EAST LINCS ASTRONOMY CLUB

Monthly Observation sheet May 2025

This month we are concentrating on some simple observing, steering away from our usual deep sky summary.

Noctilucent Clouds

As we enter May we are approaching Noctilucent Cloud season. Noctilucent Clouds are clouds of icy dust that form at very high altitude on the edge of space, around 76–85km high, when temperatures and pressures in the upper atmosphere are just right. Also known as NLCs, Noctilucent Clouds are not visible all the time; there is a season between the end of May and the start of August every year. Because they are so high up, Noctilucent clouds are illuminated by the Sun long after it has set for us at ground level, and we see them as blue-white swirls, curls and tendrils shining in the sky. That's what their name means – 'nocti' (night) 'lucent' (shining). But NLCs only form when every thing comes together. What's more, conditions only occur during the summer months and even then not every night.

Observing Noctilucent clouds is easy and, best of all, completely free. You don't need any expensive telescopes, binoculars or cameras. Just a pair of eyes will be fine. Having said that, a pair of binoculars will allow you to see fascinating detail and structure within a Noctilucent Clouds display that is invisible to the naked eye. You don't need to be under a pitch black sky to see them. A good display will be so bright it will be visible from your back garden or bedroom window, as long as you're facing north. Noctilucent clouds typically appear 90 to 120 minutes after sunset or before sunrise, though can appear form the 30 minute mark.

Solar Maximum

WARNING, DO NOT ATTEMPT TO OBSERVE THE SUN WITHOUT THE CORRECT EQUIPMENT AND FILTERS

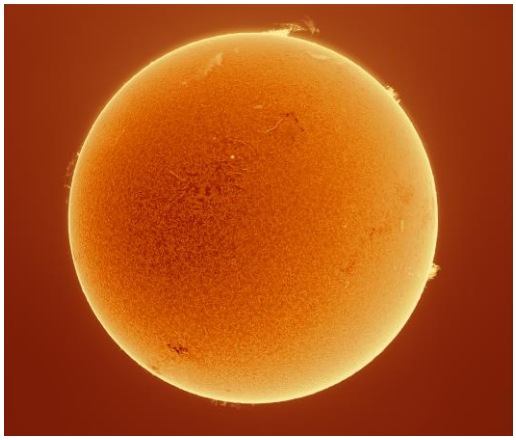
What is Solar Maximum?

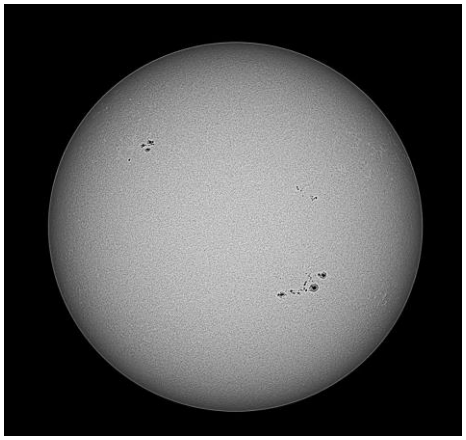
The Solar cycle is the natural cycle of the Sun as it transitions between low and high activity. During the most active part of the cycle, known as Solar maximum, the Sun can unleash immense explosions of light, energy and Solar radiation, all of which create conditions known as space weather, Aurora for example.

The Sun can be observed visually through a specialist HA telescope or a standard telescope in white light using a solar filter or solar wedge.

Late Spring/Early Summer are good times to observe the sun (safely) as the days are so much longer and the Sun is higher in the sky.

Below are examples of what you can see. On the left an image taken with a HA scope showing filaments and prominences. On the right an image taken in white light showing granulation and Sunspots.





However you decide to observe the Sun, make sure you do it safely and with the correct equipment.

Observation notes.....
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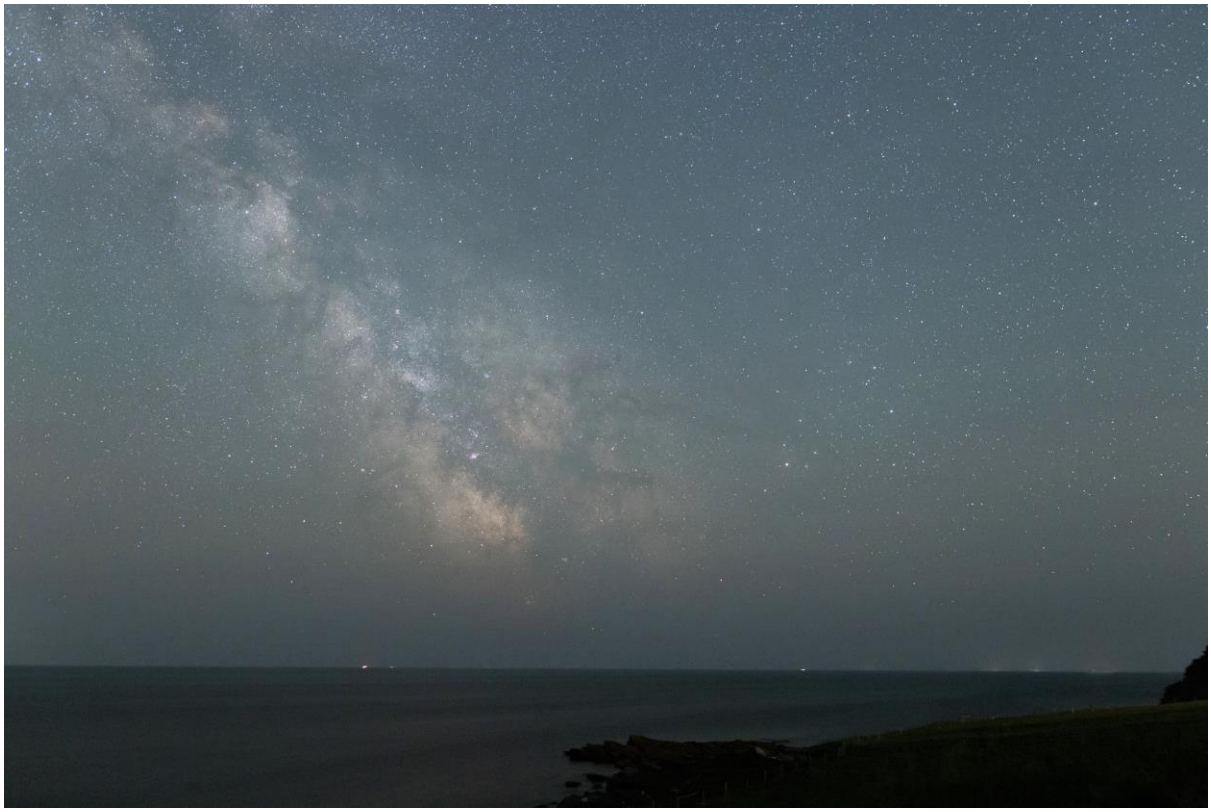
The Spring Milky Way

In spring, the Milky Way is best observed in the early morning hours from the UK. The galactic core, the most star-dense part of our galaxy, is visible in the southern sky. The best viewing time is typically around 1:00 am until dawn. To enhance your viewing experience, try to find a location away from artificial light pollution, such as a dark-sky site.

Whilst there are numerous objects embedded within the Milky Way to be observed through telescopes, sweeping the area with binoculars is quite satisfying, allowing viewing of dense star fields, large nebula and open clusters.



Observation notes.....
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