



# Newsletter

**“Meteors, and the 2002  
Leonid Storms?”  
by  
John McFarland**

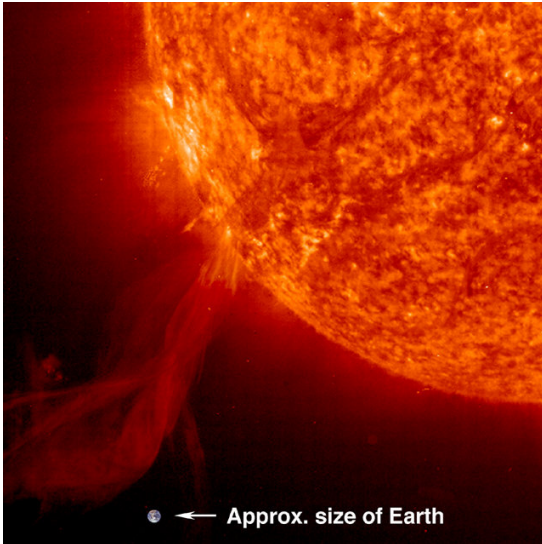
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## ***Sun still very active!***

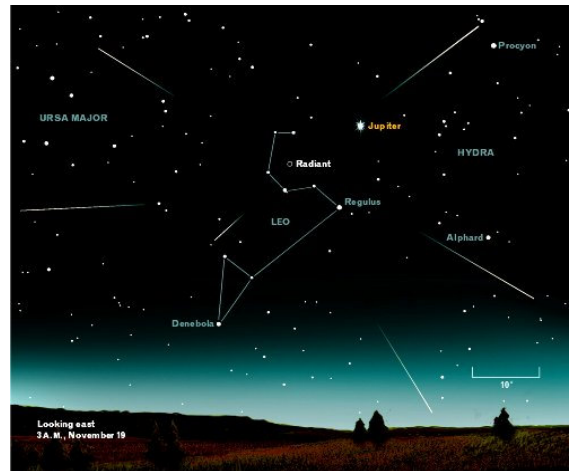


*As the image above shows the sun is still very active even though we are now well past the Solar Maximum. This image was taken by SOHO on the 25th. of October and shows a great Coronal Mass Ejection (CME) shooting out from the south-east limb. It only shows part of the solar disk, and notice the approximate size of the Earth for comparison at the bottom. Unfortunately for us, most of this material missed the Earth altogether so no auroral activity was visible. However, do keep an eye to the north every clear night, you never know.*

### **Watch for the Leonids!**

*November is the month of the Leonid Meteor Shower, and this year we could be fortunate in seeing probably the last of the current ‘storms’ as predicted by Dr David Asher of Armagh Observatory and Robert McNaught of the Siding Spring Observatory. They have predicted that we will have not one but two*

*storms on the morning of November 19th. The first one will occur at 04.00UT. and will be visible from the UK and Ireland. The second will be at 05.30UT. and visible from all of the United States. During the European storm up to 2000 meteors per hour may be seen for an hour or so either side of the maximum. However, the moon will be nearly full making it difficult to see the fainter members of the*



*shower. Below is a map showing the Radiant of the Leonids.*

### **Upcoming Meetings.**

*The next in the series of Armagh Observatory Public Lectures is the “2002 Robinson Lecture” which takes place in The Studio Theatre, The Market Place in Armagh on Friday November 22nd at 7.30pm. The speaker is Professor Carl Murray of Queen Mary College, University of London, and the subject of his lecture is: “ In Search of Our Origins: The Cassini/Huygens Mission to Saturn” which will review the Cassini mission which will arrive at Saturn in July 2004. The lecture is free but by ticket only available from the*

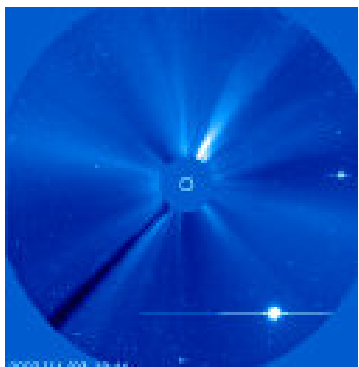
Observatory, contact Aileen, 028 37522928 or



*ambn@star.arm.ac.uk* This lecture is held every two years in honour of Richard Robinson, Baron Rokeby, and Primate of Ireland who founded Armagh Observatory in 1790.

Archbishop Robinson.

Our next meeting will be here in the school on Monday December 2nd at 8pm when we have a real treat in store! The guest speaker on this occasion will be Dr David Asher of the Armagh Observatory, and co-predictor of the Leonid Meteor Storms. The subject of his talk is “Surveying the Skies for Hazardous Asteroids”, and as David has discovered quite a few of his own, this should



be a very interesting lecture, so do come and hear him.

### The Planets in November.

Mercury is at superior conjunction on November 14th and therefore on the other side of the sun from us and will not be observable this month.

Venus is visible in the morning sky and becomes well placed before dawn. It starts the month as a very fine crescent and relatively close to the sun, it will be difficult but is worth finding as the crescent often shows more than 180 degrees. With the planet so close to the sun be very careful not to let the sun stray into the field of view. By mid-month it is more than 20 degrees away. Mars is getting higher in the morning sky, but is very disappointing. Even by month's end it is less than 20 degrees up by the start of twilight. It is faint, at 2nd magnitude, and distant, and its diameter appears similar to that of Uranus.

Jupiter rises before midnight and is well placed in the morning sky. It is now moving through Cancer, and by month's end will be in Leo. Any small telescope will show the numerous belts and spots in the cloud layer, as well as the four 'Galilean' Moons. Also visible in the southern equatorial belt is the Great Red Spot which at present is only a very pale red. A lot of fine detail can be seen with larger telescopes and good seeing.

Saturn rises shortly after nightfall and by midnight is high up in the east on the borders between Orion and Taurus, moving into the later by mid month. The rings are spectacular, being inclined at 26 degrees to us, this makes it easy to see both the Cassini and Encke divisions, but a larger telescope will probably be needed to see the later. A good exercise is to try and see how many moons of Saturn you can see at one time. With my 8½ inch Dobsonian the most I have seen is five, but you do need reasonable seeing. Thirty one

*satellites have now been found orbiting Saturn, of these, seven can be picked up in a 20cm telescope.*

*Uranus and Neptune are still to be found in Capricornus. Uranus lies less than a degree to the right of Mu ( $\mu$ ) while Neptune lies a similar distance to the left of Upsilon ( $\upsilon$ ). Pluto is now lost in twilight and will not be observable again until next year.*

*For those observers with large telescopes, they might like to have a go for comet C/2001 RX14 (LINEAR) which is predicted at about 11th magnitude and best seen in the early morning as it moves between the feet of Ursa Major. As it is so far away, however, it will appear as nothing more than a smudge.*

*Probably your last chance this autumn to try for the illusive Zodiacal Light will be the moonless period between November 3rd and 17th. Start looking from about 2 hours before sunrise, but you will need a totally dark sky to see it, if you do, try to photograph it, and send in your results to the webmaster.*