

# SPACEWATCH

the newsletter of the Abingdon Astronomical Society

10<sup>h</sup> May 2021

AGM

+

**Robin Morris on 'The missing twin (does the Sun have one too?)**

**Meeting will be on Zoom**

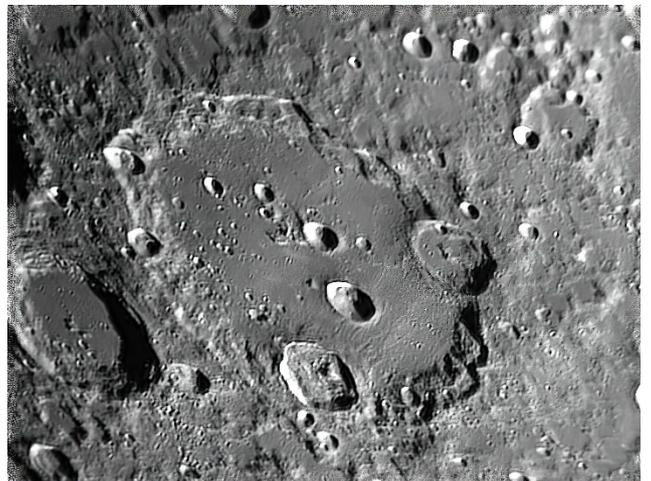
**EDITORIAL**

I think we should probably rename this edition of Spacewatch as the lunar issue. I am not sure why but imaging the moon seems to have taken over the internet and our members are no exception. Hopefully you enjoyed the supermoon but remember this is a construct from the astrology community that seems to have taken over the fascination of the press, along with giving all the full moon names their Native American equivalents. I am not sure why this has taken off in such a big way in the UK though. In society news we have heard that if everything goes according to plan then we should be allowed back into the church hall in September (well actually the end of June but our program finishes before then). Given the fluid nature of the situation however we will be deciding quite late about this. It will also depend on what social distancing and mask measures we will be obliged to use. It is also important what the membership thinks about this and whether they are comfortable going back. If you feel strongly either way about this please let a member of the committee know. As you will be aware we only have two months left in this session and there will be no Spacewatch after June until September. We are still looking for speakers for next years program so if you have any ideas for speakers or topics you would like to see covered then please contact any member of the committee. The same applies to topics for the beginner's meetings.

For those interested in solar observing the cycle seems to be starting to pick up and the rate of rise is suggesting that the next solar maximum may come a year early. Certainly, there has been lots of activity both in white light and in H-Alpha. I probably need to start getting the Ca K setup out and running. It is worth now checking on solar activity and one of the best web sites for this is <https://www.spaceweather.com/> Of course we also have the partial solar eclipse in June on the morning of the 10<sup>th</sup> June and although only 20% of the sun will be covered this will also be of interest. More information on this in next months Spacewatch and in the May Beginners meeting.

The editor of "SpaceWatch" is Owen Brazell, who would very much appreciate your stories & contributions. In particular whilst many fine images are being posted on the discussion group it would be nice to have some in the SpaceWatch. Please send any news, observations, photos, etc. to:

Mail: Owen Brazell, 15 Spinage Close, Faringdon, Oxfordshire SN7 7BW or [owenb1367@gmail.com](mailto:owenb1367@gmail.com)



Clavius – Chris Pickford

## REPORT OF LAST MEETING

Gwyneth Hueter

April's talk: Eise Eisinga and the oldest working planetarium.

It's always good to hear of people's trips to unusual places and Dr Lilian Hobbs (not a member but lives in the Southampton area) had her interest piqued when she heard about an unusual little building in Franeker, northern Holland, which used to contain a wool-combing business in the rear part and has a working model of the solar system in the front. There is a sundial high on the wall at the front of the house.

Eise Eisinga is the gentleman who built this amazing gadget into his ceiling. He was born in 1744 in the neighbouring small village of Dronrijp and was expected to follow his family into the wool-combing business but he had a brilliant brain - writing books on maths and astronomy by the time he was 17. By age 24 he had become a master wool-comber.

He had heard about an conjunction of Mercury, Mars, Venus, Jupiter and the Moon on 8/5/1774 and some mad clergyman Eelco Alta spouting that this conjunction would make the solar system revert back to the beginning of the Sun's formation and the Earth would end up falling back into the Sun.... Eisinga reacted to this scaremongering by aiming to produce proof that this was just that.

He started building into his ceiling a huge orrery with the orbits of the six known planets of his time. The scale is 1mm to one million. It covers the whole ceiling. (It would have been impossible to add the orbit of Uranus. Uranus was discovered in the same year that he finished.)

He spent seven years building the model, and made the parts himself. Apart from 10,000 metal nails, the rest is wood, and he gilded the planets on one side to imitate sunlight. The planets aren't to scale, but he did add the four Galilean satellites and five Saturnian ones, according to Lilian's photographs. The ellipticity of the orbits is indicated accurately, as is the year, which is in a dial

that has to be updated every 22 years. That's the number of years that fit on the dial.

Eisinga wrote a manual on how to maintain it and made some dials above the bed, showing Moonrise and set. All this time he had a patient wife and young family, but she did put her foot down when he planned that the sole pendulum that would drive all this would be hanging into the cupboard space behind the bed. So he wanted the cupboard to go. He had already calculated all the movements himself but in the end the cupboard stayed and he had to reset the gears in order to account for shortening the pendulum by 25 centimetres. It swings 80 times a minute.

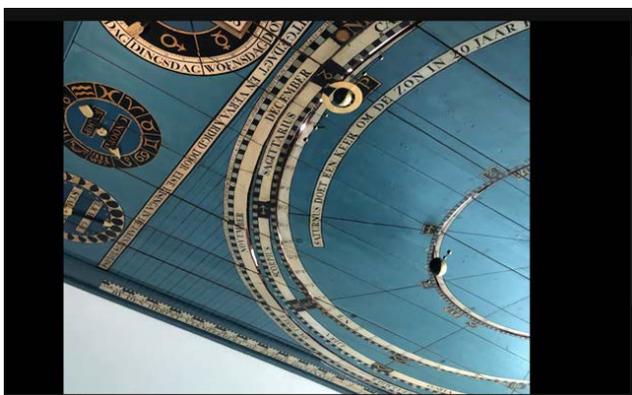
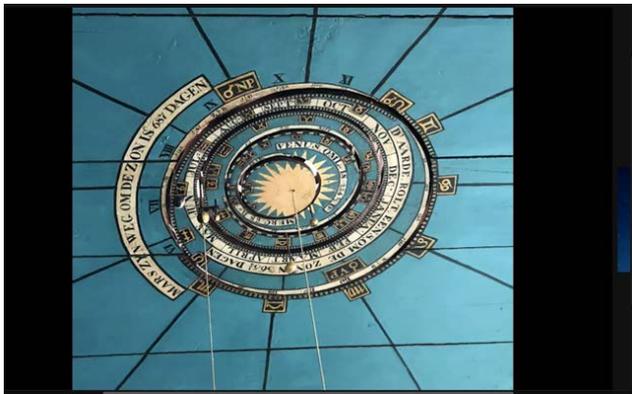
His amazing feat gave him recognition and he was giving lectures thanks to a Professor van Swinden, but he was exiled twice, once to Germany during some kind of political crisis and when he was arrested on another occasion. He came back in 1796. His wife had died in 1788 but he remarried and had three children. In 1816 he was given an honour by the King of the Netherlands (William I) who visited him in 1818, which is why the place is called the Royal Eise Eisinga Planetarium.

The house was eventually bought off him by the King in 1825, for a hefty 10,000 guilders, and he was able to live there rent free. When he died (1828) he was buried in Dronrijp, and there is a little plaque by the church.

Opposite the planetarium is a monument with a bust of Eisinga. Franeker is west of Groningen on the A31 and Dronrijp is not far from the western side of Franeker, which is still just a small town. Next to the planetarium is a little museum.

Lilian took lots of excellent shots and gave me permission to screenshot and use whatever I liked. There are plenty online but hers are among the best I've seen as it shows they were taken by someone with astronomical knowledge. I also see that Jan Oort (he of the Cloud) was born in Franeker in 1900.

The five pictures show the centre of the orrery in the middle of his ceiling, with the four inner planets and the Moon; the Moonrise and Moonset panels, with Sunrise and Sunset in the middle panel; part of the orbits of Jupiter and Saturn, complete with some of their satellites; part of the gear system set into the space between the roof and the ceiling, and the intricate sets of strings that run the different gear wheels.



**THE NIGHT SKY FOR MAY 2021**

**Steve and Cristina**

As with last year April has been kind to us with plenty of clear nights to observe and image the night sky, just in time too, as the nights are now becoming much shorter and astronomical dark getting ever later.

It is a shame we had so few clear nights throughout this last winter, I always look forward/ live in hope when we get to autumn, that we are going to have plenty of crisp clear nights, but for the last couple of years at least, I have been disappointed.

Galaxy season is in full swing now as we look outward, through the least densely occupied parts of our own galaxy, at the wonders intergalactic space holds for us. Hundreds of galaxies in the constellations of Corvus, Crater, Hydra, Sextans, Virgo, Leo, Coma Berenices, Leo Minor, Canes Venatici and Ursa Major to

name a few. As well as the galaxies we are now seeing the Globular clusters starting to show up, M53, NGC 5053, M3 and M5 being the first of the more well-known GCs to come into view, followed closely by M13 and M92. So plenty worth looking up for.

## The Planets

**Mercury** – is emerging into the evening sky on the 5<sup>th</sup> as it approaches greatest elongation east. From Abingdon, it will become visible around 21:02 (BST) as the dusk sky fades, 9° above your north-western horizon. It will then sink towards the horizon, setting 1 hour and 43 minutes after the Sun at 22:17.

On the 12<sup>th</sup> From Abingdon, it will become visible around 21:26 (BST) as the dusk sky fades, 10° above your north-western horizon. It will then sink towards the horizon, setting 2 hours and 5 minutes after the Sun at 22:51.

Mercury is at Dichotomy on the 12<sup>th</sup>, highest altitude on the 16<sup>th</sup>, and greatest elongation East on the 17<sup>th</sup>.

**Venus** – Not a great month for observing Venus, setting at around 22:15 on the 16<sup>th</sup> in the NW, around an hour after the Sun has set. Venus close proximity to the Sun means the planet is setting in a fairly bright dusk sky.

**Mars** – is currently an early evening object, now receding into evening twilight. From Abingdon, it will become visible around 22:21 (BST) as the dusk sky fades, 17° above your western horizon. It will then sink towards the horizon, setting 3 hours and 31 minutes after the Sun at 00:36.

On the 16<sup>th</sup> there will be a Conjunction of the moon and Mars. The waxing crescent moon will swing about 2 degrees to the south of Mars in the evening sky.

**Jupiter** – has recently emerged from behind the Sun. From Abingdon, it is visible in the dawn sky, rising at 03:06 (BST) on the 8<sup>th</sup> – 2 hours and 16 minutes before the Sun – and reaching an altitude of 13° above the south-eastern horizon before fading from view as dawn breaks around 04:58.

On the 4<sup>th</sup> there will be a Conjunction of the moon and Jupiter. The waning crescent moon will swing about 4 degrees to the south of Jupiter in the dawn sky.

**Saturn** – has recently emerged from behind the Sun. From Abingdon, it is visible in the dawn sky, rising at 02:33 (BST) on the 8<sup>th</sup> – 2 hours and 49 minutes before the Sun – and reaching an altitude of 13° above the south-eastern horizon before fading from view as dawn breaks around 04:34.

On the 3<sup>rd</sup> there will be a Conjunction of the moon and Saturn. The last-quarter moon will swing about 4 degrees to the south of Saturn in the dawn sky.

**Uranus** - Uranus is not visible this month.

**Neptune** – Neptune is not visible this month.

## Meteor Showers

**Eta Aquariids** - This meteor shower has a relatively broad maximum; you can watch it the day before and after the predicted peak morning of May 5. Hopefully, the waning crescent moon won't spoil the show. The shower favours the Southern Hemisphere and is often that hemisphere's best meteor shower of the year. The radiant is near the star Eta in the constellation Aquarius the Water Bearer. The radiant comes over the eastern horizon at about 4 a.m. local time; that is the time at all locations across the globe. For that reason, you'll want to watch this shower in the hour or two before dawn, no matter where you are on Earth. In the southern half of the U.S., 10 to 20 meteors per

hour might be visible in years when you have a dark sky. Farther south – at latitudes in the Southern Hemisphere – you might see two to three times that number on a dark, moonless night. Meanwhile, at northerly latitudes – like those in the northern U.S. and Canada, or northern Europe – meteor numbers are lower for this shower.

In 2021, most meteors will probably be visible in the hour or two before dawn on May 5, though under the light of a rather wide waning crescent moon. The broad peak to this shower means that some meteors may be seen for a few days before and after the predicted optimal date.

## Comets

There are no comets easily visible for amateurs this month as they are all less than 10<sup>th</sup> magnitude

## Deep Sky Objects

**M58** – An intermediate barred spiral galaxy, 68 million lightyears away in the constellation of Virgo.

**M61** – An intermediate barred spiral galaxy, 52.5 mly away in the Virgo cluster of galaxies

**M90** – An intermediate spiral galaxy, 60 million lightyears away in Virgo

**M91** – A barred spiral galaxy, 63 mly away in the Virgo cluster

**M98** – An intermediate spiral galaxy, 44 mly away in Coma Berenices

**M99** – A grand design spiral galaxy, 49 mly away in Coma Berenices

**M100** – Another grand design spiral galaxy, 55 mly away, one of the largest and brightest galaxies in the Virgo cluster

**NGC 4147** – A Globular Cluster, 60 thousand lightyears away in Coma Berenices, discovered in 1784 by William Herschel

**NGC 4361** – A Planetary Nebula, 2.9 thousand ly away in the constellation of Corvus

**M68** – A Globular Cluster, 33590 ly away in Hydra

## OTHER ONLINE TALKS

All meetings for the first half of the session will now be online using Zoom.

The Virtual Astronomy Club:

<https://www.star-gazing.co.uk/WebPage/virtual-astro-club/> who are offering free 7 pm Zoom meetings on a Tuesday and Thursday. PDFs of recent talks are here:

<https://www.dropbox.com/sh/9k7medirj1gkwt/AAC4dqakRuUiYIJJHgz0KKqma?dl=0>

The BAA are also doing virtual webinars which are open to all at

<https://www.britastro.org/meetings>

Look for the webinars page. They are also doing some presentations via Zoom as well which can be seen on their web page. If you miss them then they are available on their YouTube channel afterwards

**Observing evening: There are no longer any observing sessions until September as it is not dark enough at a reasonable time**

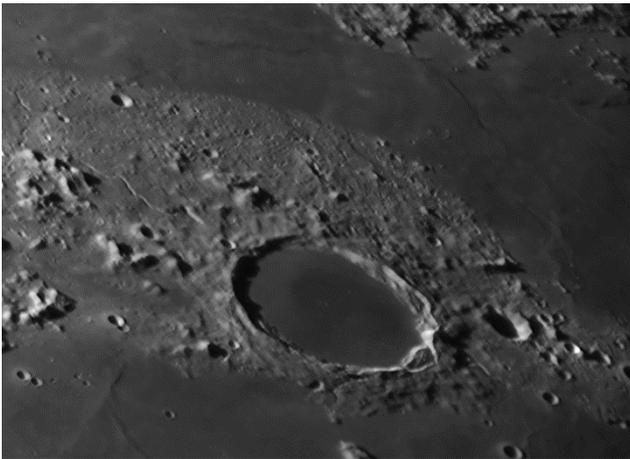
**Beginners' meetings: As we no longer have access to our hall due to the Covid situation we are going to be running a series of Zoom beginner's meetings. The next one will take place on May 24<sup>th</sup> and the topics to be covered include Asteroids and minor bodies and observing the Sun in H-Alpha and the Solar Eclipse on June 10<sup>th</sup>**

**New Mailing List: If you have not already done so, why not subscribe to our new email mailing list. The list is called 'aaslist'. Members use the list to alert each other about celestial events and to chat about amateur astronomy. The list is quite active, with several messages most weeks. This will also in the current circumstances be the main form of information going forward To subscribe to aaslist and to read through previous messages click on:**

<http://lists.abingdonastro.org.uk/mail.cgi/list/aaslist>



Rupes Recta – Ian Smith



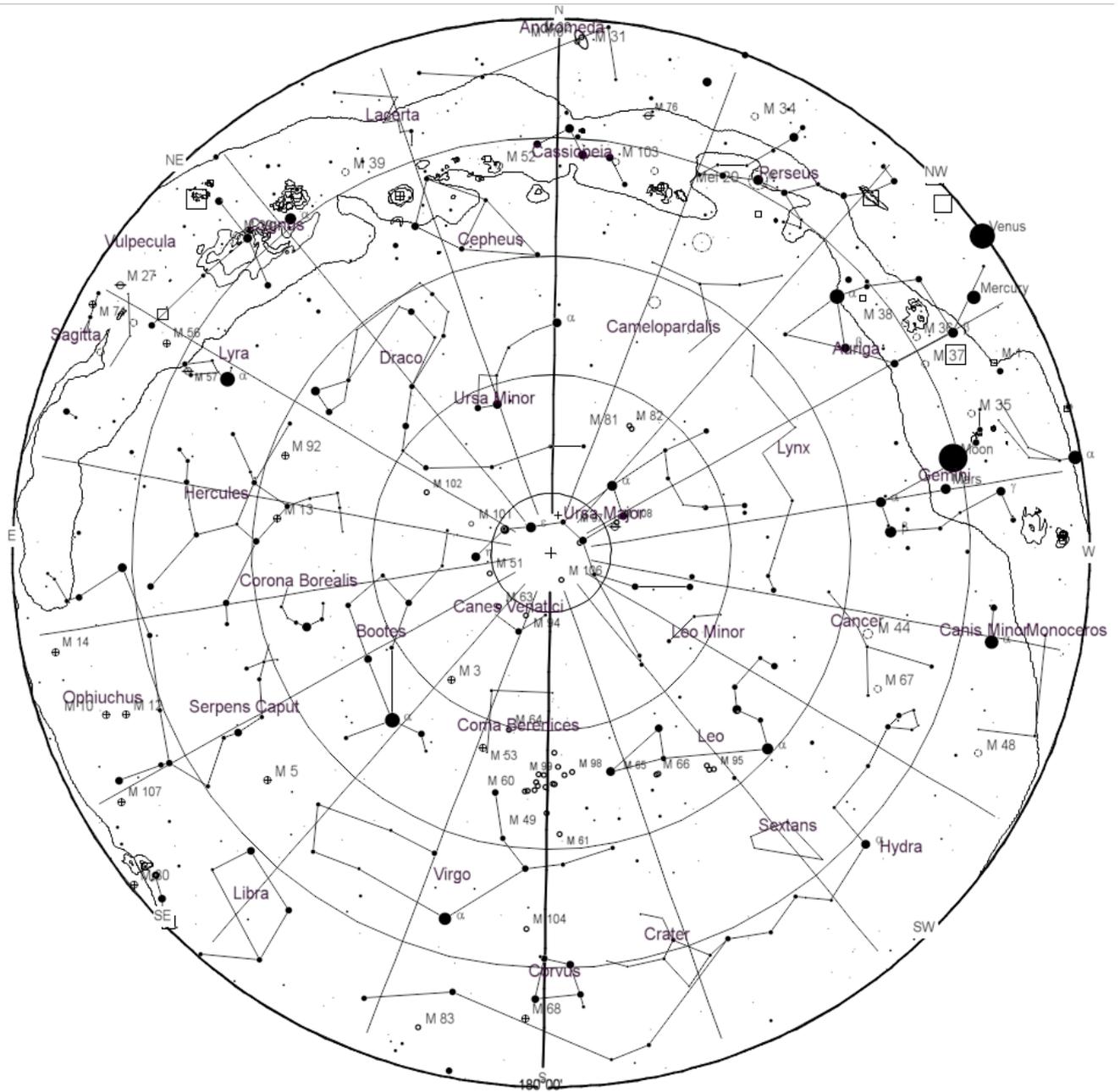
Plato



Alpine Valley

# STAR CHART

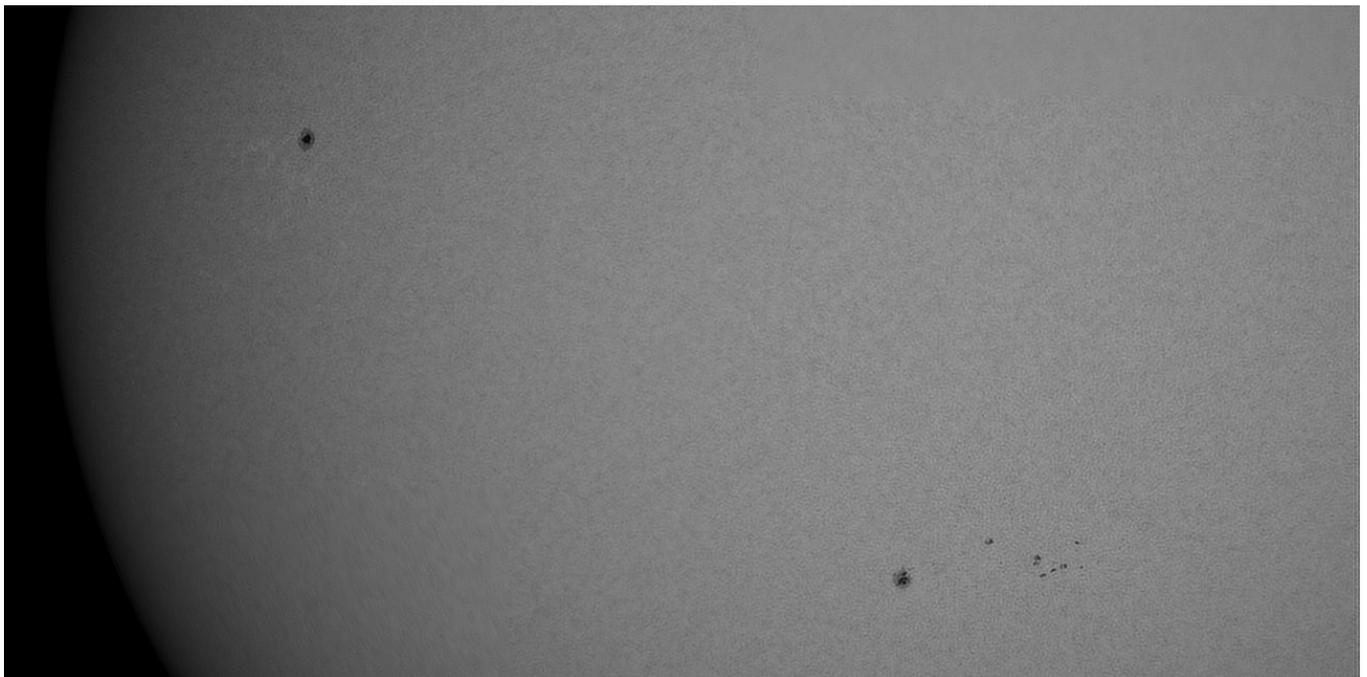
The night sky at 22:00 (DST) Saturday 15<sup>th</sup> May 2021



MOON PHASES MAY 2021

Moon phases and solar and lunar rise and set times for May 2021

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					



Images from 13:52 UT on 22nd April 2021 showing the sunspot near the eastern limb (AR2818) and the group of sunspots to the south and west (AR2816). 1800 frames were collected using SharpCap, with the best 10 % stacked in Autostakkert 3. Some sharpening by deconvolution applied using Imppg and then the brightness and contrast were altered in Gimp

2.10 to enhance the sunspots and the faculae around AR2818. Image also flipped vertically so north at top and east to left.

Vixen 60 mm F/11.7 achromatic refractor on a Stellarvue M4 mount with RA drive, TS Optics Herschel wedge with ND 3 and continuum filters and a monochrome Celestron Neximage Burst 1280 x 960 pixel camera.- Chris Holt



M51



M 106



M97 in H-Alpha

All the above images by Themis Tsikas – data The telescope was a 10-inch f/4 reflector with a Baader coma corrector. Camera for the galaxies was a 450D Canon and for the planetary nebula an Atik16ic mono CCD with an Astronomik H $\alpha$  filter. Autoguided with a 300mm lens and a ZWO ASI130MM camera. APT software for capture, PHD2 for guiding, EQMOD for EQ6 mount control. DeepSkyStacker for the galaxies, IRIS for the planetary and PixInsightLE for post-processing. 4 hours for the Owl, hour and a half for M51, 2 hours for M106, all in 5-minute snaps.



M 51 – Steve Creasey



© Steve Creasey Photography

M 106 – Steve Creasey



Sun Halo – Steve Creasey



© Steve Creasey Photography

M5 – Steve Creasey



© Steve Creasey Photography



**Messier 13**  
 Globular Cluster  
 Hercules | 22,180 light years  
 Wantage, UK - 25<sup>th</sup> April 2021

**Acquisition details:**  
 AA 294C Protec  
 EdgeHD8 + Optolong CLS  
 EQ6R-PRO, Guided  
 APT 3.87.9 | PHD2.0

**Integration time:**  
 48 x 180s Lights  
 2hr 24mins  
 Gain 220 HGV @ -15°C  
 Processed in:  
 Siril 0.99.8.1

  
 Coopers  
 Lane  
 Observatory

© Roland Gooday 2021



**Messier 13**  
 Globular Cluster  
 Hercules | 22,180 light years  
 Wantage, UK - 25<sup>th</sup> April 2021

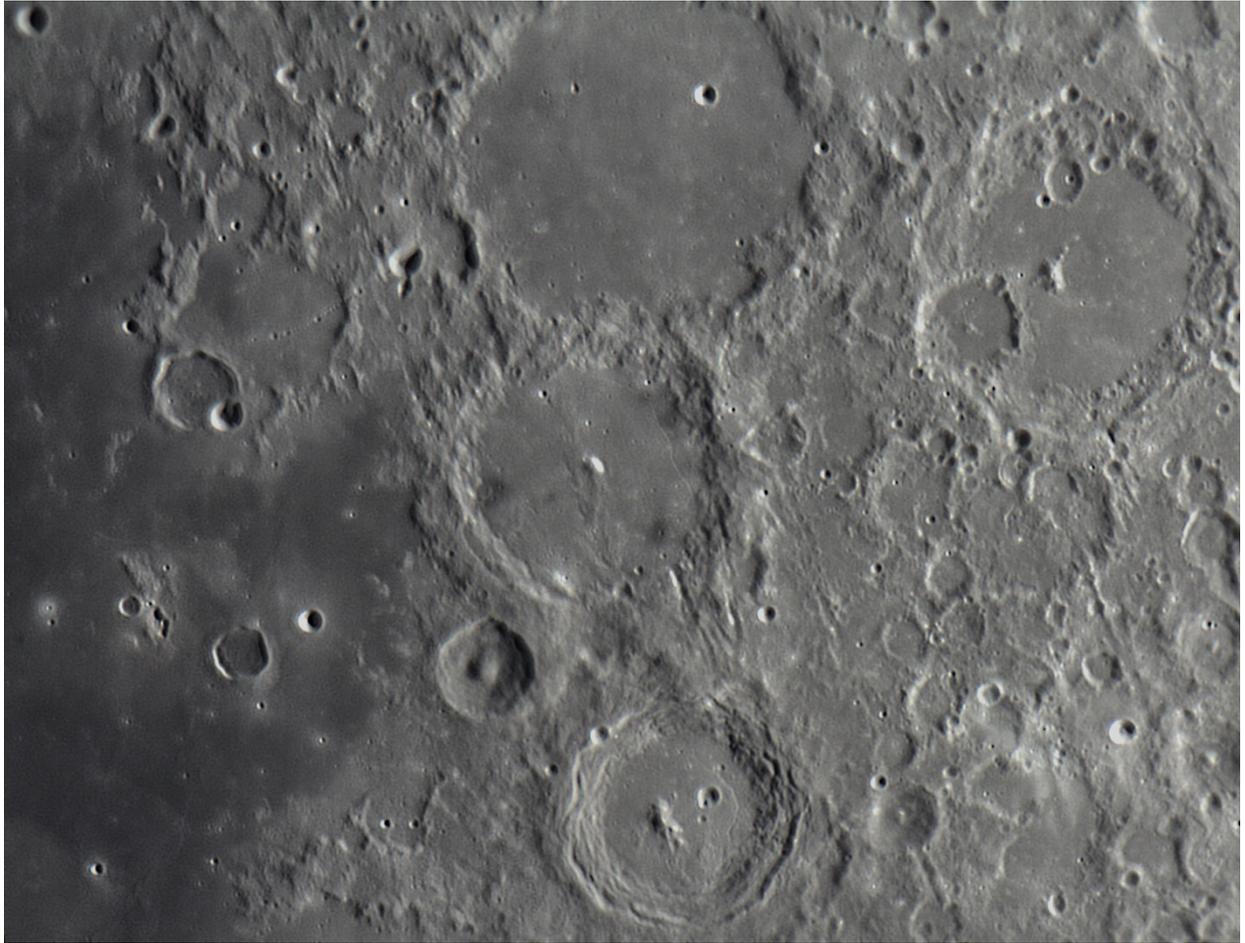
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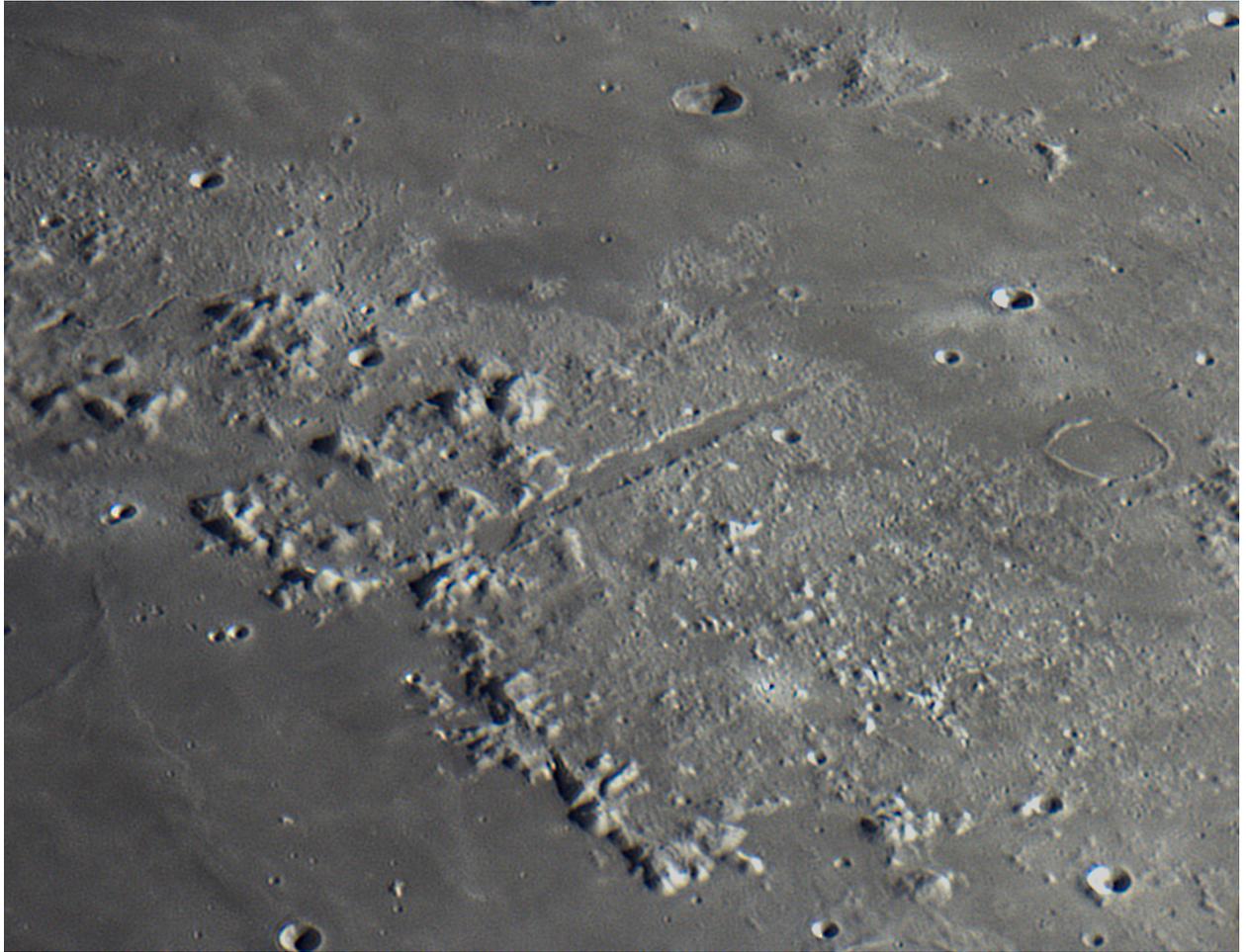
  
 Coopers  
 Lane  
 Observatory

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Roland Goodhay



Crater Alphonus and dark spots



Alpine Valley



Rupes Recta – last three images from Trevor Pitt

Beginners Meeting Program 2020/2021

**2020/21**    **Long Talk**

**MAY**        Dwarf Planets, Asteroids, & Comets

**JUN**        Imaging Planets

**Short Talk**

Sun in H-Alpha

Astronomy 150-1543 AD: A 1400 year wait,  
and then Copernicus'

# Abingdon Astronomical Society

52 Bull Street, Aston,  
Bampton, Oxon OX18 2DT

## NOTICE OF ANNUAL GENERAL MEETING

The Annual General Meeting for 2020/21 will take place on **Monday 10 May 2021** by Zoom at **8.00 p.m.**, and will be followed by a talk by Robin Morris on 'The missing twin (does the Sun have one too?)'.

### Agenda

- 1 Apologies for absence
  - 2 Minutes of the previous Abingdon AS AGM (held 12/10/2020)
  - 3 Matters arising
  - 4 Presentation of Committee's report
  - 5 Presentation of Treasurer's report and Adoption of accounts
  - 6 Membership fees for 2021/2022
  - 7 Election of officers
    - i) Chairman ii) Secretary iii) Treasurer iv) Publicity Officer
  - 8 Election of other Committee members (between one and six in number)
  - 9 Any other business
- Chris Holt, Secretary, Abingdon Astronomical Society

## MINUTES OF ABINGDON ASTRONOMICAL SOCIETY ANNUAL GENERAL MEETING ABAS/AGM24

Held: 12 October 2020 by Zoom.

Present: 25 members attended:

Chris Holt (Secretary) David Quick (Treasurer) Ian Baird  
Graham Beint Antony Boorer Mike Brown  
Stuart Cook Steve Creasey Sue Dunn  
Mark Harman Gwyneth Hueter Neil McLaren  
Patrick Moles Robert Peeling Chris Pickford  
Trevor Pitt Andy Pope John Reader  
Cristina Sanchez Ian Smith Andrew Steel  
Simon Tonks Niki Vitoratou Andrew Williams  
John Zarnecki

and visitors

Antonis Manaras Julia Ryan Joseph Thomas

### 1. Apologies for absence

Apologies for absence had been received from Owen Brazell.

### 2. Minutes of the previous meeting

The minutes of the previous AGM, the 23rd AGM of the Abingdon AS held on 13 May 2019, had been circulated at the meeting. These were no corrections.

Andrew Steel proposed that the minutes be accepted, with Ian Baird seconding. The minutes were accepted unanimously.

### 3. Matters arising

There were none.

#### **4. Committee report**

Ian Smith summarised the Committee's report, which had been circulated to members in advance of the meeting along with the minutes and agenda.

The Covid-19 pandemic had led to the April, May and June meetings being cancelled. Once it became clear that our church hall would be unavailable until well into the 2020-2021 season, the committee had planned to start the season by virtual meetings using Zoom. When the hall advised that we can resume, we will resume options for meetings, taking account of government guidelines and our members' views. We will continue to use our paid subscription to Zoom until then.

When the weather permitted, our observing sessions in the 2019-2020 season had been popular. Trevor Pitt and Steve Creasey were thanked for their hard work in organising them. The new Tubney site has been better, with more hardstanding. For the first part of the 2020-2021 season, we are planning online observing sessions with live streaming from members' observatories.

The Society participated again in Stargazing Oxford in January 2020. Even though the weather was unfavourable, the event attracted 1200 visitors, its second highest attendance. All those who took part were thanked, as were those whose postcard astrophotography images were handed out. The ATOM festival Science Market event in March had been cancelled owing to the pandemic.

As Yahoo were stopping their mailing list services, we had set up our own discussion mailing list on our webserver. Chris Holt was thanked for the hard work involved in setting this up.

Our member Chris Jenkins sadly passed away in November 2019. Not long before, he had offered his astronomy equipment to the Society for sale in aid of Society funds. We are grateful to Trevor Pitt, who collected the equipment, and liaised with Chris's family. Trevor then catalogued the equipment and offered it for sale, in some cases after carrying out repair work. Most items had now been sold.

Spacewatch was now being distributed by email, which had enabled an expansion to 14 pages per issue, allowing more observations and images to be included. The committee thanked Gwyneth, Steve and Cristina for their regular contributions. Spacewatch is now distributed at the start of the month, so that it can highlight forthcoming meetings and celestial events. The newsletter can also be downloaded from our website.

The committee also thanked Chris Holt and David Quick for their background work that keeps the society running.

Andrew Steel asked when the Society might return to the hall for meetings. IS replied that the use of the church hall for a pre-school meant that the Society could not currently also meet there. Other halls had been considered but the current limitation of groups to the members of six households prohibited our meetings from restarting.

#### **5. Treasurer's report and Adoption of accounts**

The Treasurer's report formed part of the AGM papers circulated by email before the meeting. Describing the Treasurer's report, David Quick said that the surplus for the year 2019-2020 of £1382.68 was healthy. It would remain so after the payment of a £30 Web hosting invoice. Similarly, the total funds of £4556.31 were also healthy.

David reported that there were currently 64 paid up members, which was about 20 fewer than the previous season. He pointed out, however, that 18 had attended without yet having paid subscriptions. Counting these would increase the number of members to 82, close to the membership of the previous season.

David added that payment of subscriptions by BACS had been introduced and was working well. It had simplified the treasurer's duties, providing that the subscribers' names were included as payment references.

David Quick thanked Keith Barney for auditing the 2019/20 Treasurer's report and asked if there were any questions. There were none.

Trevor Pitt proposed that the Treasurer's report be accepted, with Andrew Steel seconding. The accounts were accepted unanimously.

## **6. Setting of membership fees for 2019/20**

David Quick said that, following discussion within the Committee, the Committee proposed to make the subscription rates for the 2020-2021 season a single flat fee of £10, with no concessions and with no visitor charges. This was because the Society's costs would be lower, with the hall fees replaced by the Zoom subscription and only incidental other costs. He asked for comments.

Tony Boorer said that this was a generous offer by the Society that should not present a barrier to continued membership and should help to maintain member numbers. He asked how the Society would be publicised. Ian Smith said that Facebook and the Society website would be the main forms of publicity. Chris Holt added that Ian had made the process for joining clearer on the website. Since the changes, about six had enquired in the past week and half of these had already joined. Steve Creasey added that the joining process could also be clarified on the Facebook page.

In answer to a query about the cost of the Zoom subscription, Ian Smith said that he believed the Society was paying £14 per month.

Trevor Pitt asked how the Society might spend the funds raised through selling Chris Jenkins' equipment. He asked whether they could pay for speakers that charged for talks. Gwyneth Hueter said that only one of the speakers booked for 2020-2021 was charging for her talk. However, once meetings resumed in the hall, the funds could be used for speaker charges and expenses. Andrew Steel suggested the funds could be used to improve the books in the Society library and for additional projectors and laptops. Ian commented that the current projector was a recent purchase. Regarding book purchases, he suggested these should wait until we know that in person meetings are resuming. Cameras to help with virtual observing could be purchased, he suggested. He added that members were encouraged to make suggestions on how to use the funds.

The Committee's proposal of a flat rate £10 subscription was formally proposed to the meeting by Ian Baird and seconded by Rob Peeling. The Committee proposal was carried unanimously.

## **7. Election of officers**

Three of the four existing officers (Owen Brazell, Chris Holt and David Quick) were all happy to stand for election as officers again. The fourth, Sebastian Linfoot, had indicated he would stand down as Publicity Officer but was happy to remain on the committee. There being no other candidates, the election of the three officers was proposed by Trevor Pitt and seconded by Ian Smith. They were elected unopposed en bloc. The new officers were thus:

Chairman – Owen Brazell, Secretary – Chris Holt, Treasurer – David Quick.

## **8. Election of other Committee members**

Steve Creasey, Cristina Garcia-Pozuelo Sanchez, Gwyneth Hueter, Sebastian Linfoot, John Reader, Ian Smith and Andrew Steel had all agreed to stand for the Committee again. Trevor Pitt proposed that these seven members be elected with Chris Holt seconding. These seven Committee members were elected unanimously.

## 9. Any other business

Trevor Pitt outlined the preparations that had been made for virtual observing sessions. He had discussed them with Steve Creasey and the two had tried a Zoom session. They had found they could share their screens with the Zoom meeting without interfering with the imaging programs they were using. It would be possible for Steve to be moving his telescope to a new target while Trevor was talking to the Zoom meeting and vice versa. Or Owen Brazell could host the Zoom observing session and could introduce the targets. That would spare the telescope operators from being distracted while moving to targets. Simon Tonks said it would be good to have such options, for flexibility. Tony Boer said he would be happy to contribute, as he had suitable imaging equipment. Trevor proposed that we extend the FCN (first clear night) period to be Monday to Thursday, to improve the probability of having clear skies. The first session was planned for 19th to 21st October. Chris Pickford suggested the sessions should be booked for 8 pm to 10 pm.

Gwyneth Hueter asked whether anyone present had particular topics they would like the talks programme to include. If so, she could research suitable speakers. While using Zoom, speaker distance ceased to be a problem, and two of the booked speakers would be delivering their talks from Manchester and Leicester. Andrew Steel asked about talks on astrophotography. Steve Creasey said he would be giving a talk on DSLR astrophotography in December. It would be the second part of his talk on the subject. Trevor Pitt added that aspects of astrophotography would occur in the virtual observing evenings. Andrew also suggested a talk on gravity waves. Trevor Pitt suggested a talk from Wil Tirion, the astrocartographer, who had given a talk to South Downs Planetarium.

Chris Holt extended the Society's thanks to Owen Brazell, our chairman and Spacewatch editor, who was currently at the Kelling Heath Star Party, and to Ian Smith, our webmaster and past chairman, who had stood in for Owen at this AGM.

There was no further business, Ian Smith thanked those present for attending. The AGM concluded at 21:00 to reconvene at 21:10 for the talk from Andrew Steel.

Chris Holt, Secretary, Abingdon Astronomical Society Date of issue: 30 April 2021

## **ANNUAL REPORT OF THE COMMITTEE OF THE ABINGDON ASTRONOMICAL SOCIETY**

This has been one of the most trying years in the society's existence with the COVID-19 pandemic dominating the year and stopping most of the usual functions of the society. Despite this however we have been able to hold most of our regular meetings over Zoom and initiated the virtual observing sessions which have been very successful, despite Steve's internet connection being overloaded every time. He has promised to feed the hamsters more in future. Our thanks to Trevor, Steve, Tony Boer and Mark Harmon as well as Clifford for their participation in these events. It is interesting that we seem to be one of the few societies to have implemented these. Our thanks as well to those who have helped put together the beginners talks. We have changed the format of the beginners meetings slightly for this session to avoid Zoom fatigue by only having two talks. Hosting Zoom talks has proved to be a little more difficult than expected compared to physical meetings but we have managed a complete programme. The usual contribution at the Oxford Stargazing 2021 event this year was made via Zoom and our thanks to Owen, Steve and Trevor for being browbeaten into giving the three talks at this event. The talks were well received and we believe that there were over 5000 participants to the event. There is some talk that there may be a virtual contribution to future Oxford events. The main meetings have also gone well and our thanks to Gwyneth for arranging these meetings. It has perhaps been a tough introduction to her first year as meetings co-ordinator. The numbers at the meetings have been slightly

disappointing as many societies have seen an increase in their attendance when using Zoom but our numbers seem to be down a bit. We are not quite sure why that is. There has been some internal discussion on whether we could have hybrid meetings in the future to allow us to get more remote speakers in but this may well depend on the bandwidth for the wireless connections in the hall. We also made the decision to bring forward the Spacewatch publication dates to the beginning of the month to help advertise the meetings but the size has also increased remarkably thanks to the efforts of the imagers in the group and some issues have gone up to 20 pages. Our thanks again to Steve, Christina and Gwyneth for their regular contributions and Owen for producing it. When we go back to physical meetings there will have to be some discussion over whether we go forward with doing paper copies anymore or just do special editions for when we can go out and do public events again.

We have been told that, assuming everything goes according to plan, we will be able to return to the Church meeting hall after June, so in our case that would be for the September program. The committee would very much like to know how the membership feels about this and would they be happy to return to physical meetings again?

There have been discussions about the website and its suitability in a modern world and we are looking for someone with WordPress experience to look at taking on the site and updating it to a more modern look and feel and perhaps allow people to submit images by themselves. This of course would be from an approved list. The society Facebook pages have been kept up-to-date by Steve, Cristina and some from Owen but they do not seem to bring much in the way of society membership. The aalist has also been quite quiet so far but our thanks to Chris for keeping this going.

Chris and David have also worked hard behind the scenes and in particular the ability now to pay memberships via BACS has helped the society keep funds coming in.

Clear Skies,

THE COMMITTEE.

## NOMINATIONS FOR ELECTIONS TO COMMITTEE

Nominations are sought for the posts of Chairman, Secretary, Treasurer, Publicity Officer and between 1 and 6 other committee members.

Under the Constitution of the Society, the “candidates for election shall be proposed and seconded by ordinary members of the Society and the nomination, including the candidate’s signature, submitted in writing to the Chairman at least four weeks prior to the Annual General Meeting” (para. 10.3.3).

Ordinary members are all those who are not honorary members or affiliated members.

The Constitution goes on to say that, “in the event of there being no candidate for the election of an officer of the Society, or fewer than ten candidates for the election to the Committee, the Chairman may accept nominations given at the meeting” (para. 10.3.4).

Chris Holt, Secretary, Abingdon AS

**Abingdon Astronomical Society Annual Accounts 2020/21**

<b>Income</b>	2018/19	2019/20	<b>2020/21</b>	<b>Expenditure</b>	2018/19	2019/20	<b>2020/21</b>
Subscriptions	1470.00	1295.00	<b>676.00</b>	Hall & Room Hire	527.70	346.60	<b>0.00</b>
Visitors Fees	12.00	4.00	<b>0.00</b>	Speakers Expenses	92.00	332.60	<b>30.00</b>
Astro Calendar Sales	44.80	0.00	<b>0.00</b>	Astro Calendars	49.00	0.00	<b>0.00</b>
Refreshments	127.66	118.75	<b>0.00</b>	Refreshments	23.97	14.98	<b>0.00</b>
Donations	0.00	0.00	<b>0.00</b>	FAS Subscription	28.00	28.00	<b>28.00</b>
Sale of Equipment	0.00	1331.00	<b>195.08</b>	Publicity Expenses	9.98	122.98	<b>0.00</b>
Refund of Hall Hire	0.00	0	<b>54.00</b>	Secretary's Expenses	84.25	105.56	<b>0.00</b>
Interest	<b>6.61</b>	4.74	<b>1.17</b>	SpaceWatch Printing	272.50	229.78	<b>0.00</b>
				Insurance	30.00	30.00	<b>30.00</b>
				Web Hosting (Fasthost)	0.00	0.00	<b>30.00</b>
				Zoom Meetings	0.00	0.00	<b>57.56</b>
				Membership Cards	9.89	16.18	<b>0.00</b>
				Photographs	52.87	0.00	<b>0.00</b>
				Purchase Library Books	0.00	75.00	<b>0.00</b>
				Purchase Repair Eqpt.	0.00	69.13	<b>0.00</b>
					<hr/>	<hr/>	<hr/>
					1180.16	1370.81	<b>175.56</b>
				SURPLUS/DEFICIT	480.91	1382.68	<b>750.69</b>
	<hr/>	<hr/>	<hr/>		<hr/>	<hr/>	<hr/>
	1661.07	2753.49	<b>926.25</b>		1,661.07	2,753.49	<b>926.25</b>

	2018/19	2019/20	<b>2020/21</b>
Total Income	1661.07	2753.49	<b>926.25</b>
Total Expenditure	1180.16	1370.81	<b>175.56</b>
SURPLUS/DEFICIT	480.91	1382.68	<b>750.69</b>

	2018/19	2019/20	<b>2020/21</b>		2018/19	2019/20	<b>2020/21</b>
Balance c/f	3173.63	4556.31	<b>5307.00</b>	Cash in Hand	140.35	43.23	<b>43.23</b>
				Community a/c Bal.	864.22	2609.47	<b>2683.05</b>
				Savings a/c Balance	2574.81	2579.55	<b>2580.72</b>
				Credit not on latest Community a/c statement	0	60	<b>0</b>
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					3579.38	5292.25	<b>5307.00</b>
				Cheques issued but not on latest Bank Statement	405.75	735.94	
					<hr/>	<hr/>	<hr/>
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	3,173.63	4,556.31	<b>5,307.00</b>		3,173.63	4,556.31	<b>5,307.00</b>

Treasurer: David Quick

Reviewed By: Keith Barney