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OASI News

The newsletter of the Orwell Astronomical Society

The spiral galaxy M51 the Whirlpool Galaxy in Canis Venaticl, just below the handle of the plough. Taken in the early hours of Friday 21st July. 6x360 second exposures at ISO 800. Canon 60Da camera on Skywatcher 190MN telescope. *Photo: David Murton*

It's OASI's 50th Anniversary on 29 July

Online ticket sales now closed! See page 25

Trustees: **Mr Roy Adams** **Mr David Brown** **Mr David Payne**

Honorary President: **Dr Allan Chapman D.Phil MA FRAS**

Astrophotographs: The Veil Nebula

by David Murton

I'm amazed at how this has turned out as I tried for two nights this week [early July] to get some time in once it got sort of dark and each time it clouded up. NGC 6995 the eastern veil nebula in Cygnus.

Its a mosaic of two frames each only comprising four shots of 360 seconds at iso 800 and taken on separate days. I tried using the shorter time and higher iso than usual due to the amount of time available. The lack of frames to stack together with the high ambient temperatures mean a lot of noise was present which had to be dealt with.

All in all I am very pleased with it! Skywatcher 190MN telescope with Canon 60Da camera. Can't wait to have another go and get a lot more frames to stack.

I do love this area of the sky. This time it is the Western side of Veil Nebula in Cygnus. The bright star in the center is 52 Cygni. This is a full frame approximately one and a half times the diameter of the moon.

Taken last night/this morning. Again shorter exposures and higher iso than normal due to the limited hours of sort of darkness. Unfortunately the warm nights mean a lot of noise to deal with.

15x360 seconds at iso 800. Canon 60Da camera on skywatcher 190MN telescope. Skywatcher HEQ6 mount. Processed with deep sky stacker and gimp.

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Society Contact details

Observatory (meeting nights only)
See page 17 07967 519249

Email queries: info@oasi.org.uk

Yahoo group:https://groups.yahoo.com/neo/groups/oasi/info

Facebook: https://www.facebook.com/groups/445056098989371/

Twitter: @OASIpswich

The OASI Facebook pages are now proving very popular. Several non-members are active contributors.

Please send material for the OASI web site and newsletter e.g. observations, notices of events, general interest articles, to

news@oasi.org.uk

Other contact details will be issued to members on a separate printed list or emailed directly to those who only receive the e-version of the News.

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, 07967 519249 during meeting hours.

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

The key to the toilets in the school gym is located in the seating area in the Belvedere room.

Articles for OASI News

News, pictures and articles for this newsletter are always welcome. Please send them to

news@oasi.org.uk

The CLOSING date is the 15th day of the month

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

Text: txt, rtf, rtfd, 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."*?

Articles win points! See page 25.

The full colour version is available from the OASI web site.

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

Authors, please note that your articles will now 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 2017

Chairman	David Murton	Set overall agenda for OASI, Chair committee meetings, Press and publicity, Public appreciation of astronomy, Outreach activities.
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 (jointly with Chairman).
Committee	James Appleton	Committee meeting minutes, Web site
	Martin Cook	Membership, Tomline refractor maintenance & user testing
	Peter Richards	Lecture meetings, Email distribution lists
	Martin Richmond-Hardy	Newsletter
	John Wainwright	Equipment curator
	Mike Whybray	Astronomy Workshops, Child protection officer, Orwell Park School Astronomy Club.
	Avtar Nagra	Newbourne Observing Group
	Matt Leeks	Safety & security
Co-opted	Andy Wilshere	Librarian

Society Notices

Welcome new members

David Hughes

Committee Meeting

The next committee meeting will be on **Tuesday 19 September 2017**, Black Horse Public House, starting 8.15pm.

Contacts

A printed list of Committee and other activity contacts is available from the Secretary or the Observatory. Email links are available in the A4 pdf version of this newsletter.

For general enquiries please email info@oasi.org.uk and your enquiry will be forwarded for action.

Signing in and out

Please ensure you sign in and out when visiting the Observatory and/or Newbourne.

This is for fire safety precautions and also provides an historic record.

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.

For other astronomy news and astro pictures try our

Twitter feed https://twitter.com/OASIpswich

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

Subscribe to the OASI Yahoo group by emailing oasi-subscribe@yahoogroups.com

Date and Time	Location	Contact	Event
Weekly, every Wednesday, 20:15–22:00	Orwell Park Observatory	Martin Cook, Roy Gooding	General observation (weather permitting) using a variety of telescopes. Entry via the third gate left. NOT the main gate
Saturday 29 July 09:00–17:30	UCS, Ipswich	David Murton chairman@oasi.org.uk	**Public access event. Major event to mark OASI's 50th anniversary. Lectures by big-name speakers, exhibitions, trade stands and much more.**
Wednesday 9 August. Set-up 10:30	Holywells Park	Roy Gooding secretary@oasi.org.uk	**Public access event.** Solar observing. Booking not necessary.
Monday 14 August From 19:00	Newbourne Village Hall	Avtar Nagra nog@oasi.org.uk	Newbourne Observing Group
Monday 21 August	USA	www.greatamericaneclipse.com	Total solar eclipse (USA)
Monday 28 August From 19:00	Newbourne Village Hall	Avtar Nagra nog@oasi.org.uk	Newbourne Observing Group + Star Guide by Bill Barton
Wednesday 06 Sept	Felixstowe Ferry Golf Club	David Murton chairman@oasi.org.uk	50th Anniversary Dinner for current and former members of OASI.
Sunday 10 Sept, Time TBC	Bentley Village playing field (bottom of Case Lane).	Roy Gooding secretary@oasi.org.uk	**Public access event.** Solar observing during village Family Fun Day. Booking not necessary.
Monday 11 Sept From 19:00	Newbourne Village Hall	Avtar Nagra nog@oasi.org.uk	Newbourne Observing Group
Tuesday 19 Sept 20:15	Black Horse Public House	Roy Gooding secretary@oasi.org.uk	Committee Meeting
23–24 Sept	Kelling Heath Holiday Park Weybourne, Holt, NR25 7HW	http://las-skycamp.org	Kelling Heath Star Party

Date and Time	Location	Contact	Event
Monday 25 Sept From 19:00	Newbourne Village Hall	Avtar Nagra nog@oasi.org.uk	Newbourne Observing Group + Star Guide by Martin RH (Bill away)
Saturday 30 Sept	Department of Physics, University of Birmingham		FAS Annual Convention and AGM
Monday 2 October	Orwell Park School observatory	Paul Whiting treasurer@oasi.org.uk	Observatory Open Evening.
13–14 October	Stoneleigh Park Stoneleigh Road, Kenilworth, CV8 2LZ, England (map)	www.ukastroshow.com	International Astronomy Show
13–20 October	Haw Wood Farm Hinton, Saxmundham Suffolk IP17 3QT	www.hawwoodfarm.co.uk/events/astronomers-week/	Astronomers Week
Friday 20 October 20:00	Museum Street Methodist Halls,	Pete Richards lectures@oasi.org.uk	Lecture: Dr Sarah Hutton has kindly offered to come to speak to us about "AGNs (Active Galactic Nuclei)".
Friday–Monday 20–23 October	Haw Wood Farm Hinton Saxmundham Suffolk IP17 3QT	www.hawwoodfarm.co.uk/events/family-star-gazing-weekend/	Family Star gazing Weekend
Wednesday 25 Oct	Location TBD	James Appleton info@oasi.org.uk	Field trip to observe the graze of V4190 Sgr. More info.
Monday 13 Nov 20:00	Orwell Park School observatory	Paul Whiting treasurer@oasi.org.uk	Observatory Open Evening.
Friday 17 Nov 20:00	Museum Street Methodist Halls,	Pete Richards lectures@oasi.org.uk	Steve Hubbard and Malcolm Brown will be "Talk with ET? We think not."
Saturday 09 Dec, 05:30	Location TBD	James Appleton info@oasi.org.uk	Field trip to observe the graze of ZC1522. More info.
Monday 11 Dec 20:00	Orwell Park School observatory	Paul Whiting treasurer@oasi.org.uk	**Public access event.** Observatory tour. Booking essential.
2018			
Tuesday 9 January 20:00	Orwell Park School observatory	Paul Whiting treasurer@oasi.org.uk	**Public access event.** Observatory tour. Booking essential.
Tuesday 13 February 20:00	Orwell Park School observatory	Paul Whiting treasurer@oasi.org.uk	**Public access event.** Observatory tour. Booking essential.

Newbourne Observing Group

Avtar Nagra nog@oasi.org.uk

We normally meet at Newbourne Village Hall, Mill Lane, IP12 4NP on the 2nd and 4th Mondays (with a few exceptions, like December and January).

The Newbourne Observing Group (The NOGs) is a good place to start for beginners. If you are thinking of buying a scope or binoculars, come and try before you buy and talk to owners about the strengths and weaknesses of particular models. If you've already splashed the cash, bring your new scope along to use or for advice on setting-up and adjustment. All welcome, with or without telescopes. We would like visitors to join OASI to enjoy the full benefits of membership.

The car park at Newbourne Village Hall has recently been much enlarged. OASI donated £100 towards this much-needed improvement.

Newbourne Observation Group Stargazer's guide

On the first meeting each month Bill Barton will give a short presentation of what can be viewed in the following 4 weeks. For armchair stargazers (on those cloudy nights) there is a small branch of the OASI Library held at Newbourne and a copy of the full catalogue.

NOG Meetings in 2017

10 July	24 July (S)	14 Aug	28 Aug (S)
11 Sept	25 Sept (S)		

We open up for all meetings at 7pm. Star Guide (S) and Workshops (W) start at 8pm.

Please check the web site diary for any changes during the year.

Astronomy Workshops

Contact Mike Whybray **Location: Newbourne Village Hall IP12 4NP**

Doors open at 7:00pm. **Workshops start at 8:00pm**

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. They are also a chance to chat with other members over a cup of tea and a biscuit, in a venue rather warmer than the observatory dome on a winter's night!

Given a clear night, we can make use of the field for a workshop or continue afterwards with some observing.

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

Autumn star parties at Haw Wood Farm (yes plural!)

David Murton

At the public weekend I shall be giving the talk and leading the public opportunities for observing. If you fancy a nights observing (or more) I would welcome any offers of help. Those who did this in the last couple of years will confirm it is really worthwhile and good fun will be had by all!

Also note the serious observing weekend the previous one. I shall be attending both.

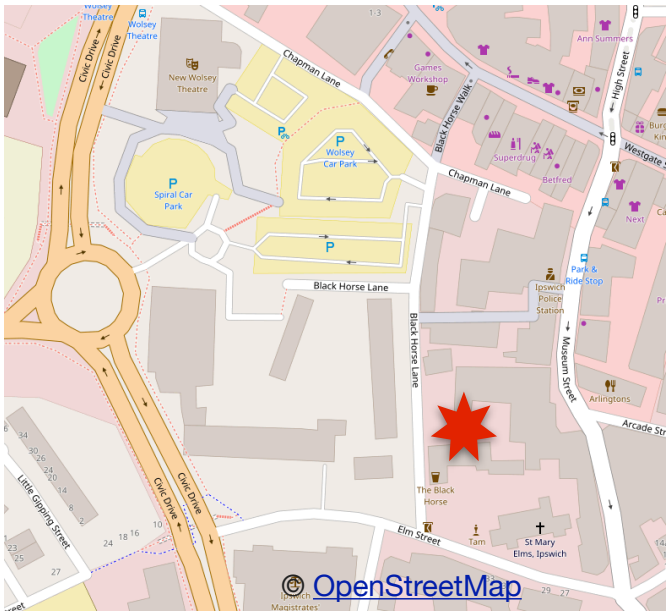
http://www.hawwoodfarm.co.uk/events/astronomers-week/

http://www.hawwoodfarm.co.uk/events/family-star-gazing-weekend/

Lecture Meetings

Contact: Peter Richards **lectures@oasi.org.uk**

These take place in Museum Street Methodist Halls, Upstairs room, Black Horse Lane, Ipswich



20 October

Dr Sarah Hutton has kindly offered to come to speak to us about *AGNs (Active Galactic Nuclei)*.

Sarah also studies Galaxy Evolution.

She is a fully qualified teacher and lectures to primary and secondary schools and is very active in promoting the public understanding of science.

17 November

Steve Hubbard and Malcolm Brown *"Talk with ET? We think not."*

Parking

Please arrive early to ensure entry to the lecture venue. At the request of the venue's management we will lock the main entrance door before the start of the talk. The lock is a front door latch-type so it will be easy to leave the building (in an emergency for example) but you will not be able to get in.

There is fairly ample car parking at the venue case and you can park in any of the marked bays except for the row - with numbers painted on the ground - outside the house on the North (end of the car park (the left hand side as you look form the road). Just in case you can't find a suitable parking space you can find an alternative car parks at the end of Black Horse Lane and in Elm Street. These alternative car parks charge: at the time of writing the Elm Street car park is cheaper. In both cases remember to select the night rate option at the ticket machine.

DASH Astro Events – 2017

See http://dash.moonfruit.co.uk for the latest details.

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 at WESTLETON VILLAGE HALL from 7:30 pm

Date	Event
19 Aug	Dash Solar Observing Session National Trust, Dunwich Heath IP17 3DJ 10:00 - 15:00
02 Sept	David Murton - Beginners Observing - with Q&A "Ask the Panel"

The Night Sky in August

Martin RH

All event times given are for the location of Orwell Park Observatory 52.0096°N, 1.2305°E

Times are in BST (GMT+1) unless otherwise stated.

Moon

Source: http://heavens-above.com/moon.aspx

New Moon	1st Quarter	Full Moon	Last Quarter
	30 July 16:23	07 August 19:11	15 August 02:15
21 August 19:30	29 August 09:13		

Sun, Moon and planets

Source: http://heavens-above.com/PlanetSummary.aspx

Object	Date	Rise	Set	Mag.	Notes
Sun	1	05:17	20:45		
	31	06:05	19:44		
Moon	1	15:37	00:34		Apogee 405,025 km 02 August 18:56 Perigee 366,121 km 18 August 14:19 Apogee 404,308 km 30 August 12:25
	31	16:17	00:15		
Mercury	1	08:03	21:21	0.6	Maximum eastern elongation Jul-30 Aphelion Aug-02
	31	05:37	19:03	3.6	
Venus	1	02:13	18:21	-3.9	
	31	03:05	18:33	-3.8	
Mars	1	05:07	20:42	1.7	Superior conjunction Jul-27
	31	05:00	19:25	1.8	
Jupiter	1	11:46	22:48	-1.7	
	31	10:16	20:58	-1.6	
Saturn	1	17:40	01:35	0.3	
	31	15:41	23:31	0.4	
Uranus	1	23:04	12:54	5.8	
	31	21:06	10:54	5.7	
Neptune	1	21:51	08:37	7.8	Neptune will be at opposition on Sep-05
	31	19:52	06:35	7.8	

Asteroids

Source: http://heavens-above.com/Asteroids.aspx

Occultations during August 2017

James Appleton

The table lists occultations during August under favourable circumstances. The event should be readily visible in small telescopes or binoculars. The first two columns list the date and time (UT) of the occultation. Column three gives the phenomenon: 'D' denotes a disappearance and 'R' a reappearance. The table lists circumstances of disappearances and reappearances as dictated by the visibility of each phenomenon (determined by altitude, lunar phase, etc). Column four details the lunar phase ('+' for waxing and '-' for waning). Columns five and six give the altitude of the Sun and the star, both in degrees. (A negative solar altitude means that the Sun is below the horizon.) Columns seven and eight provide the star's magnitude and catalogue number.

The data relates to Orwell Park Observatory, but will be similar at nearby locations.

Please note that times are shown in UTC. Add an hour for BST.

Only two lunar occultations occur during the month under favourable circumstances, detailed below. The data relates to Orwell Park Observatory, but will be similar at nearby locations.

Date	Time (UT)	D/R	Lunar Phase	Sun Alt(º)	Star Alt(º)	Mag	Star
31 Jul 2017	21:08:00	D	0.62+	-10	16	7.5	ZC 2200
02 Aug 2017	21:01:43	D	0.79+	-10	18	6.3	29 Oph
03 Aug 2017	21:55:55	D	0.86+	-16	17	7.2	Hip 87606
06 Aug 2017	21:18:25	D	0.99+	-13	15	5.1	10 Cap, π Cap
13 Aug 2017	23:56:07	R	0.62-	-24	16	4.3	73 Cet, ξ2 Cet
15 Aug 2017	02:47:47	D	0.49-	-15	36	4.1	5 Tau, f Tau
16 Aug 2017	01:39:55	D	0.38-	-21	21	4.5	71 Tau, V777 Tau
	02:36:50	R		-16	30		
16 Aug 2017	02:44:53	D	0.38-	-15	31	3.4	78 Tau, θ2 Tau
16 Aug 2017	02:48:00	D	0.38-	-15	31	3.8	77 Tau, θ1 Tau
17 Aug 2017	02:20:11	D	0.27-	-18	20	5.4	115 Tau
	03:07:08	R		-13	27		

Meteor Showers

Source: BAA Handbook 2017 p97-99

Shower	Limits	Maximum	ZHR at Max	Notes
α-Cygnids	July – August	Jul 21 Aug 21	5	Weak, apparently stationary radiant producing steady activity throughout northern summer.
α-Capricornids	Jul 15 – Aug 20	Aug 2–3	5	Long, slow fireballs are often seen
δ-Aquarids	Jul 15 – Aug 20	Jul 29 Aug 6	20 10	Fine southern shower with double radiant. S component is the richer. Meteors tend to be faint
Perseids	July 23 – Aug 20	Aug 12 19h	80+	Rich shower of fast meteors. High proportion of bright events leaving persistent trails. Moonlight interferes

Visible ISS passes ≥15º max altitude

Martin RH

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

Times are BST. Predictions are approximate (data taken on 16 May) due to craft adjustments. Check the day before.

Date	Mag	Start			Highest point			End		
		Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.
01 Aug	-3.9	22:32:48	10°	W	22:36:03	70°	SSW	22:37:55	23°	ESE
02 Aug	-1.6	00:09:28	10°	W	00:10:32	16°	WSW	00:10:32	16°	WSW
02 Aug	-3.9	21:40:21	10°	W	21:43:37	82°	S	21:46:53	10°	E
02 Aug	-3.0	23:16:52	10°	W	23:19:46	35°	SSW	23:19:46	35°	SSW
03 Aug	-3.5	22:24:21	10°	W	22:27:31	49°	SSW	22:29:01	26°	SE
04 Aug	-3.8	21:31:52	10°	W	21:35:05	65°	SSW	21:38:17	10°	ESE
04 Aug	-2.2	23:08:37	10°	W	23:10:54	21°	SW	23:10:54	21°	SW
05 Aug	-2.8	22:15:55	10°	W	22:18:52	31°	SSW	22:20:12	22°	SSE
06 Aug	-3.2	21:23:20	10°	W	21:26:29	44°	SSW	21:29:31	11°	SE
07 Aug	-1.9	22:07:40	10°	W	22:10:04	19°	SW	22:11:29	15°	S
08 Aug	-2.4	21:14:52	10°	W	21:17:43	28°	SSW	21:20:34	10°	SSE
10 Aug	-1.5	21:06:39	10°	W	21:08:49	17°	SW	21:10:58	10°	S

Iridium flares

Too many to list but see http://heavens-above.com/IridiumFlares.aspx

Iridium Satellites Keep the Fireworks Coming … but Not Forever – Astro Bob

Paul's Astronomy Podcast for August

Paul Whiting FRAS Podcast, August 2017 www.oasi.org.uk/Podcasts/201708_pod.mp3

David's Radio Broadcast

On the 1st Tuesday of the month, 1.40pm on the Lesley Dolphin show on BBC Radio Suffolk.

Bill's Radio Broadcast

ICRFM (Ipswich Community Radio) 105.7 MHz at about 08:25 in the morning of the first Wednesday of each month. 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. www.icrfm.com

Snippets from the Royal Astronomical Society

Milky Way could have 100 billion brown dwarfs

Our galaxy could have 100 billion brown dwarfs or more, according to work by an international team of astronomers, led by Koraljka Muzic from the University of Lisbon and Aleks Scholz from the University of St Andrews. On Thursday 6 July Scholz will present their survey of dense star clusters, where brown dwarfs are abundant,... More

Re-Making Planets after Star-Death

Astronomers Dr Jane Greaves, of the University of Cardiff, and Dr Wayne Holland, of the UK Astronomy Technology Centre in Edinburgh, may have found an answer to the 25-year-old mystery of how planets form in the aftermath of a supernova explosion. The two researchers will present their work on Thursday 6 July at the National... More

Adventures in acoustic cosmology

A project that explores whether there is a musical equivalent to the curvature of spacetime will be presented on Thursday 6 July by Gavin Starks at the National Astronomy Meeting at the University of Hull. Optical Hubble Space Telescope image of the Antennae Galaxies overlaid with a radio-image taken by ALMA. In the... More

First look at gravitational dance that drives stellar formation

Swirling motions in clouds of cold, dense gas have given, for the first time, an active insight into how gravity creates the compact cores from which stars form in the interstellar medium. The results will be presented today, Thursday 6 July, by Gwen Williams at the National Astronomy Meeting at the University of... More

Fastest stars in the Milky Way are ‘runaways’ from another galaxy

A group of astronomers have shown that the fastest-moving stars in our galaxy – which are travelling so fast that they can escape the Milky Way – are in fact runaways from a much smaller galaxy in orbit around our own. The researchers, from the University of Cambridge, used data from the Sloan Digital Sky Survey... More

"Little Cub" gives astronomers rare chance to see galaxy demise

A primitive galaxy that could provide clues about the early Universe has been spotted by astronomers as it begins to be consumed by a gigantic neighbouring galaxy. The Little Cub galaxy – so called because it sits in the Ursa Major or Great Bear constellation – is being stripped of the gas needed to continue forming... More

Shocking case of indigestion in supermassive black hole

A multi-wavelength study of a pair of colliding galaxies has revealed the cause of a supermassive black hole's case of 'indigestion'. Results will be presented by Dr Hayden Rampadarath at the National Astronomy Meeting at the University of Hull. Once every couple of hundred million years, the small galaxy NGC 5195... More

Surprise methanol detection points to an evolving story of Enceladus’s plumes

A serendipitous detection of the organic molecule methanol around an intriguing moon of Saturn suggests that material spewed from Enceladus undertakes a complex chemical journey once vented into space. This is the first time that a molecule from Enceladus has been detected with a ground-based telescope. Dr Emily Drabek-Maunder,... More

Musical Sun reduces range of magnetic activity

A study of the Sun using sound waves suggests that the layer in which the significant magnetic activity is located has grown thinner in recent years. Prof Yvonne Elsworth will present results at the National Astronomy Meeting at the University of Hull on Tuesday 4 July. Image of the sun in 171 angstrom as seen by NASA's SDO on... More

Shining a light on solar energetic particles and jets

A team of astronomers, led by PhD researcher Malcolm Druett of Northumbria University at Newcastle, have taken a big step forward in understanding a 30-year-old mystery in the process of formation of solar flares. Druett will present their work on Monday 3 July at the National Astronomy Meeting in Hull, and the research appears... More

Snippets from the Interweb

Society for the History of Astronomy

Today 17 July, as I start to compose this edition of OASI News, is the anniversary of the birth, at Charleroi on 17 Jul 1894, of the Belgian priest, mathematician and cosmologist **Georges Henri Joseph Édouard Lemaître**. He is best remembered both for proposing what is now known as the Big Bang theory of the origin of the universe and for putting forward the theory of the expansion of the universe which is widely, albeit erroneously, attributed to the American astronomer Edwin Hubble. In an article published in 1927 Lemaître derived what became known as Hubble's law, in addition to making the first estimation the numerical value of the Hubble constant. However, Lemaître was unable to prove that there was an actual linear relation, the first reliable and persuasive observational evidence of which was provided by Hubble two years later.

17 July is also the anniversary of the death, at Crowborough, Sussex on 17 Jul 1904, of the Welsh astronomer **Isaac Roberts**. He was a pioneer in the developing science of **astrophotography**, using a 20-inch reflector housed in his private observatory to capture images of number of celestial objects including the Orion Nebula (M42) and the Pleiades open star cluster (M45) in 1886, the latter showing photographically for the first time the nebulosity surrounding the stars forming this famous cluster. A couple of years later he photographed the Andromeda Galaxy (M31), the image he obtained clearly displaying its spiral structure.

SPA's Facebook page is a mine of fascinating information.

OASI Member of the Year Competition

- Open to any non committee member (at time points earned)
- Runs from 1st September to 31st August each year
- It is the members responsibility to check that they have been credited the points for a particular event

Activity	Points	Activity	Points
Helping at an OASI outreach event	10	Writing a newsletter article (per page)	3
Giving a workshop/monthly sky notes	20/10	Introducing a new member	5
Astro photo published	2		

Top 5 Members' points to date

Bill Barton	205
Andy Gibbs	78
Alan Smith	68
Joe Startin	55
Mike O'Mahoney	50
Nicky Richards	50

Come and help at one of our outreach events and earn 10 points. You don't need to be an expert!

Write a short article for the magazine, e.g.

> Bought some new astronomy kit? Tell us about it – successes and pitfalls.

Martin RH

The Yearbook of Astronomy

Brian Jones
Editor - Yearbook of Astronomy

We are seeking the interest and support of backyard astronomers everywhere to help us. in our efforts to preserve the *Yearbook of Astronomy* (formerly edited by Patrick Moore) and to consider adding the *Yearbook of Astronomy 2017* to their libraries.

The *Yearbook of Astronomy* (first published in 1962) has been saved. The publishers Macmillan had decided to make the 2016 edition the last, and that they would not be publishing any further Yearbooks.

However, new editors have been found, as well as a publisher who will take the series on from the 2018 edition (due out in November of this year) and, in order to prevent a 'gap' in the series, we have self-published an edition for 2017 which is now available.

Herewith a link to the posting on my blog through which you can order your copy of the *Yearbook of Astronomy 2017*: www.starlight-nights.co.uk/subscriber-2017-yearbook-astronomy/

Would you be kind enough to purchase a copy, and then show it to your colleagues and friends and let them know it is available? If so, that would be greatly appreciated.

The link to the review of the 2017 edition is: http://www.starlight-nights.co.uk/reviews/

Also, here is a link to our Yearbook of Astronomy Facebook Group:

https://www.facebook.com/groups/YearbookofAstronomy/

Please feel free to join the group and, through doing so, keep fully up to date with the *Yearbook of Astronomy* as we take it forward.

This recent interview on BBC Radio Leeds tells the story behind the rescue and preservation of the long-running and iconic Yearbook of Astronomy and plans for the future of the series.

https://www.facebook.com/Society-for-the-History-of-Astronomy-177159759001688/

BAA News

BAA Autumn Weekend

Coming up quickly is the 08-10/09/2017 - BAA Autumn Weekend Meeting in Chester - Bookings are open for this event. *Stars: Life and death of the Universe*. Plus a chance to visit the OpTIC Technology Centre, part of the UK Space Agency. A must see. Organised by Hazel Collett, Meetings Secretary.

Observer's Challenge : The Travelling Astronomer

We cannot ignore the President's challenge. I guess he has to pull rank. Quite a different challenge and one to which those less enthused astro imagers can rise.

"Many people will be visiting foreign climes where unfamiliar parts of the night sky will be more readily visible and often under darker skies than they experience at home. We'd love to hear about any observations you make. This could be a description of your naked eye impressions of the Milky Way towards the galactic centre, a sketch of a star cluster seen through binoculars or an image of an object taken with a DSLR camera or perhaps a small telescope – in fact anything that catches your interest."

Jeremy Shears, President.

Don't forget to pack your binoculars. Stewart Moore has excellent advice for buying the best. Click here.

BAA Diary Dates

08 - 10 September 2017 - BAA Autumn Weekend Meeting in Chester

30 September 2017 - Observers' Workshop - Lunar and Solar in Burlington House, Piccadilly. Take a look at Director Lyn Smith's article on solar observing on the BAA website

7 October 2017 Back to Basics Workshop in Kings' Lynn Norfolk. Highly recommended for all new astronomers.

FAS News - Federation of Astronomical Societies

30th September 2017 is the date of the next FAS Annual Convention, which will be held again this year at the Department of Physics, University of Birmingham. There is an exciting programme of speakers in preparation, so be sure to make yourself free that weekend.

At the convention we will be holding the AGM, where there will be a number of posts with no current candidate. If you would like to help the FAS and volunteer for a role, please let us know. Please get in touch with me if you would like an informal chat in advance.

Callum Potter, President, Federation of Astronomical Societies president@fedastro.org.uk

Next month

Special Report on our 50th Anniversary event.

This will be a special, limited-run, printed edition.

September OASI News

Stellar Occultation by Triton 5 October 2017 – an observing challenge for those with telescopes of ≥14in (350mm) aperture.

OASI 50th Anniversary Convention, 29 July 2017

On Saturday 29 July 2017, we will celebrate the 50th anniversary of OASI with an astronomy convention. The venue is the Waterfront Building, University of Suffolk. There will be lectures by prominent astronomers, displays by astronomy societies and trade stands.

Venue: The Waterfront Building is an ideal venue in a central location on the popular waterfront area of Ipswich. It boasts large lecture theatres together with abundant exhibition space on two levels. There is a café on site and a plentiful selection of eateries and bars nearby. Green marker.

Car Parking: Car parking is available at £4.50 for the day at postcode IP3 0AQ, less than five minutes walk from the venue. Map on web site. Many other car parks are available in town: see Parkopedia.

Accommodation: Many hotel chains are nearby, with a range of prices to suit all pockets.

Tickets: Entrance to the convention (displays and trade stands) will be free. Tickets for the lectures will be on sale at the door. The door price will be the same for both members and non-members.

Full details of the event and booking prices can be found on the front page of our web site at www.oasi.org.uk.

Speakers

Dr Allan Chapman, FRAS, of Wadham College, Oxford, is an accomplished speaker, TV presenter and author. He is a founding member and president of the Society for the History of Astronomy and Honorary President of OASI.

Nick James has been a member of the BAA from the age of 12. He was papers secretary for many years and is currently Director of the Comet Section.

Nik Szymanek has been the premier UK astro-imager for over two decades. He often collaborates with professional astronomers and his work frequently appears in the pages of astronomy magazines.

Dr John Mason is former President of the BAA and currently Director of the Meteor Section and Public Relations Officer. He has led trips all over the world to observe solar eclipses and aurorae.

Dr Nick Hewitt is a trustee of the BAA, former Director of the Deep Sky Section and President. He is a keen eclipse chaser and observer of the deep sky, Mars and active galactic nuclei.

Programme

09:00 – 18:00	Displays area (foyer)
09:30 – 10:45	Nick James
10:45 – 12:00	Nik Szymanek
13:00 – 14:15	Dr John Mason MBE
14:30 – 15:45	Dr Allan Chapman: 'Sir John Herschel, Astronomer in two hemispheres'
16:00 – 17:30	Dr Nick Hewitt

Trade Stands

The Widescreen Centre
Sneezums, Bury St Edmunds
Space Rocks UK
Dewcontrol

Display Stands

Athenaeum Astronomy Society
Breckland Astronomical Society
DASH Astro
LYRA Lowestoft and Yarmouth Regional Astronomers
British Astronomical Association
Commission for Dark Skies
Kesgrave High School Space Club
Geo Suffolk
East Anglian Rocketry Society

OASI 50th Anniversary Dinner

Orwell Astronomical Society

50th Anniversary Dinner

FELIXSTOWE FERRY GOLF CLUB

Wednesday 6th September 2017 - 7 for 7.30pm

NAME: _____ **AMOUNT ATTACHED:** _____

PLEASE TICK PREFERENCE

STARTERS

MELON AND ELDERFLOWER COCKTAIL	☐
CHICKEN & MANGO KORMA SALAD, SERVED ON A BED OF MIXED LEAVES	☐
BUTTERNUT SQUASH HOMEMADE SOUP	☐

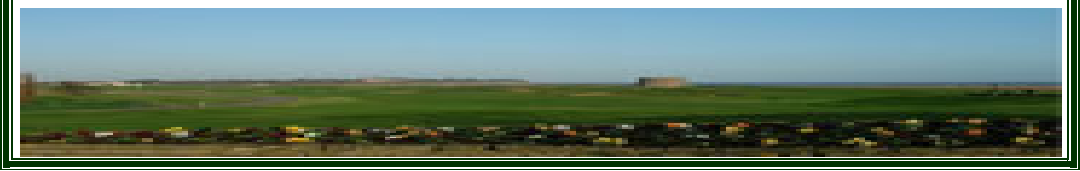
MAIN

SLOW BRAISED FEATHER BLADE STEAK IN A RICH RED WINE, SHALLOT AND MUSHROOM GRAVY	☐
HERB CRUSTED SEA BREAM	☐
MUSHROOM WELLINGTON STUFFED WITH TOMATOES, SPINACH AND BLUE CHEESE	☐

DESSERTS

MIXED BERRY CRUMBLE SERVED WITH HOT CUSTARD/POURING CREAM	☐
LEMON POSSET SERVED WITH MINI MERINGUES	☐
SELECTION OF CHEESE & BISCUITS	☐
TEA/COFFEE	☐

2 COURSES £16.00 / 3 COURSES £20.00

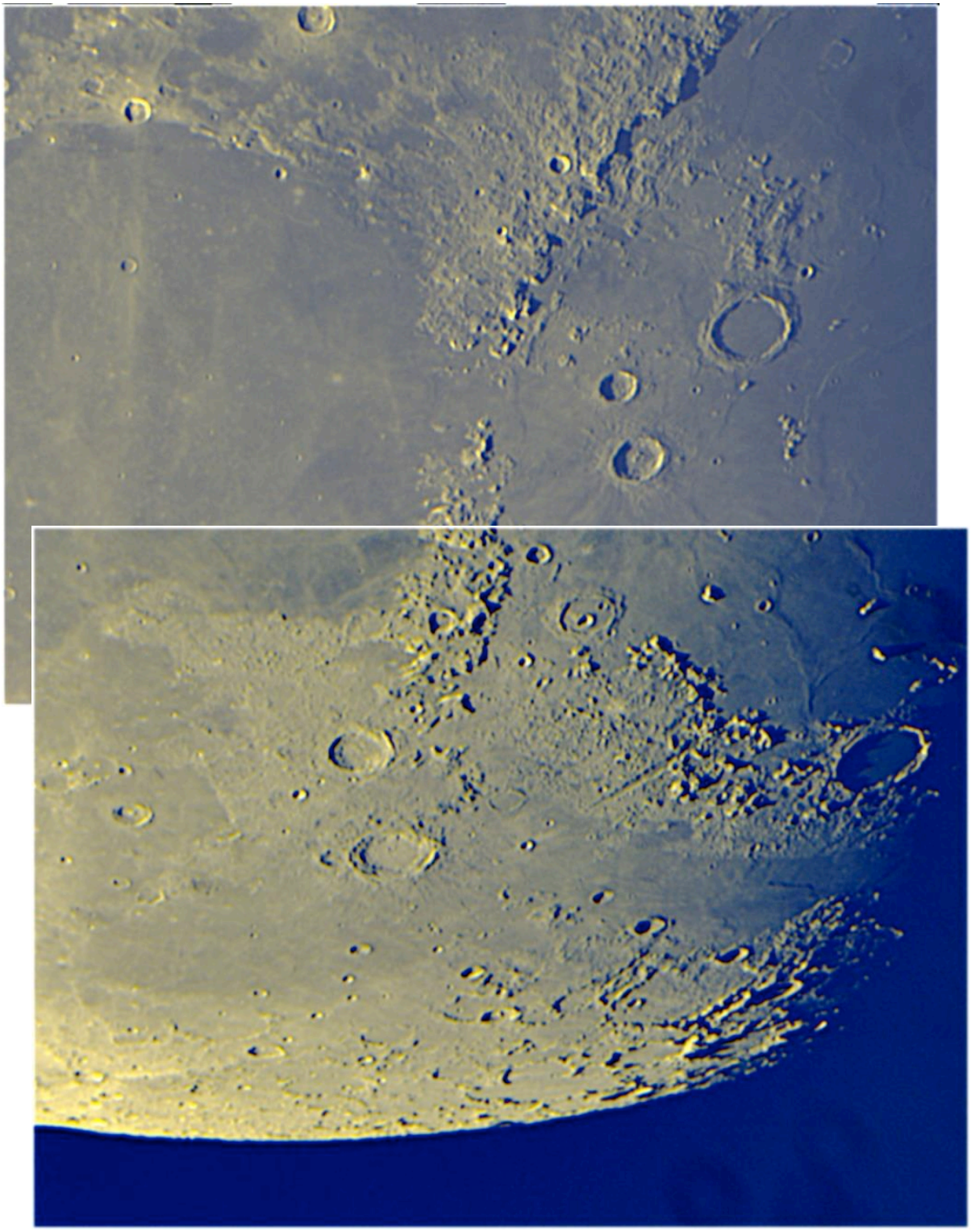


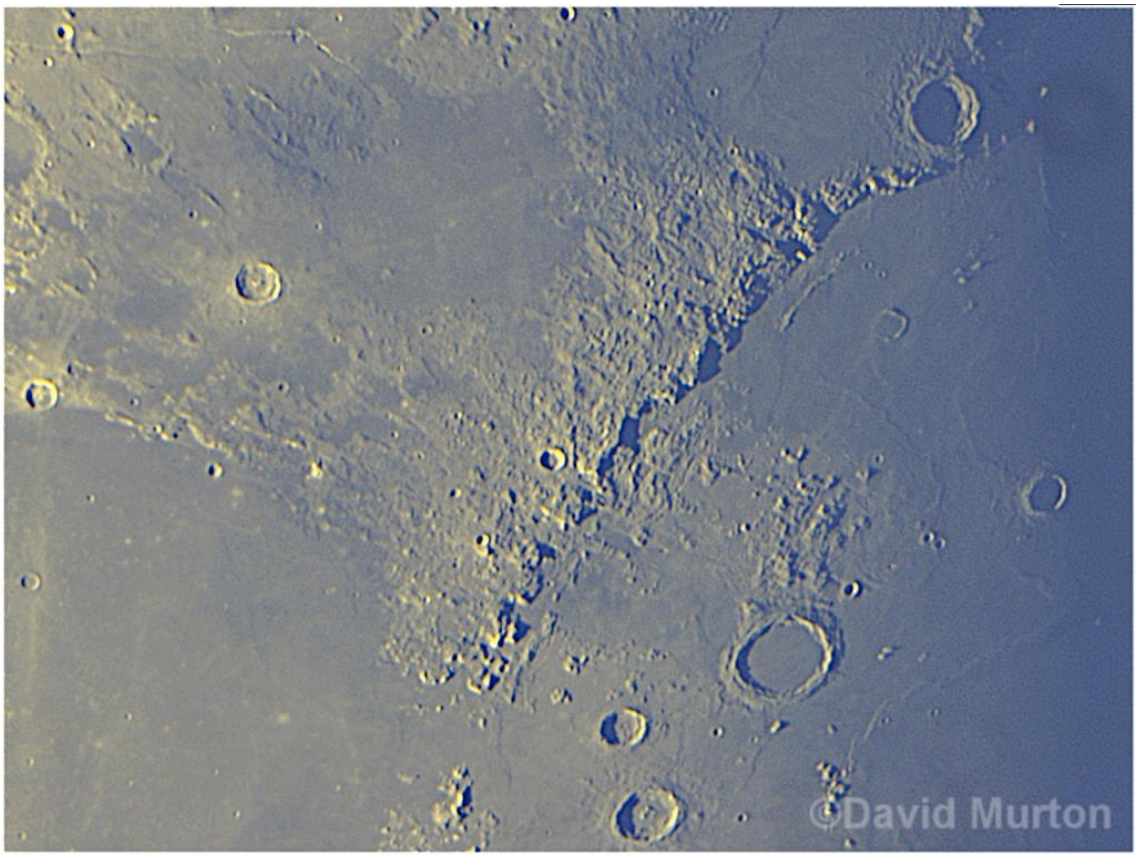
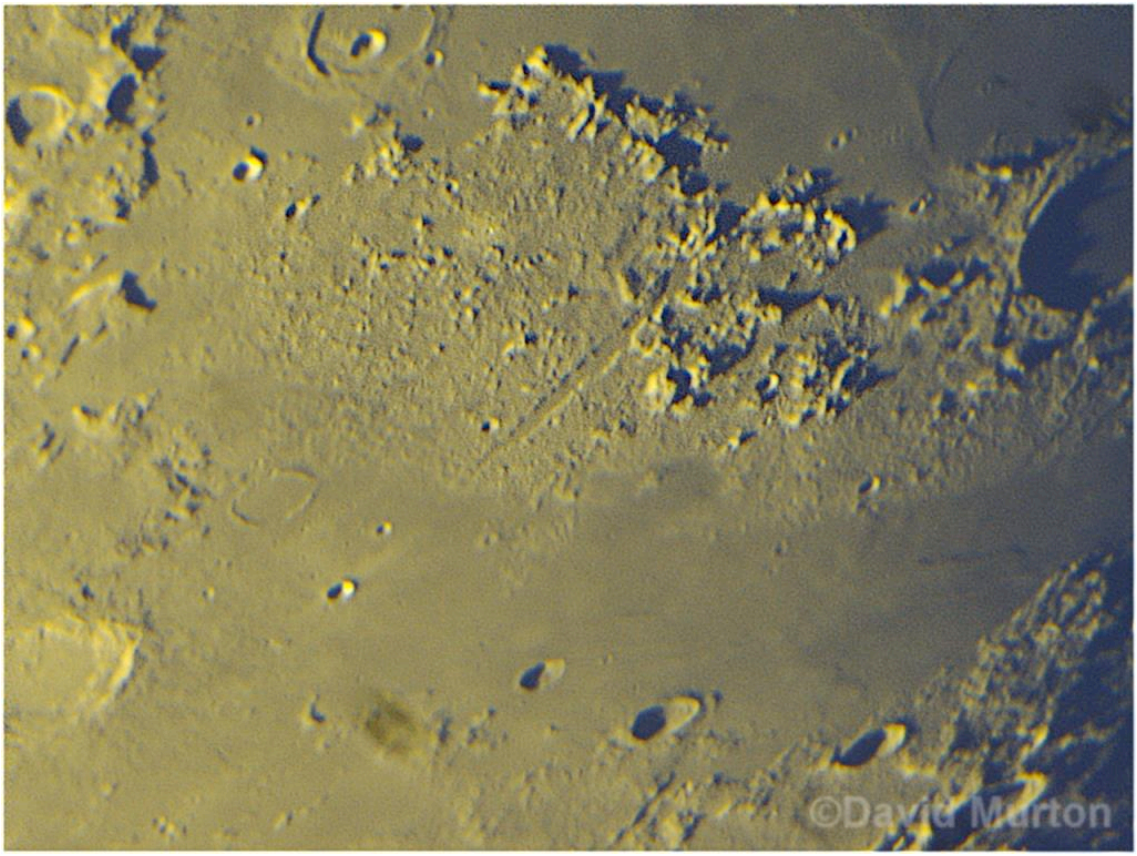
This is open to all current and past oasi members so book your places early! Please let Paul Whiting have your booking, menu choices and payment either at one of our meetings or via email at treasurer@oasi.org.uk.

Astrophotographs: The Moon

by David Murton

Some of the Lunar Alps area on Sunday evening, 2 July. Meade SC8 and Altair GPCAMV2 IMX224 camera . Each best 25% of 600 frames. Registax 6 & gimp.



Vallis Alpes region

Detail