

Edited by Robert Shanks



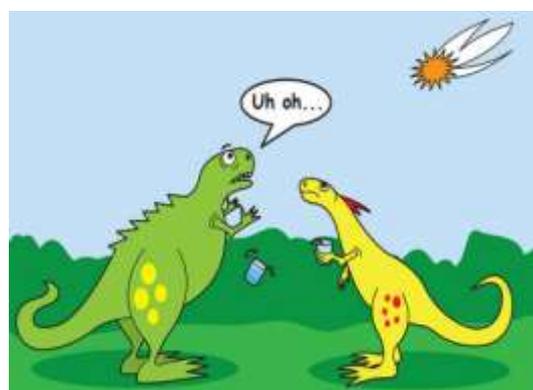
Welcome to the Blackburn Leisure Astronomical Society Newsletter. Please remember that although we are closed to external visitors at present, we are able to take bookings and your observatory is still open for you as the membership in small numbers and socially distanced.



Meeting News!

Although the pandemic has separated us, in some ways it has brought us closer together. Building on previous discussions some years ago, BLAS and the Pretoria Centre in South Africa have had a successful virtual meeting to pave the way for further discussions. As a starting point, it has been agreed that BLAS member Andy Russell will present our Radar findings to the Pretoria group in a lecture about our adventures into Radio Astronomy. Andy's research so far will hopefully answer the questions of why we do it? what can we detect? what do you need to detect it? In return, the Pretoria Group will present their work on Spectroscopy for the amateur at our club meeting in November. This features some novel relatively inexpensive innovations achievable with the use of 3D printing. The Pretoria group have also kindly offered us the use of their Microsoft Teams account on this call and the BLAS members are free to join their meeting. If you would like to attend these sessions please send the editor a note that you are happy for us to pass your email address to them for this purpose. An invite will appear in your email, just follow the instructions. Please note it is slightly different to our Zoom communication and will take some getting used to. The format will be that the first half of their meeting will be concerned with their club matters but we will be invited to present during the second half. We are trying to arrange this for their next club night this Wednesday evening October 28th. If however this cannot be achieved we will aim for the 25th of November. As you are all aware we have shared newsletters with the group since its re-introduction and many of you find their news informative and helpful. The connections don't end there. Some years ago Paul Read gave them a presentation and Doug Sharpe also struck up friendships during working visits. It is hoped that longer term we can continue this relationship with South Africa as we move forward. Thanks to all for enabling this and we hope you enjoy meeting like-minded people south of the equator.

As ever with Astronomy, the more we look the more data is gathered. Recalling an interesting lecture by Paul Money on the subject several years back, Steve O'Dwyer has been keeping an eye on Space Weather this month and has found an interesting update to near-Earth passing asteroids at <https://spaceweather.com/> For those of you unconcerned about the kill shot from space debris causing a mass extinction event, recognise that this data is based on triangulation from moving path observations. In other words we probably won't see the one heading directly towards us or as the saying goes, it's the bullet with your name on it you have to worry about.



Down to more Earthly routine matters, thanks for trimming the weeds at the observatory and washing the main dome Steve (picture in the header).

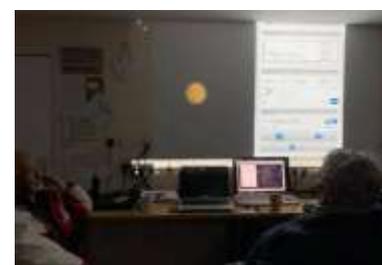
Opposition Mars!



You cannot help but notice how bright and sharp Mars has been in the night sky this month even to the naked eye. This is because Mars is in opposition to us right now and has also presented its full face to us, an opportunity only afforded every 26 months alone. Coupled with the relatively short 39 million mile distance to our closest neighbour at the moment, this has got the Astronomical



community excited. A more detailed explanation of the planetary physics involved and future viewing opportunities can be found [here](#). Several of you have seized the opportunity for some imaging. If you haven't already then have a go before Mars fades again into early December. The photograph above was obtained with approximately 25% of frames from a 30 second AVI video file but clearly shows some detail and the bright spot of the southern polar ice cap. The image on the right shows the live-feed image of Mars projected onto the wall of the observatory, direct from the 14-inch telescope on October 20th.



Thanks to Julian Robinson this month for a much needed tidy up to the BLAS website front pages. Please continue to submit your pictures, observations and stories to this page. If any of you are struggling with the upload or have concerns please get in touch. This is your gallery for membership only and is strictly vetted from time to time. For our more public pages members can also join the conversation on our [Brough Astronomy Facebook](#) page.



I am reminded this month of a must see 2016 film entitled Hidden figures loosely based on the 2016 non-fiction book of the same name by Margot Lee Shetterly about African American female mathematicians who worked at the National Aeronautics and Space Administration (NASA) during the Space

Race. The film portrays Katherine Johnson, a mathematician who calculated flight trajectories for Project Mercury and other missions which became vital to John Glen's flight in Friendship 7.