

Newbury Astronomy Society Chair's Report 2019-2020

Well, what a year for Newbury Astronomy Society. It started well and then COVID-19 struck and we had to abandon the programme.

We managed to get to March and then had to stop our meetings as the government's advice was to go into lockdown and the MenCap Centre and Greenham Church Hall were closed.

Despite this, we have started Zoom Meetings and have a full programme, including the summer months, until the end of the year. And if necessary, we can continue into 2021 either face to face or via Zoom.

The main meetings started with a very practical talk by our own Dr David Boyd on spectroscopy and analysing the light from the stars. David took us through the information that can be gained by spectroscopy and what amateurs can achieve. He presented some of the spectroscopy data he had accumulated including measuring the spectra of a new supernova. Dr Hugh Mortimer built on the talk by David Boyd when in October he gave a talk on: The colour of science: hyperspectral imaging for astronomy. Dr Mortimer worked in the development of instrumentation for measuring spectra using satellites. He described instruments and the projects where they are used. His mention of a Fourier Transform Spectrometer was of great interest and I had a discussion with Terry Platt of Starlight Xpress and put the two in contact as the instrument promised good spectra from relatively inexpensive equipment. Colin Stuart gave the November talk on How We Will Live on Mars. He talked about the practical issues that would have to be addressed and how they could be overcome. In December Mark Kidger from the European Space Agency talked about OJ 287, a mysterious black hole. Dr Kidger said this Quasar has been observed by amateurs who saw its brightness changing rapidly. The best theory for explaining what is happening is there are two black holes orbiting each other. These two black holes are getting closer to each other and will eventually merge. A strange pair of objects. In January our members gave talks on the Music of the Spheres. In February Dr Paul Abdul gave a talk on observing Venus. This was a great practical talk and he described the best way to observe Venus and record those observations. This work is now dominated by imaging methods using specialised filters. In Mar Dr Nart Daghestani (RAL Space) talked about Installation & First Light from a 350GHz Heterodyne Receiver at the Mexican Large Millimetre Telescope. This was a fascinating talk on how a very specialised instrument was developed and then installed on a remote observing site and if you look on our web page there is a link to a really interesting video about this instrument. And whilst there, have a look at the excellent summaries of the meetings. Chris Hooker and others have done a great job of summarising the talks and they have proved to be very popular with some having over 500 hits.

And becoming more popular we ran a good programme for beginners meetings. These meetings are more focused on practical astronomy and assisting members who may be new to astronomy. If the weather gods are kind we also take the chance to have an observing session using instruments people may be contemplating buying. In September, a series of projects were shown that were straightforward to make or do and hopefully we inspired some of our members to undertake them. In October we looked at Chinese astronomy that has a well established and very long history in astronomy. The astronomical knowledge they had was extensive and sunspots were well known by them before the invention of the telescope. For November we looked at spectroscopy and explained how it was done and what information it has provided about very remote objects that we have no chance of actually visiting. And for the last talk in 2019, some of our braver members talked about

their historic astrophotography failures. Yes, astrophotography is a real trial and error hobby/passion. We started 2020 with a talk on the Voyager Legacy. This was two spacecraft that changed the public's views on space exploration. The outer planets were visited by two Voyager spacecraft a few years apart. And what turned out to be the final talk we examined the large-scale structure of the universe.

Our outreach programme has continued and we have sustained our reputation for entertaining and informing the public. Tony Hersh's records of the number of events we support has increased with Steve Harris, Peter Bendall, Julie and Chris Hooker helping and Nicky and Richard Fleet have organised and done talks to local schools. I have to admit I still enjoy these events even if I have to clean fingerprints off the optics after these events. I am still keen for us to publicise these events and maybe encourage our members to attend, come along and chat.

None of this would be possible without the help of ALL the committee (and a lot of helpers) but I must add personal thanks to Richard and Nicky, Ann, David and Kath for making the organisation of events so easy. With huge help from Steve Harris who continues to do this with a smile and a friendly word. Chris Hooker for organising the RAL events and the meeting summaries. I would also like to thank Steve K for twitter, Chris Douglas and Mark for the web page and Peter in ensuring we kept to our budget. Also, the key work of Monica and Phoebe who did a great job of keeping us fed and watered. I would also like to thank Tony Hersh and Alan Wyles for providing a positive contribution. And Julie who has joined the committee and been prepared to get involved and help.

The good news was that we managed to get over 100 members of NAS.

And then COVID struck and we lost our meetings, the outreach programme and the BAA event at Winchester.

Despite that, we now have a new programme of meetings that will be done using Zoom. As we had not spent all our budget we will not be asking for any membership fees for the rest of the year. We have a programme for next year and will decide nearer the end of the year whether it can be face to face or via Zoom. We cancelled our Summer visit but kept the Christmas meal booked.

So an interesting (in all senses of the word) year and please do come and join us on Zoom. It is very social and friendly and very safe.

Keep safe and well.

George Sallit

Chair Newbury Astronomy Society.