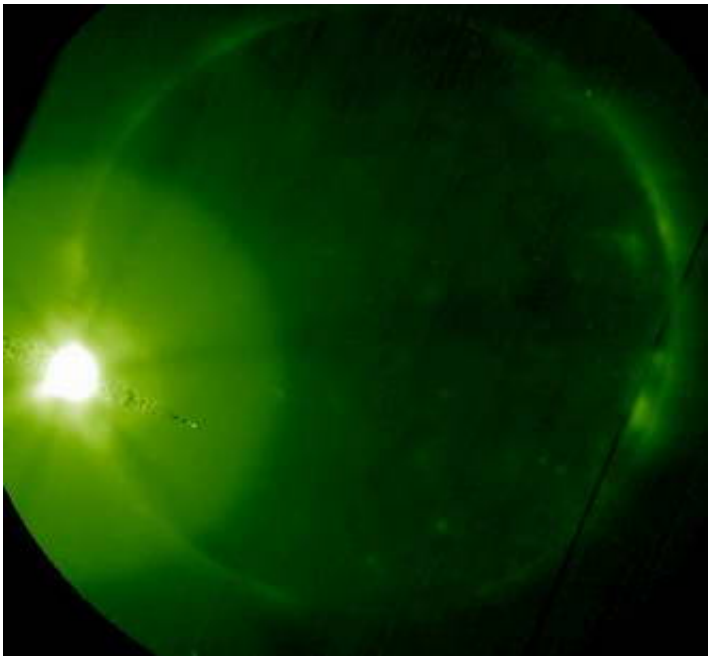
Huge Solar Flare Spotted

September 8 2005



Scientists are currently tracking a very large flare that occurred on the Sun around 1:40 pm EDT (17:40 UT). The current estimate of the size of the explosion is X-17; that would place the flare as the fifth largest ever observed.

Image: Wednesday's solar flare is visible on the left side of this solar image taken by the Earth-orbiting GOES Solar X-Ray Imager (SXI). Credit: NOAA.

While the blast was not aimed at Earth, the event created a complete blackout of high frequency communications in North and South America. According to the NOAA Space Environment Center, communications used by emergency services along the Gulf Coast may have experienced problems due to this flare. Low frequency navigation systems may also have experienced a period of significant degradation. Further, they report that agencies impacted by space weather storms may experience disruptions over the next two weeks. These include spacecraft operators, electric power systems, high frequency communications, and low-frequency navigations systems.

The source of the explosion is probably the same sunspot group that erupted in mid-August. Over the past two weeks, this active region produced a series of significant solar eruptions as it made its way around the back side of the Sun (facing away from Earth). More eruptions are expected in the coming days as it rotates back into view.

Solar flares and coronal mass ejections (CMEs) -- associated giant clouds of plasma in space -- are the largest explosions in the solar system and can pack the force of a billion megaton nuclear bombs. They are caused by the buildup and sudden release of magnetic stress in the solar atmosphere above the giant magnetic poles we see as sunspots.

The NASA/ESA SOlar and Heliospheric Observatory (SOHO), missed the event due to routine orbit maneuvers and instrument maintenance. Its coronagraphs will be back in operation Friday morning.

Source: NASA