

Number 130 – February 2018



Picture of the Month - February 2018

Double Cluster in Perseus – By Mike Paling

<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

Contents

- Welcome and Introduction
- Society News and Information
- Meteor Watch
- Society Meetings
- Members Astronomy Meetings
- Public Events
- Picture of the Month
- Correspondence
- Contact Details
- Internet Links

Welcome and Introduction

Welcome to another edition of EH. We have completed our outreach survey for the planetarium project, and there has been a great deal of hard work undertaken so far for this project which indeed is still continuing, please read on for more details.

We have a large number of group visits and a high interest in our forthcoming night classes, as with our open evenings our outreach programme is very important and we continue to need support from our membership, please see how you may wish to help out with these events.

Fact of the Month - Michael Lowe

"At minus 224 degrees Celsius, Uranus is the coldest planet in the Solar System. Although Neptune is further away from the Sun, it generates 2.61 times more energy than it receives, keeping it slightly warmer"

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

Society News and Information

Planetarium Update

The following update has been provided by Project Manager Steve Wallace:-

The end of January saw a landmark in our planetarium project - the public consultation phase closed.

I will give a more detailed analysis of the outcome at a February members meeting, but in brief, we received 258 paper and 412 on-line questionnaire returns, 1100 votes in our YES/NO boxes that we set up during our events in IKEA and Four Seasons, Mansfield, and interest in sending classes from 84 schools.

The overwhelming majority of the responses were positive, with only 5 no votes from the questionnaires and 5 no votes from the voting boxes (i.e. a 0.6% negative response). This is an excellent response both in terms of the total number and the nature of the response. This data will be invaluable as we seek funding. Thank you to everyone that encouraged and cajoled passing members of the public, visitors to the observatory, business contacts, friends and relatives to take part. The results would not have been as impressive without your help.

We are now entering the funding phase of the planetarium project, so if you know of any local businesses who might be willing to support us, either through work in kind or through direct contributions, please let me know.

By the time that you read this we will have probably submitted a planning application for the construction of a new car park adjacent to the reservoir. This is required to improve the visitor experience to our open evenings as the existing car park frequently fills to capacity early in the evening and we have to turn people away. The new car park will also improve safety as it will make it less likely that visitors will try to park on the road. The intention is to construct the car park over the summer.

Steve also has a contact e-mail address now, which is listed at the end of this newsletter (projectmanager@sherwood-observatory.org.uk)

Easyfundraising

A huge thank you to everyone who has 'shopped' and switched their internet searches to easyfundraising. We have to date raised £770.

However we need to make everyone aware of some small print (probably the size of atomic nuclei). It has been noticed that if certain items are purchased or holidays are booked directly with the company, then it is often (but not always) cheaper than going via easyfundraising. Please therefore check before purchasing that you are aware of any difference.

Security

Some kind soul decided to attempt to cut through the lock of the top car park during the Christmas break. This lock has now been replaced which means of course anyone that has completed the entry procedure now requires a new key. Please contact Phil Randall for their replacement. As this is a replacement it will be free of charge. (Phil's medication is on order!)

Membership Renewal

To make Phil feel better about giving out free keys we thought we'd let him remind you that membership renewals are coming soon:

I know there is still two months before renewals are due but some members are paying already as I anticipated. I have arranged for the updated Membership Renewal Form to be added as the final page of this edition of Event Horizon, and this will be added again in March. The form gives the details of the current subscription fee (£48) and how to pay with details of to whom any cheques need to be payable and our bank account details for direct transfers if this is easier for you. This form can then be emailed to me, as long as it is signed, and it is vital that it is received due to new legislation relating to Data Protection.

Thank you.

Phil Randall, Treasurer.

Meteor Watch - Nigel Cunnington

Over the Christmas period I reviewed the developments in radio astronomy in 2017 and I have written a report for the committee. The committee have reviewed it and are allowing me to publish it to the general membership. I intend holding regular monthly meetings at the observatory; the first will be on a Saturday evening in February (date to be announced) as most of the weekday evening are taken up with other events.

Anyone interested in RA at any level can get a copy of the report by emailing me at radio@sherwood-observatory.org.uk where your input is most welcomed. This will be used as the discussion document for our first meeting, from that the group can decide on how to move forward (based on committee approval) in 2018, I look forward to seeing you there.

Now a request for help:

Activity within the Radio Astronomy group is growing and it is becoming clear that there is now an increase in the need for greater computing power to support their ongoing projects.

If anyone has an old Windows 7 (or later) PC, or a hard disc drive, that they want to dispose of please get in touch.

It would be preferable if you could reformat the drive first to erase any data on it but if not we could arrange for that to be done by appointment in your presence if necessary.

If you think you can help please contact me at radio@sherwood-observatory.org.uk

Thanks for any help, Nigel (Sparky).

Society Meetings

A full house last month listened to an interesting talk by Meghan Grey about mapping the cosmic web. Bernard Henin provided the following report on the meeting:

We were very fortunate to have the Canadian born astronomer Dr Meghan Gray (based at the University of Nottingham) visit the observatory for the first time and give her interesting talk: "Mapping the cosmic web: the joys (and frustrations) of an observational astronomer".

Meghan considers herself an observational astronomer with a particular interest in galaxy evolution and large-scale structures. During her talk, she explained that one of her main tools in understanding the interaction and distribution of galaxies throughout our universe is gravitational lensing as this reveals the distributions of dark matter on large scales. Fundamentally it is the distribution of dark matter that drives large-scale extragalactic structures such as clusters and filaments.

Her research is based exclusively on the study of the A901/902 supercluster where she leads multiwavelength observations under the program; STAGES survey. This has revealed large dark matter structures within the A901/902 supercluster and provided insight on the interactions between the galaxies. Her study has shown how galaxies change when falling into a cluster as they experience a process referred to as ram pressure stripping (such as [NGC 4402](#)) where the gas within a galaxy is completely stripped out. Future surveys are planned in the coming years to scan a wider area of the sky in order to provide large scale study of super clusters.

There have been a few changes to the meeting program over the next two months.

Firstly the February meeting has been moved to Wednesday 28th February when Dr Julian Onions will be delivering his talk which was originally planned for the March meeting.

Mr Paul Money will now be delivering his lecture "The Universe Above Us" on Tuesday 27th March instead of this month as originally planned.

Upcoming society meetings:

Wednesday February 28th - Things That Go Bang in the Night (Sky) - Dr Julian Onions,
University of Nottingham.

Tuesday March 27th - The Universe Above Us - Mr Paul Money.

Members Astronomy Meetings

In addition to Phil’s excellent monthly PPOD, we had two more talks last month provided by our members, the first entitled "Multiple Gravity Research Systems” provided by Martin Braddock, very thought provoking (but I will never feel the same about mice again!).

The second entitled “Meteorites”, delivered by Alan Nickless provided another informative and interesting talk. If anyone else wishes to step up to the front of the lecture room, please add your name on the diary list. Thank you to Martin and Alan for taking the time and trouble to write and deliver their talks.

There is a little disruption to the regular Wednesday night meetings this month with two meetings moved to the following Thursday to make way for Group Visits.

Please note the first Wednesday meeting in March is moved to the previous day.

These changes should hopefully be clear in the following diary:

Members Astronomy Meeting Diary

Date	Presenter	Subject
February		
Wed 7th	Phil Randall	PPOD
Wed 14th	Closed for Group Visit - Moved to Thursday – See Below	
Thurs 15th	Planetarium Update	Steve Wallace
Wed 21st	Closed for Group Visit - Moved to Thursday – See Below	
Thurs 22nd		
Wed 28th	Society Meeting	Dr Julian Onions
March		
Tues 6th		
Wed 7th	Closed for Group Visit - Moved to Tuesday – See Above	

Public Events

Open Evening

A report from Michael Lowe on the January open evening:

Despite high winds, some rain, and clouds, we had 131 visitors from as far away as Shipley, Leeds, and Sheffield, at our first public open evening of the year on 27 January.

By the opening time of 6.45pm, the car park was full and consequently had to be closed. Visitors were advised to return later when the initial influx had started to leave. Most did, but some parked further up Coxmoor Road and walked back down to the site.

Although there was not a star to be seen, we were saved by a waxing Moon which was visible through the clouds for most of the evening. The decision was taken by Chris D and Gordon to open the dome despite the wind which almost destroyed the entrance marquee. They were also backed up by a couple of members' scopes on the pad. Despite this, there were some excellent views of our only satellite, and talking to people as they departed they said it had been a "wonderful experience."

Thank you to the following members who volunteered their services to help out and who made the event a great success. Chris Hook (main talk), Sparky (radio astronomy and meteorite display), Chris D and Gordon (main scope), Steve W and Clive (incident controller and building entrance control), Frank (bino tour), Derek (set up), Phil (set up, main entrance, astrodraw), Peter J (merchandise), Ron (set up, flight simulator game), Vic (set up), Rick (general help), Cathy (car park), David (set up), Cedric (pad), Nigel S (car park), Val (refreshments), Bernard (meet and greet), Nigel J (data collection at main entrance), Gary W (flight simulator game), Neil (Radio assist and talk to one group), and Gary L (set up and pad). I would also like to thank my son Ed who came along to help on the main entrance. Like Phil, he loves dealing with numbers too.

It was great to see a number of our newer members "getting stuck in" too. Nigel Satterly, who has only been a member for a couple of weeks, bravely took on car parking duties with myself and Cathy (hope we've not put you off coming again Nigel). Cedric Bradley travelled in from Long Benington, and kindly brought his scope for visitors to use. Neil Mudford assisted Sparky and gave a talk to one group of visitors. Peter Wilson arrived with a few members of his family to have a look round and to get a taste for the next event in February where he will be bringing his equipment for use on the pad.

The next event (our penultimate) will be held on Saturday 24 Feb. Please make a note in your diaries. If you are able to help in either setting up and assisting at the event (or both), please add your name to the volunteer list which is displayed on the lecture room noticeboard. You can also speak to me at the observatory on a Wednesday night, or, contact me via the events email which is: events@sherwood-observatory.org.uk

Please remember, we rely on your help to make these events happen.

*Thank you
Michael Lowe
Public Events Coordinator*

Wex Photographic and Line+Light Astrophotography Course

Report from Phil Randall:

We ran another successful astrophotography course with our friends at Line+Light on 21st January, this one organised by Wex Photo Video, a retail photographic company based in Norwich.

There were 12 people booked on the course but one had flu and one didn't turn up on the day, so 10 took the course. The weather was not helpful to the event, as we suffered quite a snowfall on the Sunday morning and this turned to rain as the afternoon wore on. Conditions were slushy outside so very few people ventured out to do any photography of any sort, as the sky didn't clear at all.

However, inside, Phil and Peter did their usual talks and Peter did an extra presentation on how to use Adobe Photoshop, all of which was well received. Many thanks to them both along with Chris Dakin, Gordon Smith and Gary Levers who came along to help and to make sure the evening ran smoothly. From Line+Light, we had Dan Billings (also a society member) and Chris Upton.

Course members came from all around the country including Suffolk, Solihull, Southwell and Shirebrook. They all left with very positive comments about the evening despite the weather. In fact, we have had feedback from Wex themselves saying that their online feedback is excellent and they are wanting to arrange future dates.

Our next course is a Line+Light course on the 18th Feb with a final one arranged for the season on 4th March.

Mansfield Museum

Another report from Phil:

Along with our astrophotography exhibition at Mansfield Museum (which runs until the 9th February if you've not been to see it yet), our society agreed to run an astronomy event on the 22nd January. The idea was to set up a telescope and view whatever we could see in the night sky, although being in the centre of town and having quite tall buildings blocking our view, it was expected to only see Orion, Taurus, Auriga and Gemini.

However, the clouds rolled in to block much of the viewing so we were limited to the odd star now and again and a brief view of the Pleiades through binos.

Thanks go to Sparky who brought his meteorite collection to show around the assembled group which helped cover the lack of viewing.

Many thanks to Cathy, Val, David Branston, Scott, Gordon Smith, Chris Dakin, Hayley McCallion, Sparky and Phil for their help on the night.

Night Class

A huge thank you to Val Barker and Nigel Johnson who have worked hard to fill (in fact we are now over subscribed) the first Basic Night School Course of 2018. Thank you to all the lecturers who have kindly agreed to give up their time in preparing and delivering the talks. We now need scope operators and members willing to make tea and coffee for our guests. The scope operators will be approached by individual lecturers this year, but anyone wishing to join in with general help, please add your names to the course diary in the lecture room. Thank you.

2019 Mansfield Museum Exhibition

A message from Cathy:

Some very good news - in July/August 2019 MSAS will be having an exhibition at Mansfield Museum.

Despite the fact that the summer months of 2019 sound a long way off we're already starting to make plans for this because it will take a lot of organisation and preparation.

This will be in the largest of the exhibition rooms (a very big space to fill - almost 30' wide x 51' long) and will be a really exciting project for us. We want to reflect the different aspects of what we do as well as look at the history of the society and what we're planning and hoping for the future.

I'll let you know more details as our plans develop but we would like the exhibition to be exciting to look at with as many artefacts, models and visual information as possible. If you have any ideas or would like to be involved in any way please let us know.

The timing is spot on - it will coincide with the 50th anniversary of the first moon landing so I imagine there'll be a lot of news/publicity at the time which we hope will encourage interest in our exhibition too. I'll keep everyone updated but in the meantime do get in touch if you've any suggestions or would like to help in any way.

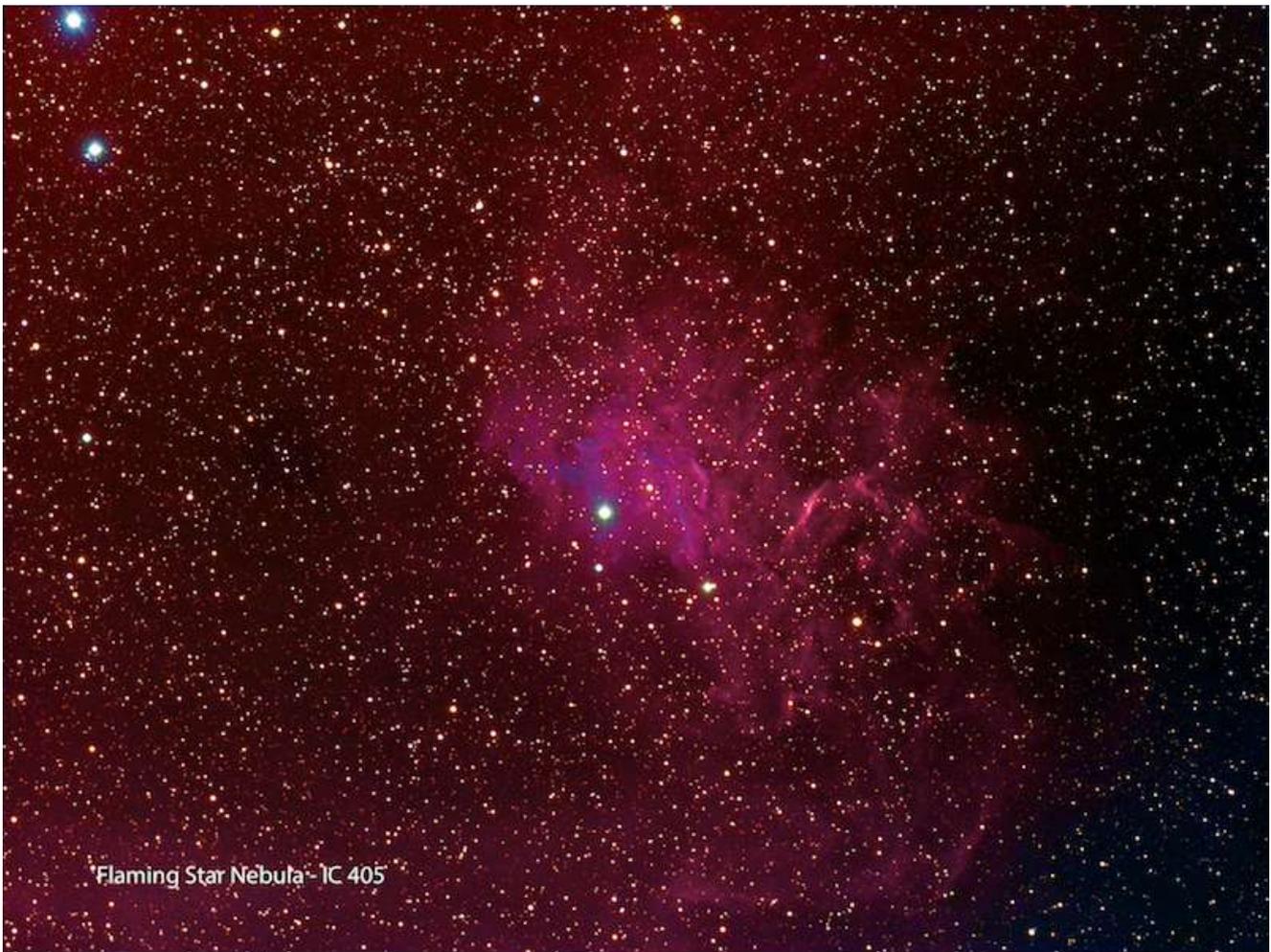
Cathy.

Picture of the Month

Congratulations to Mike Paling for his winning image this month, details are:

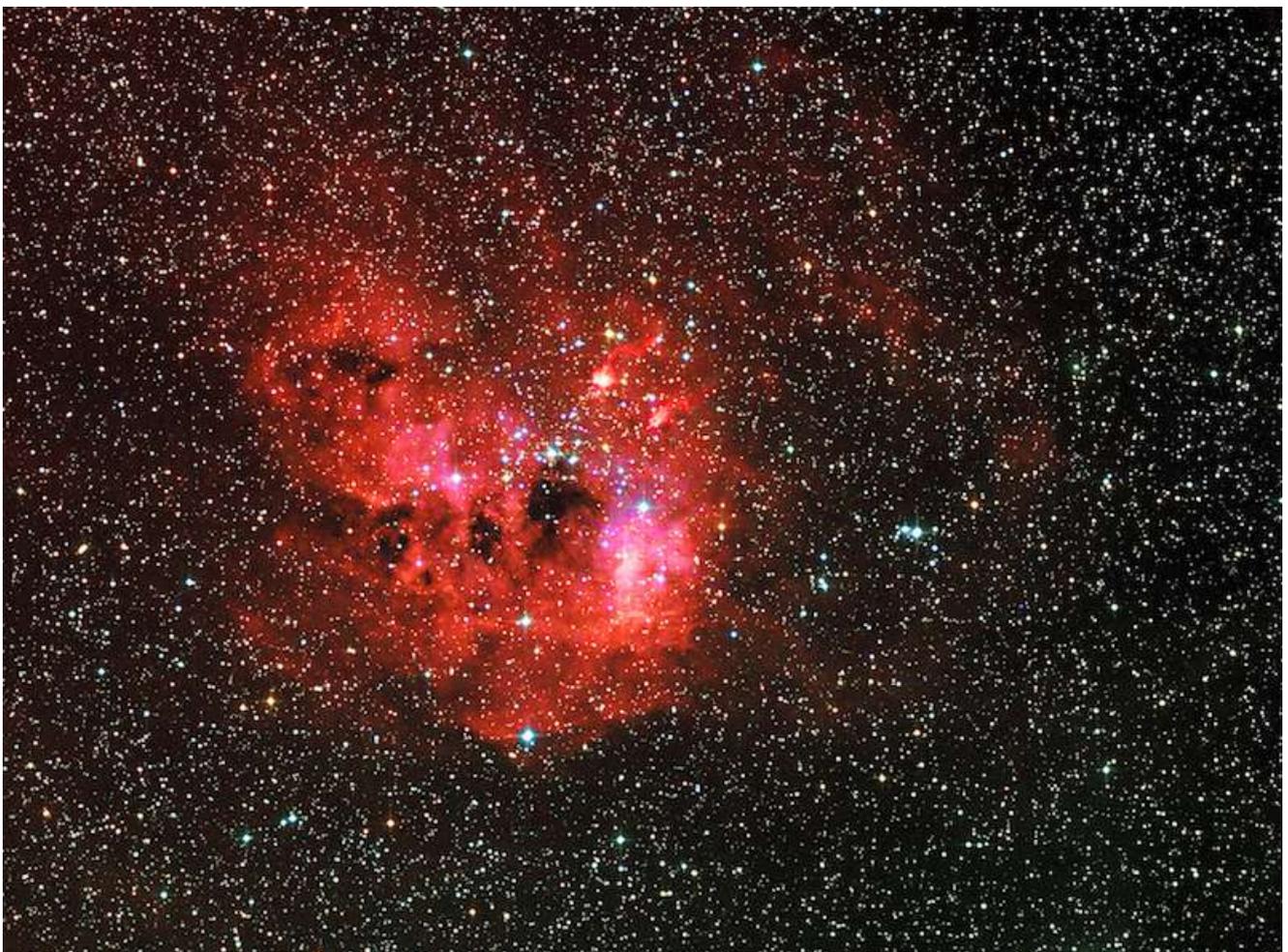
This Double Cluster in Perseus (NGC 869 and NGC 884) lie at about 7500 Light Years away. 5 x 300sec images in LRGB which were calibrated and stacked in MaximDL and processed in Photoshop.

Mike also provided the following three wonderful images:





The following image is of IC410 - The Tadpoles Nebula:



Ron Peet submitted the following images of the Moon this month:







Correspondence

Equipment for Sale

From Barry Jackson

Orion 90mm table top Starmax £125.

Skywatcher A.Z goto tripod with synscan R.C. will take a 127mm scope £130.

Both little used, in mint condition.

Email newsletter@sherwood-observatory.org.uk for Barry's contact details.

Contact Details

Chairman, Chris Hook - chair@sherwood-observatory.org.uk

Vice Chairman, I.T Specialist & Website Administrator,

Chris Dakin - vicechair@sherwood-observatory.org.uk

Observatory Director, Craig Bradford - obsdirector@sherwood-observatory.org.uk

Deputy Observatory Director & Radio Programmer,

Nigel Cunnington - radio@sherwood-observatory.org.uk

Secretary, Cathy Beaumont - secretary@sherwood-observatory.org.uk

Treasurer, Phil Randall - treasurer@sherwood-observatory.org.uk

Public Events, Michael Lowe - events@sherwood-observatory.org.uk

Night Sky Courses, Val Barker & Nigel Johnson - course@sherwood-observatory.org.uk

Group Visits, Chris Hook - visits@sherwood-observatory.org.uk

Groundsman, Jim Rowlands - grounds@sherwood-observatory.org.uk

Planetarium Project Manager,

Steve Wallace - projectmanager@sherwood-observatory.org.uk

Public Relations, Steve Binns - publicrelations@sherwood-observatory.org.uk

Newsletter Editors,

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

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.

Membership Renewal Form 2018/19

Section 1 – Member Details			
Name		Membership Number	
Has your address changed since last year?	Yes / No	If Yes, please complete next 2 lines*	
Address*			
Post Code*		Telephone Number*	
Has your email address changed since last year?	Yes / No	If Yes, please complete next line[#]	
Email Address[#]			
General Data Protection Regulation - Are you happy for MSAS to hold all this information in both paper and electronic form in order for designated committee members to contact you when required?			Yes/No
Section 4 – <u>GiftAid</u>			
<div style="display: flex; align-items: flex-start;"> <div style="font-family: cursive; font-size: 1.2em; margin-right: 10px;">giftaid it</div> <div> <p>Use <u>GiftAid</u> and you can make your membership fees worth more. For every £1 you give us, we can claim an extra 25p from HMRC. This means that £10.00 of subs can be turned into £12.50, as long as your subs are made through <u>GiftAid</u>. Please confirm below if you are eligible.</p> <p>To qualify for <u>GiftAid</u>, you must pay an amount of Income Tax and/or Capital gains tax at least equal to the tax that the charity reclaims on your annual subscription in the tax year (currently 25p for each £1 you give). You can cancel future gift aid donations at any time by contacting the secretary.</p> </div> </div>			
I wish to pay my annual subscriptions to Mansfield and Sutton Astronomical Society by <u>GiftAid</u>			Yes/No
Signature		Date	

On completion, please return this form, along with your subscription, to:

**The Treasurer,
Sherwood Observatory,
Coxmoor Road, Sutton in Ashfield, Notts, NG17 5LF.**

**Cash, cheques or bank transfers are acceptable. Cheques should be made payable to
Mansfield and Sutton Astronomical Society (MSAS),**

and bank transfers can be made to sort code 403201 account no 31325361

Subscription and a completed version of this form need to be received by the Treasurer by the 31st March.

Annual Subscriptions for 2018/19 are £48.00

Treasurers Use Only

Chq / Cash / BACS	Amount £	Date Received / /	Accts /	List /	Website / /	Ack'd / /
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