

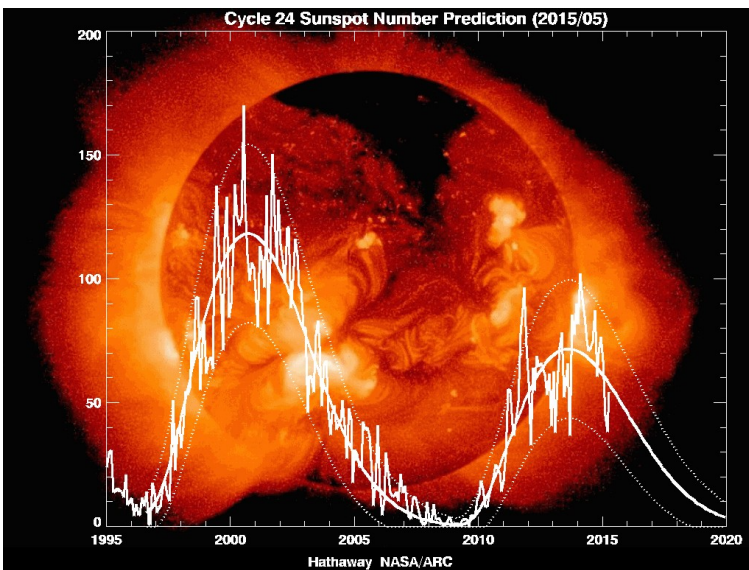


# Galloway Forest Astronomical Society

## Newsletter #11, June 2015: Upcoming meetings

### Sunspot Hunt 20<sup>th</sup> June 2015

We'll be back in the car park of the Belted Galloway Visitor Centre, Riverside Road, Newton Stewart on Saturday June 20<sup>th</sup> from 11:00 am to 1:00 pm, trying to observe and image sunspots and solar flares using the society's coronado telescope and another telescope fitted with a solar filter. Members and friends are most welcome to join in – we will have a number of solar specs available to allow safe observation of the sun by everybody.



### Sunspot numbers

This picture, from NASA's solar science pages at <http://solarscience.msfc.nasa.gov/SunspotCycle.shtml>

... shows where we are in the solar activity cycle just now – not at a maximum, but fairly active nevertheless. We can estimate the sunspot activity by counting the number of sunspot groups and then the number of individual sunspots. The "sunspot number" is given by the sum of the number of individual sunspots and ten times the number of groups. On the 20<sup>th</sup> of June we can expect a sunspot number somewhere between 10 and 50.

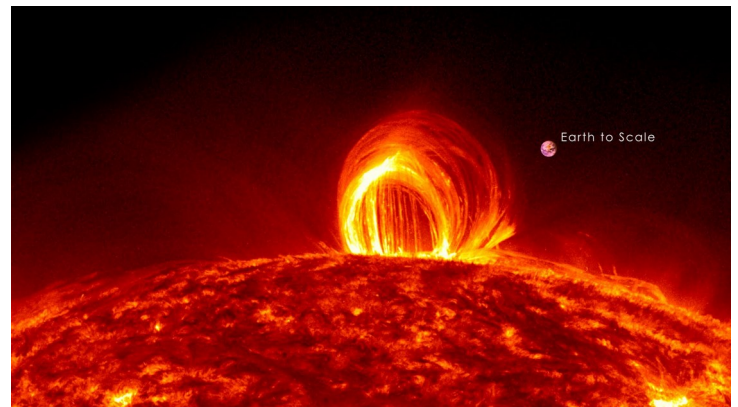
Sunspots were first observed by Galileo in 1610 and their numbers increase and decrease over a roughly 11 year cycle. NASA refers to our current cycle as "Cycle 24".

### Solar Flares

This spectacular image is from a NASA time-lapse video of a solar flare that happened on July 19<sup>th</sup> 2012. You can see the video on YouTube at

<https://www.youtube.com/watch?v=HFT7ATLQx8>

This flare had it all - a moderately powerful solar flare exploded on the sun's lower right hand limb, sending out light and radiation. Next came a coronal mass ejection and then the dazzling magnetic display shown in this picture, known as "coronal rain".



### Late-night meet in September

#### Total Lunar Eclipse September 28<sup>th</sup> 2:00 AM

Given suitable weather, we plan to time-lapse record the total lunar eclipse on Monday/Tuesday 27/28th September. See

<http://www.timeanddate.com/eclipse/in/uk/belfast>

... for the details on timing – total eclipse starts at 02:06, moon is completely in the umbra by 03:11, starts to emerge at 04:22 and eclipse ends at 05:17. Full details of where and when we'll be meeting will be posted in August.