

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. Should you wish to complete some observations please ask. With planning and forethought the telescopes can be used for small sessions...



## Meeting News!

After last month's small meeting Monday 27<sup>th</sup> July and further careful consideration, the committee have elected to try an open air meeting once again. This month's meeting on **Monday 24<sup>th</sup> August** will therefore take place again outside the observatory. Depending on visitor numbers we

must limit people allowed inside the observatory at any one time. Seating will be arranged outside to be socially distant throughout the presentations, refreshments will be provided and if there is a suitable viewing opportunity, we will allow one observer and one operator in the main dome at any one time. We encourage you to wear face covering which will be available at the club if you do not have one. Hand sanitiser will be provided. Please observe 2m (6ft) social distancing and park your car in the main club car park as the field is roped off at present. This is likely to be the last of the summer openings and we will return to Zoom hosted monthly meetings and general Friday evening chats until further notice. We all understand the fear this pandemic has caused and the very real threat that remains and the committee respect every decision for attendance based on everyone's personal situation. Last month's meeting was cold and windy but discussion centred around "how do we make this work for everyone in the current climate?". As we go forward, please feel free to put forward any suggestions you have. It is incumbent upon this newsletter and our communication to you, to continue as best we can in these circumstances so please bear with us and continue to submit your observations despite how insignificant you may think they are. We also recognise that some members still struggle with the zoom and technology and this is a hurdle we need to help each other tackle. On a positive note we can report that the Observatory is still in one piece and despite a few weeds, it's operational readiness remains. If anyone has a strimmer please feel free to bring to the meeting.

## Return of the Perseids

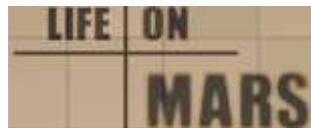
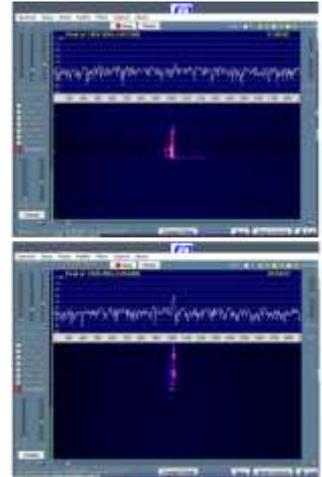
This time last year saw BLAS's first venture into Radar Astronomy (see edition 15) and it was decided to seize the opportunity again this year to gather more data around the Perseid meteor shower for comparison. This involves utilising a radio receiver to gather radio reflections from the ionised trails left behind when meteors enter our atmosphere in front of French Graves Radar system. This year a

more permanent and secure aerial installation between the domes was trialled and after initial setup the equipment was left recording overnight and evening visits ensued for download of data. Over 3 days from 8PM on Tues 11<sup>th</sup> August through the peaks of the meteor shower into Weds 12<sup>th</sup> Thurs 13<sup>th</sup> of August, a total some 40Gb of data was collected! It is early days in the evaluation of this data but as can be seen on page 2, there are several pings of complex data lasting around 20 seconds or so that are even more spectacular than last year. The observations quickly revealed that contrary to normal expectation, the peaks of the shower actually occurred in morning hours leading up to 7AM when most visible observations would be difficult, proving beyond doubt that Astronomy is possible through cloud and daylight.



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Despite the stream of external organisations that would normally visit us being locked down themselves at present, our 2020 investment plans to attract funding continue to evolve. For now we are still using sensitive amateur radio equipment, but the proposal will replace this for much cheaper solution. One exciting area that has come out of the proposals and success of the meteor observations, is a longer term goal to place equipment at the observatory to automatically log the meteors passing through the Graves Radar system and provide the membership and interested external organisations with this data over the internet. A shortlist of equipment to enable this task is evolving and will be placed on the website soon enabling external organisations to follow suit and gather more data. For now mosquito repellent is necessary for summer evenings when gathering data!



This month marks the 40<sup>th</sup> anniversary of the end of Viking 1 mission to Mars shown left. Launched in 1975, Viking 1 became the first mission to land a spacecraft safely on the surface of Mars, return images of the surface and look for signs of life. Closely followed by Viking 2, both [Vikings](#) exceeded their design life and heralded a new era in Martian exploration that continues today. Launched at the end of July 2020 [Perseverance](#) shown right, will continue the quest for life on the red planet.



## Goodbye Comet Neowise!



As reported in newsletter 22, we were all stunned by the spectacular views of [Comet Neowise](#) which can be seen to the North in the late evening early morning skys during July and early August. Several of you sent your pictures in last month including some spectacular images which show the very difficult to see twin tail separation of the particle and ion trails as she makes her way around our Sun. Thank you for your contributions and please upload them to the website or contact the webmaster if you are unable to do so. We finish with Brian Davies' picture from Beverley Westwood. Members of the public also contributed some spectacular images to our [Facebook page](#). Comet Neowise will return to our sky's in 7000 years!