



Newsletter October 2020

Next Meeting: **ZOOM Meeting 8pm Monday October 26th**

The meeting details are as follows:

Topic: Lyn Smith, Director of the BAA Solar Section - 'The Solar Cycle'
Time: Oct 26, 2020 08:00 PM London

Join Zoom Meeting

<https://us02web.zoom.us/j/87023110708?pwd=YURpc3RXN0hnd2Z5bCsyczZseXdXQT09>

Meeting ID: 870 2311 0708

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President's Word

Wishing you all a warm welcome back after an unscheduled short break!

The astronomy season has started in earnest with some interesting objects viewable in our night sky, including Aurora, Planetary conjunctions, comets, meteor showers and many others viewable when the sky is clear.

I finally managed to collect my telescope from storage and set it up in my conservatory to view the above, only to be confronted by a GPS fault not allowing me to pick the correct date for viewing. This had me scratching my head, as no matter how hard I tried, the date would jump back 14 years and consequently the star map wouldn't match reality.

It turns out that, about a year ago, there was a kind of epoch for GPS units that wasn't catered for by my GPS manufacturer. Fortunately for me, a firmware update from Celestron was provided for this sometime ago, but as I hadn't used my scope for nearly 18 months, I had overlooked this update. So after downloading and flashing my handset, and keeping fingers and legs crossed, all was well again, and the planets and stars on the star map matched reality. What is a bit of a worry, will future updates continue to allow me to carry on using my CPC925SCT? I do hope Celestron continue to provide them!

On another note, a few weeks back I saw an article on the QI webpage, regarding mysterious radio bursts detected by Parkes Radio Observatory in Australia - The very same radio telescope featured in the movie, "The Dish" - over a number of decades, that had been unaccounted for.

It was reported that an astronomer at Parkes, Dr. Emily Petroff of Amsterdam University had realised that the signals recorded were due to astronomers opening the microwave door when it was still cooking their food!

I commented that I thought the whole thing sounded very unlikely and was probably an apocryphal tale but after only a few moments I received a reply from Dr.Petroff herself, who told me that the story was indeed true and she would send me her paper on the bursts know as Perytons which are terrestrial based transient energy signals, able to mimic extra-galactic Fast Radio Bursts quite well!

Apparently the microwave oven hadn't been updated in several decades and the signals lasting only 5 milliseconds appeared to be the result of the use of old- fashioned magnetrons used in microwave ovens of the past.

Dr. Petroff's paper can be found here: <https://arxiv.org/pdf/1504.02165.pdf>

I'm sure you'll find it both entertaining and interesting.

I look forward to seeing you all at the forthcoming Zoom meeting on Monday 26th October where we will be entertained by Lyn Smith who is the Director of Solar Section of the British Astronomical Association(BAA).

For now though, Clear Skies!

Roger Harman



October/November Observing

General

Autumn is in full swing with Pegasus dominating the southern sky. Sinking to the horizon are constellations like Aquila, Hercules and Lyra.

Close to Pegasus is Triangulum and between them they host two of our local group of galaxies, M31 and M33 respectively, which are now easy targets even for small telescopes. Other constellations assuming prominence include, Cassiopeia, the vain queen looking in her mirror shining brightly overhead, Taurus with the Hyades and Pleiades, and Auriga with its many open clusters. And lastly, in the east, Orion begins to slip onto the scene, waiting to usher in the winter sky.

Planets

Mercury – is in the morning sky and will reach its maximum elongation from the sun on November the 10th, where it will be in line with Venus, if low to the horizon.

Venus – shines bright in the morning sky as it moves to its gibbous phase. Its disk will continue to shrink from about 15 seconds of arc at the beginning of October to about 11 seconds by the end of November.

Mars – was closest to earth on the 6th of October, reaching 22.6 seconds of arc, with it being in opposition on the 13th. Mars which is in Pisces, will be travelling retrograde, or moving westward in the sky, until mid-November, afterwards it will return to moving east. By the end of November it will shrink to about 14 seconds of arc. The south polar cap which was so visible in August/September has continued to shrink in the Martian summer and may not be visible by the end of November.

Jupiter and Saturn – Both planets are low in the west before sunset, where they remain for the period. Observing is difficult due to how low they are in the sky. They will continue to move closer together throughout this period.

Uranus – will be in opposition in Aries on the 31st of October and is well placed for observation, it will be about mag 5.9 and is 3.8 seconds of arc in diameter, so it should be visible in a relatively modest scope.

Neptune – reached opposition in Aquarius on 11 September, and is also well placed to see, but at mag 7.8 and being only 2.3 seconds of arc across, it may be difficult to distinguish from stars without a fair sized telescope.

Meteors

There are several showers over the months of October/November, the Orionids have just passed peaking on the 22nd of October. The Southern Taurids peak on November the 5th, they tend to be slow but bright, but a gibbous moon will make viewing difficult. The Northern Taurids peak on the 12th of November, a waning crescent moon will prove less of a problem. Lastly, the Leonid meteor shower peaks around 18th of November, it tends to produce brilliant displays every 33 years, it is 21 one since the last one in 1999, so only 12 more years to wait for the next one! In general, the meteors tend to move fast and can produce prominent green trails.

Comets

There are no bright comets in the sky at the moment.

ISS

Visible passes of the International Space Station can be seen regularly in the morning until the 8th of November, then returning in the evening on 22nd of November for the duration of the month. Consult <https://www.heavens-above.com> for specific times and locations.



Aurora

Sunspot cycle 25 has begun and along with the hope of seeing some Aurora. To date, there are been some sightings, but as the cycle picks up surely more aurora will be seen. Stay tuned.

Member Images

Marc Charron

The big news in the summer was the comet C/2020 F3 Neowise which put on the best show for the northern hemisphere since Hale-Bopp in 1997. Though not nearly as great comet, it did attain naked eye visibility and was easy to see in binoculars throughout most of July, sadly fading as it went into August.

10 July – Comet with Noctilucent Clouds (135mm lens)



10 July through telescope (70mm triplet)



F3 Newowise 22 July (70mm triplet), second ion trail more visible.



Mars TMB 130/1200 at 12,000mm. the slightly bright patch near the bottom is Olympus Mons.



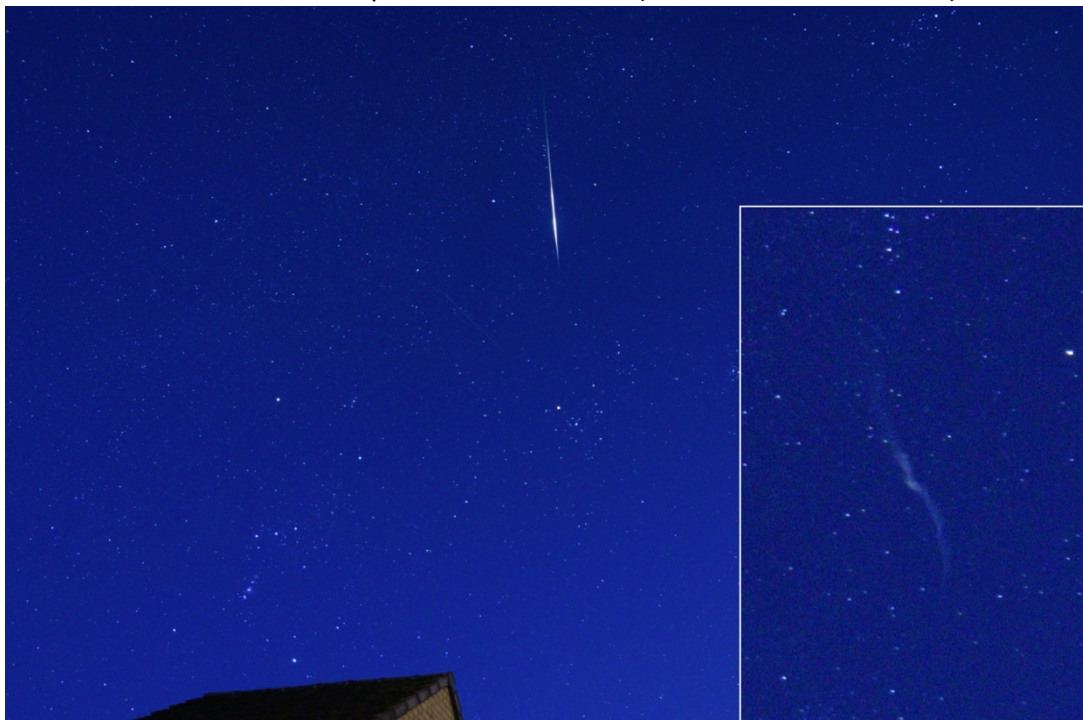
Crescent Moon 13 October (70mm triplet at f12, 840mm focal length)



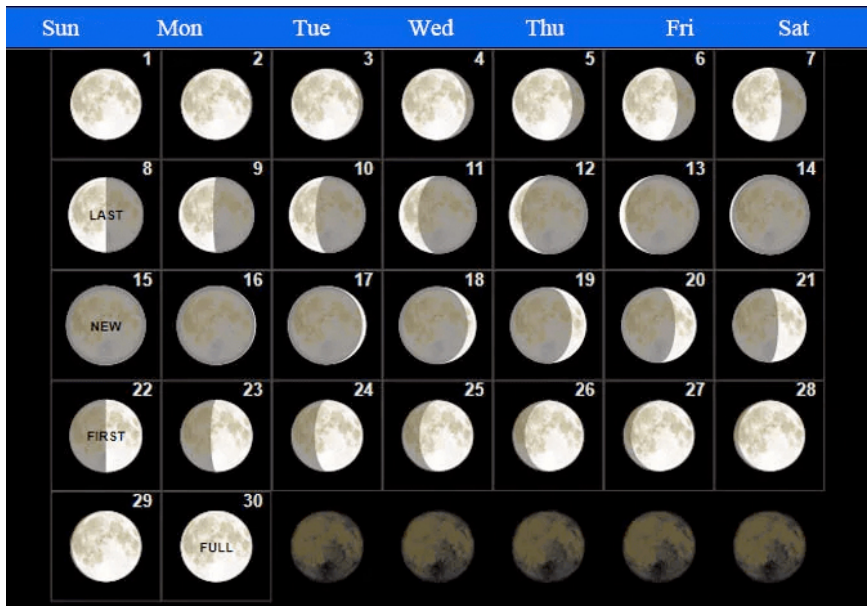
Two Summer Planetaries – not to scale, M27 and M57 (TMB 130/1200)



Fireball 15 Oct with persistent smoke trail (lasted about five minutes)



Moon Phases November 2020



November Sky Chart

