

Number 132 – April 2018



Picture of the Month - March 2018

The Moon – By Ron Peet

<http://www.sherwood-observatory.org.uk/>

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Promoting and advancing public education in the science of astronomy

MSAS was founded in 1970 to foster interest in astronomy in Ashfield and surrounding district

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Welcome and Introduction

We wish to welcome all members to a new membership year.

Last month saw the conclusion of our winter viewing and events activities, and we have reports later from the final Open Evening, Basic Night Sky Beginners Course, and Astrophotography Training Course.

Now we've switched to British Summer Time again, the Society activities switch over to Solar Viewing events and annual summer maintenance, plus hopefully extending our car parking facilities around the reservoir. There will hopefully be more news about these in future newsletters.

Fact of the Month - Michael Lowe

“Relative to the Milky Way, Earth is travelling through space at more than 500,000mph.”
With many thanks to Phil Randall for providing this fact.

Newsletter contacts: Chris Hook & Matt Greenwood- newsletter@sherwood-observatory.org.uk

Society News and Information

Drinks Mugs

Following a lot of recent media reports about the environmental impact of single use plastics, the Committee have decided to try to limit our own use. The main impact is on the use of polystyrene cups which are neither recyclable nor biodegradable. The Society still has some polystyrene cups remaining but the Committee would like to reserve their use to Public Events while trying to find an alternative.

The Society has plenty of ceramic mugs and request that members use and wash these when finished with, rather than using the polystyrene cups.

Radio Astronomy and Meteor Watch - Nigel Cunnington

Radio Astronomy

Hi All,

This past month has seen a number of developments in Radio Astronomy here at Sherwood Observatory. On the 10th April we saw the inaugural meeting for the Radio Astronomy Group in the lecture room at the Obs which started at 6PM. Seven people were in attendance.

The agenda for that meeting was based on a discussion around the 2017 RA report that I wrote for the committee on the development of the section.

We first ratified the objectives of the group defining the first 3 which the committee laid out in 2015, and the forth which was suggested by Martin Braddock in January 2017. These were:-

- 1. To open up at Sherwood Observatory Radio Astronomy, and to integrate interested members in its use.*
- 2. To promote and educate the general public in the meaning of Space Weather and Radio Astronomy at Sherwood Observatory.*
- 3. To collect and collate data from development equipment at Sherwood Observatory and to share it with the relevant scientific instructions.*
- 4. To showcase our experiences and to use them to help raise funds to expand the observatory.*

Next we moved on to discussing the report and talked about some of the principles in it. We finished off the meeting by having a tour of the installed equipment and the portable equipment store, the Radio Shack as Phil R lovingly calls it. The meeting closed at 8 PM.

A call went out during the month to our members requesting donations of computer equipment to help aid the data processing that we will be doing in developing our systems.

A number of you responded to the request, including:-

- Nigel Satterly donating 3PCs, Keyboards, Mice, and LCD screens.*
- Gary Levers donated a PC.*
- Peter Jenkins donated a 1Tbyte hard drive.*

And finally Neil Mudford for testing out these donations, sourcing required components and installing operating systems on them, and generally making them work to the required spec. Thanks to you all.

With the agreement of the Observatory Director, Craig Bradford; Neil M, Chris D and I have had a bit of a sort-out of the Inner Sanctum, and have made room for the additional equipment. A 8 way KVM switch has been sourced and ordered, this will allow up to 8 computers to be controlled by one mouse, keyboard and one monitor thus saving a great deal of space. Alteration of the shelving in there will need to take place to allow for safe seating of the computers. We hope to have this done this month, and have them integrated into our systems by the end of May.

During this past month the Radio Astronomy section of our website has become live thanks to Chris D (The Wiz) and some tweaking by Scott C. I don't have the knowledge of web design, but thanks to Chris with a lot of patience on his behalf, I can now edit articles at the "Front end". I hope this typifies the learning experiences of us all in the RA section.

In the website we now have:-

- *Introduction - A brief introduction to RA at Sherwood Observatory*
- *History - This is under construction but will contain the ideas of the original members through to where we are today. My intention is to update this every year using that year's report and the entries in the monthly EH magazine as the basis of information.*
- *Reports - In here you will find the yearly reports (2016 & 2017) that I have written for committee outlining the developments throughout the year, and projected future possible projects*
- *Contact - RA coordinators email address*

This is all live now and is globally visible.

The last thing to report is that the Graves mast head amplifier has gone down, so at present no signals are reaching the receivers. This we hope to have rectified shortly.

And finally the second meeting of the RA group is taking place this Saturday (7th April) at 6PM at the Obs. The agenda of that meeting is "The equipment we have" and will basically be a demonstration of the solar and meteor equipment and how to use it.

All are welcome.

Meteor watch

Hi All,

Just a quick note to let you know that the next meteor shower that we are opening up for is the Lyrids on Sunday the 22nd of April at 7.30pm.

The Lyrid Meteor Shower is usually active between April 16 and April 25 every year. It tends to peak around April 22/23. The Lyrids are created by debris from its parent comet Thatcher, which takes about 415 years to orbit around the Sun. Considered to be the oldest known meteor shower; the Lyrids are named after constellation Lyra. The radiant point of the shower - the point in the sky where the meteors seem to emerge from - lies near the star Vega, one of the brightest stars in the sky during this time of the year. The ZHR is estimated at 15-20 per hour.

Everyone is welcome, newcomers and old timers alike, but I would just like to ask that you bring your own deck chairs or the like as the observatory has a limited supply.

Due to the radio detection equipment being down for repairs, we will only be going ahead with this if the weather is favourable and the skies are clear.

And finally if you do intend coming then please drop me an email on my observatory email address - radio@sherwood-observatory.org.uk

*Best wishes,
Sparky*

The Radio Astronomy section is already proving an inspiration to some of our members. One of our newest members, Steve Nicholls, attended the inaugural meeting on 10th March and has been inspired to include articles about his beginner's experience in his personal blog. You can read some of his posts here:

<https://steve-nicholls.com/2018/03/10/listening-to-the-stars/>

<https://steve-nicholls.com/2018/03/17/what-is-radio-astronomy/>

<https://steve-nicholls.com/2018/03/26/do-aliens-exist/>

Society Meetings

March's Society Meeting saw the rearranged return of the ever popular and entertaining Paul Money, giving a talk titled "The Universe Above Us". He showed examples of atmospheric and astronomical phenomena that everyone has the chance of seeing and capturing images with only fairly basic equipment.

This month will be our Annual General Meeting, where we elect a Committee for the coming year and everyone has their chance to have a say and vote on how the Society is run. There will also be refreshments and food at the end of the meeting, so please bring along a contribution.

Upcoming society meetings:

April 24th – 48th Annual General Meeting.

May 22nd – The CMB and its Impact on Modern Cosmology – Prof Tasos Avgoustidis,
University of Nottingham.

June 26th – Viking Mission to Mars, Part One – Paul Money.

Members Astronomy Meetings

March's Members Meetings included the excellent as always PPOD given by Phil Randall, and also a discussion about recent disruptions to the Members Meetings.

Members Astronomy Meeting Diary

Date	Presenter	Subject
April		
4 th	Phil Randall	PPOD
11 th		
18 th	David Collins	The Design and Build of the 24" Telescope
25 th		
May		
2 nd	Phil Randall	PPOD

Public Events

Here is a report of the final Open Evening of the season, kindly provided by Nigel Johnson:

Public Open Evening – out on the telescope pad

On the 24th March we held our last public open evening of the 2017-18 winter season. As always, on the run up to the open evening the weather report was monitored. As Saturday drew closer the weather reports looked less favourable. Keeping fingers firmly crossed I hoped for a last minute break, but as we have seen occur so many times before, the weather did not play ball and we had total cloud cover for the entire evening. Having said that, I have been reliably informed that we still had 103 people come through the doors. I heard one of the members say that after being involved in public open evenings for many years he was still amazed that people still turn out when there's nothing to see. It shows there's still a portion of the community who are fascinated by the natural wonder above us.

On Saturday evening I was asked to help staff the telescope pad, where the Meade LX90 and the Skywatcher refractor would be in operation. Because we had no chance of viewing anything if we pointed the equipment skywards, we targeted a couple of familiar local land marks – the entrance hall at Kings Mill Hospital and the frontage of the Sir John Cockle pub on Sutton Road. It's a possibility that the main reason some of the people had come was just to look through a telescope, so that box was also ticked.

As the evening progressed there were several people who asked the expected questions, such as: what type of telescope is this? What would you say is the best telescope design? Some even asked, Can you show me the Moon? The latter group were gently let down by informing them that unfortunately, if you can't see the Moon with your eyes, the telescope cannot see it either. While showing the public the above landmarks we asked if they were local too. If they were, a game of 'Can you recognise the object you're looking at?' was played. This was done tried to make the objects a little more interesting, and, with a bit of

luck, they would feel they'd had their full money's worth. While viewing Kings Mill through the Meade a young girl of around 6 years old informed me she could see a nurse. I suggested she give the nurse a wave, which she did with her eye still up to the eye piece and looking at 90 degrees to Kings Mill. Looking up I saw this had made the mother smile. I asked the young girl if the nurse had waved back. "No", she said despondently. I reassured her by saying that maybe the nurse was busy looking after a patient, so didn't have time at the moment to wave, but I was sure she would if she could. Oh the innocence of the young. :-)

Nigel Johnson

We also held the last evening of our Night Sky Course. Here is a report from Course Co-ordinator, Val Barker:

Basic Night Sky Course 2018

The Spring Basic Night Sky Course completed on the 23rd March. The course should have finished on the 16th March, but due to the Beast from the East as it was called, we had to cancel one week of the course as the snow conditions at the observatory were really bad and beyond our control. I would like to thank Chris Hook for changing the Group Visit time that had been pre booked and paid for in advance on that evening to an earlier time. We asked the students if they would mind starting on the 23rd March at 8:15 instead of 8pm, all agreed and gave us their support. Thanks Chris for all of the trouble you had trying to change the group visit time.

We had 25 students attending the course comprising 22 Adults and 3 Juniors. We have gained 1 new society member for the observatory from the course, with additional membership application forms given out on the last evening.

Thanks to all of our knowledgeable lecturers who always deliver a professional evening: Phil Randall, Chris Hook, Rob Dawes, Angus Wright, Tony Fawcett, Nigel Johnson, Nigel Cunnington, Peter Jenkins FRAS.

To the volunteers I would like to say a great big thank you for your help on the night school evenings. We would not be able to run the night school course without your help and support: Ron Peet, Michael Lowe, Phil Randall, Gordon Smith, Mel Wright.

I would especially like to thank Nigel Johnson for his help and support with the administration of the course. Nigel and I would like to thank everyone who helped to make the Basic Night Sky course a huge success. With 1 new member, 13 CDs sold and night school fees, a total of £1288 was raised for Society funds.

Thanks again, Val.

And the other Course Co-ordinator, Nigel Johnson, has also sent in a report:

Basic Night Sky Course 2018

The Spring of 2018 saw another successful delivery of the Basic Night Sky Course. As we know all too well, any possibility of viewing the sky is weather dependent, but this year we were blessed with the first two weeks having clear skies. I would like to thank Rob Dawes for allowing time for viewing to take place on his night.

On the scheduled final night heavy snow arrived, courtesy of the so called 'Beast from the East'. Because of this we had to defer the final session and look at a possible alternative Friday evening. It was soon identified that because of the busy timetable of events at the observatory, the rescheduling of the session would likely result in a clash with one of the planned group visits, if we didn't want to leave a lengthy gap between the final two sessions of the course. Val liaised with the course students and the Group Visit Coordinator an agreement was reached. I would like to thank Val Barker and Chris Hook for going to so much trouble while trying to find a time that would suit all.

I'd like to thank Val for all the many hours of unseen work she did to make the course possible, and the ongoing work she did during the 6 week delivery to make sure everything stayed on track.

Because Val has already named all of the lecturers and volunteers I'll not do it again here to avoid repetition, but I'd like to echo her thanks and to say that without you the course would not be possible.

*Many thanks
Nigel*

And to finish our round-up of the final events of the season, here is a report from Phil Randall:

Line+Light Astrophotography Course

We held the last course this season on the 31st March, which was the event that had to be cancelled from the snowy weekend of the 4th March.

There were 10 students from all over the country, notably a couple had travelled from east London and one gentleman from Essex. As usual, there were presentation from Peter Jenkins and myself along with Chris Dakin running the scope and Sparky helping out with refreshments.

Unfortunately, we didn't see any sky as it was cloudy and raining for most of the night but everyone seemed to get a lot from the course and left more knowledgeable than they arrived.

Phil Randall

As the viewing season has now drawn to a close we would like to pass on our thanks to all of the members who have helped out. During the last six months we have provided:

55 Visits for Scouts, Guides, Schools and other groups.

Six Open Evenings

Two 6-week Basic Astronomy Courses.

Four Astrophotography Courses.

A 4-week display at Mansfield Museum, including a presentation and viewing evening.

Three other off-site presentation and viewing evenings.

Three Planetarium Consultation events at local stores and shopping centres.

Without your help none of this would be possible, and the Society would be unable to fulfil its charity remit.

Picture of the Month

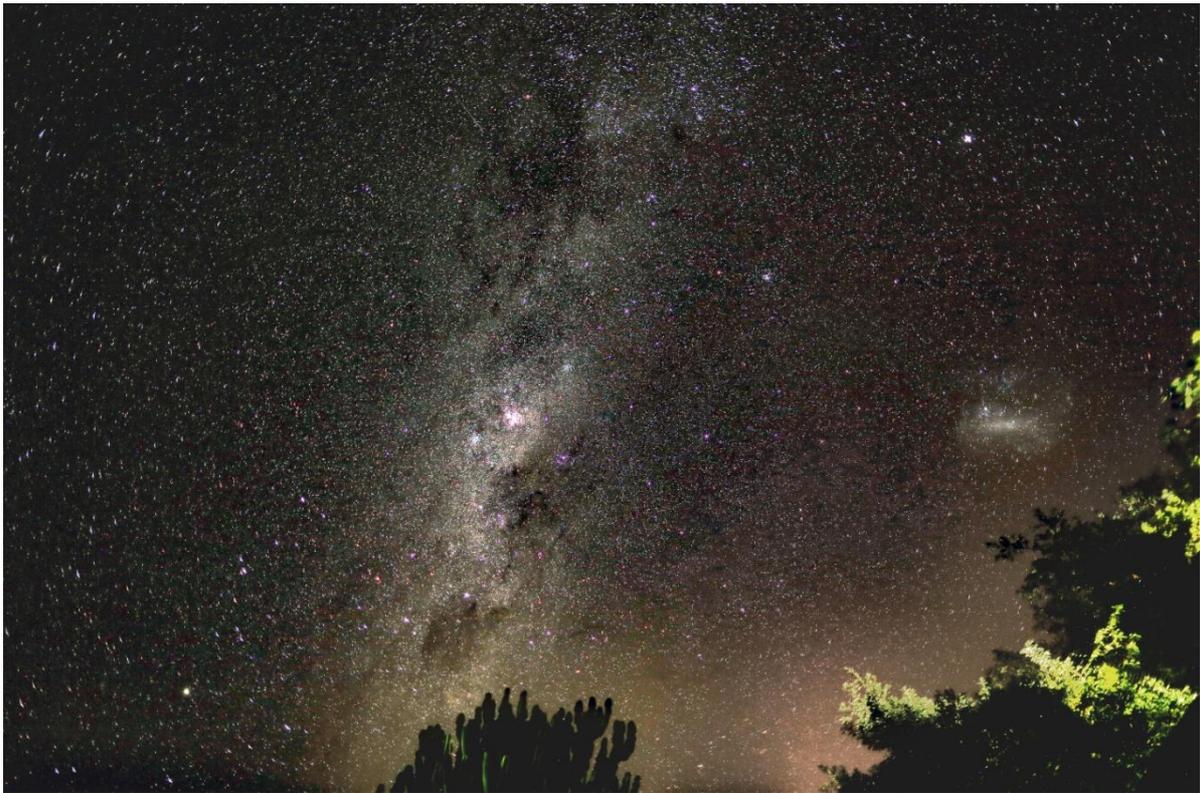
Congratulations to Ron Peet for his winning image this month of The Moon. Ron provided these details:

The Moon taken when Selene was waxing gibbous, 63.3% lit and 229,454 miles from Earth. 25th March.

Two other entries were received from Ron:



And Mike Paling sent in this entry of the Milky Way:



Correspondence

Cathy Beaumont has sent in this picture of the Soyuz capsule in which Tim Peake made his return to Earth which is on display at the National Railway Museum, York.



Graham Shepherd has uploaded a video to Youtube. It's from 1991 and shows how the scope used to look before it was changed from a 3 mirror to a 2 mirror system. You can access it with this link:

<https://youtu.be/CCCRjavhkjw>

It has also been included on the Society's website, Our Telescope, page:

<https://www.sherwood-observatory.org.uk/observatory/our-telescope>

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Internet Links

www.sherwood-observatory.org.uk - The homepage of the society.

www.twitter.com/sherwoodobs - The society Twitter stream.

<http://www.facebook.com/pages/Mansfield-and-Sutton-Astronomical-Society-at-Sherwood-Observatory/141550702600701?fref=ts> - The society Facebook page.

http://en.wikipedia.org/wiki/Sherwood_Observatory - Our entry on Wikipedia.

We hope you have enjoyed this edition of the newsletter, don't forget if you would like to comment on anything or submit an article yourself for inclusion in the newsletter or come across a website of interest you would like to share then don't hesitate to contact the editors.