley
20221116_051509.365_UK	-2.2	LEO	Leonids	Kirton Nettleham Sturton Costessey

Leonids

The Leonids shower peaked on 17-18 November but were detected by UKMON cameras between 26 October and 29 November. This chart shows the distribution of meteors reported by UKMON in their daily reports (up to 100 of the brightest meteor sightings per day seen from more than one location).



Leonid meteors 2022

Standby for the Geminids this month and the Quarantids in January.

The latest meteor news can be found here <https://www.meteornews.net/category/news/>

There are now 177 cameras in the UKMON network.

All-sky cameras

Alan Smith

The allsky just north of Ipswich caught this today. There was a persistent train for at least 5 mins! Also imaged from the low countries.

The breaks are from a rotating shutter at 16bps.



This was spotted over the English Channel by UKMON cameras. Details here:—

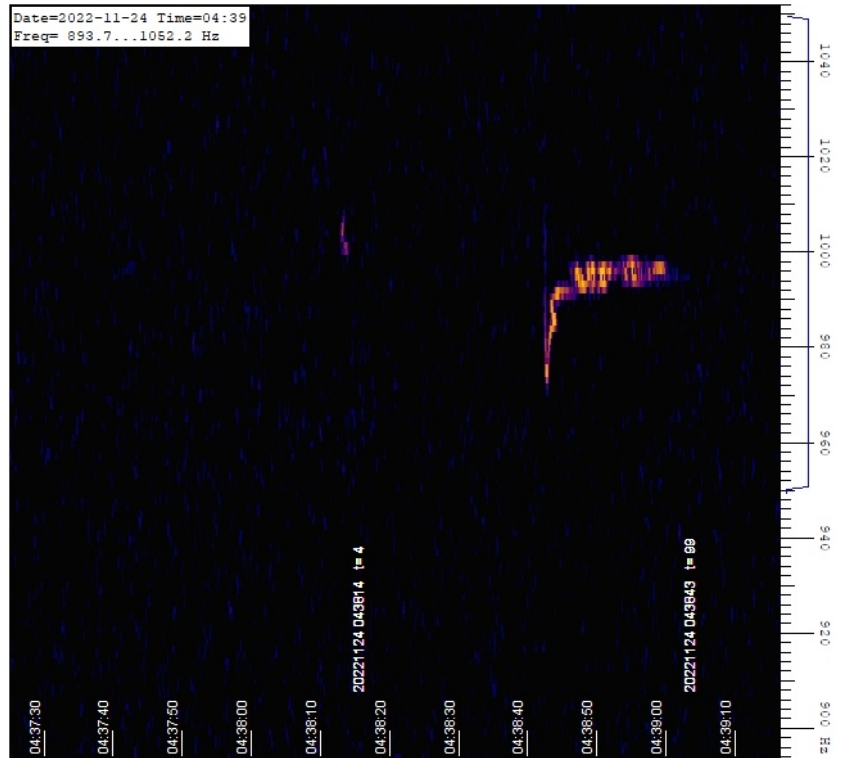
https://archive.ukmeteornetwork.co.uk/reports/2022/orbits/202211/20221124/20221124_061317.963_UK/index.html

Radio detections

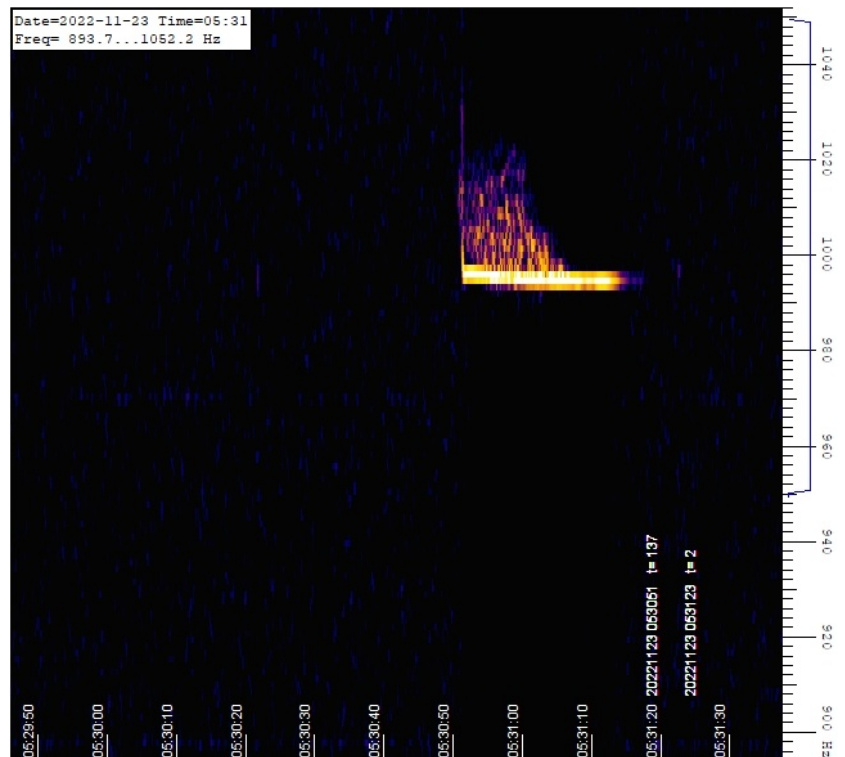
Chris Albins

The changes in frequency (vertical axis) are due to Doppler shift from the various fragments.

Radio saw a fast meteor 2022-11-24 at 043842_E2. No still image available.



This on 23 November



Library Notice

If any OASI member has any Astronomy, Maths or Science books that are gathering dust in some far corner of your house, and you feel that donating them to clear some space would be a good idea – then cogitate no longer. Contact the library via Andy Willshire and, hopefully, a method of transportation can be devised.

Partial Solar Eclipse

Roger Driver

Attached are a couple of my photos of last month's partial eclipse of the sun. The original images were projected onto paper via a tripod mounted fieldscope with an 80mm objective lens. The darker of the two photos was taken when my own shadow covered the image being projected.



A Clear Night at Orwell Park Observatory

Video capture took place of Mars and Jupiter under clear skies in the dome tonight (22 November).



Two photos of Andy at work, and people admiring the images. Photo by Mike Whybray

Mars imaged on 23-11-22, through the Tomline Refractor at Orwell Park Observatory.

We used a ZWO ASI178mc camera, capturing the image with SharpCap 4, then processed with PIPP, Autostakkert 3, Registax 6 and Affinity Photo.



Can you feel a Pulse?

The ongoing pulsar project at Newbourne creeps on apace.

The radio system seems to work: 430MHz feed (built by G8BHC) on 4m dish with G4DDK LNA (low noise amplifier), 20MHz wide filter and RSPDuo SDR (Software Defined Radio), SDRplay software running on a lenovo ThinkPad with Windows 10.

The next stage is to capture the signal and analyse it to retrieve the pulses.



**Dr Paul Whiting G4YQC, Martin R-H G8BHC and Alan Melia G3NYK
with Dr Laurence Newell behind the camera.**

28 Nov: On This Day in 1967

Astrophysicists Jocelyn Bell Burnell and Antony Hewish recognised the first evidence of a pulsar, a type of highly magnetised neutron star that emits radiation in regular pulses. The regularity of these pulses led them to nickname the signal 'LGM' (for 'little green men'), though discoveries of other similar signals from other parts of the sky soon led Bell to rule out an intelligent origin. Hewish was later awarded a Nobel Prize with Martin Ryle for this work, though Burnell was not. <https://bit.ly/3UbywXh>

Crossword for Christmas

ASTRONOMY CROSSWORD FOR CHRISTMAS.

Print it out and have a go!



Across

- 5. elementary particle combine to form hadrons
- 8. degree of brightness of a star
- 11. division of time determined by daily motion of stars
- 13. son of Poseidon
- 14. axis rotation of an equatorial mounting that is set parallel to the earths axis
- 17. positively charged particle ejected from the nuclei of a radioactive element
- 18. celestial body made of ice and dust may have two of these
- 20. nocturnal strigiform and a nebula
- 21. retrograde moon of Neptune
- 22. most stable positive hadron
- 23. aberration found in telescopes
- 24. telescopic support vane

Down

- 1. particle of electromagnetic radiation
- 2. a flower and a galaxy:how's that Vincent
- 3. Lyras brightest star
- 4. a quark with allure
- 6. a stabilised constellation
- 7. galaxy m101 is also known as?
- 9. high quality telescope lenses are made of this
- 10. saturnian moon with dense atmosphere
- 12. $-124.97\text{GeV}/c^2$
- 14. a beta gem in the winter hexagon asterism
- 15. largest impact crater seen by mariner 10 on mercury basin (7)
- 16. eighth part of a circle:constellation
- 19. apollo 10 connection to peanuts
- 21. a large invasive plant and a nebula

A few pictures from the Observatory Open Evenings

Tina Hammond



The queues on the field



The red light ghost



The queue for the Dome starts here



John Wainwright with Dobsonian

Looking at Jupiter

Picture by Mellissa O'Halloran

Mellissa was visiting the Orwell Park observatory and posted this picture on the OASI Facebook page. The Tomline seems to be sporting the eyepiece dubbed "Old knurly".

