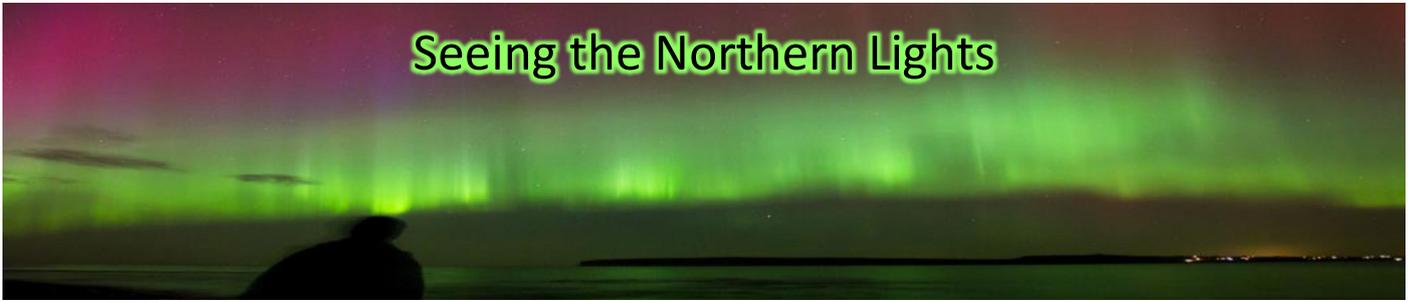


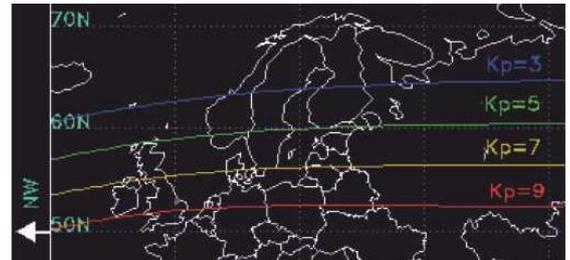
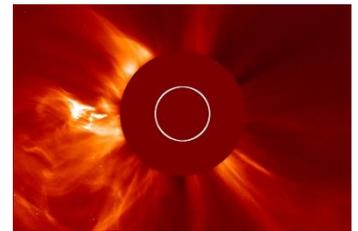
Seeing the Northern Lights



The aurora borealis are produced when material thrown out by the Sun interacts favourably with the Earth's magnetic field, causing light to be emitted from energised gas molecules in the upper atmosphere around the poles. It is a wonderful sight to see and during periods of high solar activity (for a few years approx. every ~11 years) it can be seen from northern Scotland.

Below is a basic 3 step guide for increasing your chances of catching this mesmerising natural light show.....

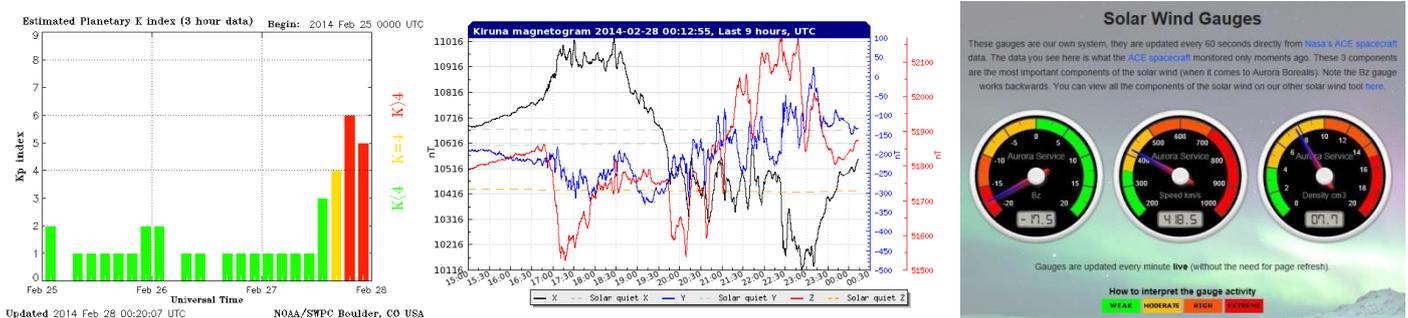
1. Watch for activity on the surface of the Sun that propels the aurora generating material in the direction of the Earth. This material will take approx. 2-4 days to reach us.
2. Monitor the latest aurora forecasts and local weather forecasts to see when there is a reasonable chance of seeing the aurora. Aurora forecasts use a simple index (the Kp-index) to indicate how far south the aurora will be seen. At a Kp-index of 3 the aurora will be low along the northern horizon from the northern parts of the UK mainland. Larger Kp values see it higher in the sky from the highlands of Scotland and potentially visible from more southerly latitudes.
3. When auroral activity is expected check the real time online data (see below) and if conditions look favourable find a dark spot with a low northern horizon to enjoy the show.



Here is a selection of websites that provide useful information including real-time data:

www.spaceweather.com www.solarham.com www.spaceweatherlive.com/en www.aurora-service.eu

These websites display the data for key parameters that affect the likelihood of aurora being visible eg



Solar wind & magnetometer readings and Kp-index estimates are good indicators of whether aurora is or will soon be visible. The websites listed contain some guidance on how to interpret the data and many also colour code the info to help identify the conditions most likely to lead to aurora being visible.

Remember that you need clear dark skies and preferably no bright moonlight to see the northern lights at their best.

More detailed information and additional advice can be found on the Caithness Astronomy Group website – www.spanglefish.com/caithnessastronomygroup/index.asp