

SPACEWATCH

the newsletter of the Abingdon Astronomical Society

November 2001

“Meteors”

by George Spalding,

Rutherford Appleton Laboratory.

This month we have the notoriously unpredictable Leonid meteor shower. Once every 33 years this shower gives one of the most spectacular shows on Earth with often several meteors a second. This usually only last about an hour or two and you have to be in the right place at the right time. Unfortunately, no one seems to be able to agree on where that place or time is! Three years ago a great shower was visible from the Canary Islands, while Britain languished in total cloud cover. However, several different theories have predicted follow-up showers for the previous two years, but nothing spectacular has been seen.

Tonight, George Spalding, from the Rutherford Appleton Laboratory, and formerly director of the British Astronomical Association's meteor section, comes to speak to us about meteors. I am looking forward to meeting George, who was a particular inspiration to my early astronomical observing.

The Night Sky this Month

The planets

Mercury and Venus are still fairly close together although they are rising only a short while before it gets very light. You will need to look before the third week of November because after that Mercury will be gone. The morning of November 14th should provide us with a grand spectacle because Mercury, Venus, and the crescent Moon are all very close together.

As it seems most (if not all) of us missed the November occultation of Saturn, we will have to hope it's clear on the morning of December 1st. At 02.25 UT the Moon passes in front of Saturn, and the planet reappears at 3.34 UT. As in November, the Moon is full, but will be high in the south west this time.

Comet

We have a comet to look at! Comet C/2000 WM1 Linear will be passing through Perseus, Aries, and Cetus through November and December. It is predicted to rise from magnitude 7, to about 4.5, so will be easily visible in binoculars, and maybe even with the unaided eye from a dark site. You should try to see it during the first three weeks of November, before the bright Moon arrives. Once the Moon is out of the way, although the comet will be brighter, it will be moving rapidly south. If you come to our November observing evening at Bury Down we will be able to show you the comet hopefully.

Positions of the comet for the next few days are:

<u>Date</u>	<u>R.A.</u>	<u>Dec.</u>
Nov 12	3h 50m	+44.2 deg.
Nov 14	3h 39m	+42.5 deg.
Nov 16	3h 28m	+40.5 deg.

Meteors

Of course, it's that time of the year again, and we have to look out for the Leonid meteors. Officially, the maximum is at 14 hours on November 17th. However, there are now several (differing) predictions about what is going to happen. As a result, we've got to stay up on the night of the 17th/18th AND the night of 18th/19th now. Most of the predictions say from England we will miss the main show, but there should still be enough to see, and predictions are often wrong. The only way to see what's happening is to go out and look. This could well be our last chance to see a major Leonid display. Next year is also predicted to be very good but on the night of the maximum the Moon is full and will probably ruin everything. The following years, the Leonids are expected to return to a mediocre shower again.

Aurorae

The Sun, although officially past the maximum in its sunspot cycle is still very active. Very strong aurorae were seen over North America and New Zealand on 5th November, so keep an eye open, especially just before you go to bed.

Moon Phases:

Full: 1st; Last Quarter: 8th; New: 15th; First Qtr: 22nd; Full Again 30th.

The second full Moon in a calendar month is known as a Blue Moon, so get ready to expect all those rare occurrences which only happen “once in a blue moon”.

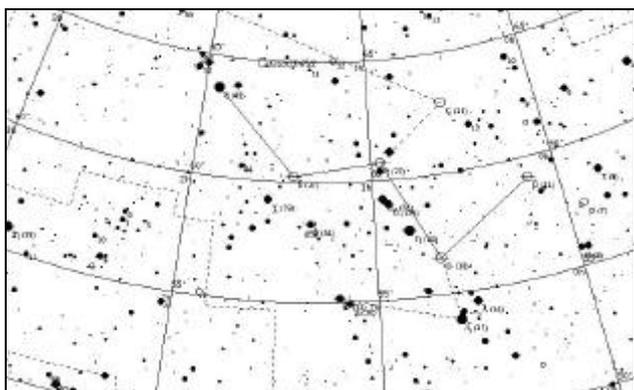
This month's Deep Sky Object

By Paul Warren

This month's deep sky object is NGC 457. “What? Not another challenging offering surely?” Relax folks, this is one of the easy objects that Charles Messier missed. In fact, this cluster of stars is the brightest cluster in Cassiopeia.

NGC 457 is an open cluster in Cassiopeia, and is often referred to as the Owl cluster or the E.T. cluster. A look through any telescope reveals how it earned these two nicknames.

NGC 457 is easy to find. Locate δ Cas in your finderscope, then drop south by a couple of degrees or so and you will run into ϕ Cas, which is one of the eyes of the Owl / E.T.



The cluster is arranged in distinct lines and curves, outlining the form of an owl (or a spindly E.T.). ϕ and HD 7902 form the two eyes. A rectangular clump of fainter stars traces a body and scattered curving rows of fainter stars outline the owl's wings.

The cluster is believed to be about 9000 light years away, and is thought to be a young cluster. The two brightest stars of the cluster form the eyes of the owl / E. T., and it is not known if these stars are true cluster members or foreground stars. If ϕ is a true cluster member, then this would make it one of the most luminous stars known.

Binoculars show the cluster as a fuzzy patch of light, and a 3 inch refractor will resolve the cluster into a couple of dozen stars. An 8-inch scope will reveal several dozen stars. I find that there are some nice colours in this cluster, and it is nearly a spooky effect to see an owl staring at you from the depths of space!

NOTICES

There is an addition to our published programme: on May 13th 2002, there will be a talk by Peter Moreton and Bob Neville (from Rockingham Instruments) titled 'A High Performance CCD Camera'. The AGM will follow after the talk.

SOCIETY E-MAILING LIST

The society's e-mailing list is used to publicise “first-clear-night” observing evenings and for alerting members to hot news on objects to observe.

To subscribe: send an email to abiastro-subscribe@topica.com.

You will then receive all e-mails sent to the list.

To post e-mails on the list: send an email to abiastro@topica.com.

To unsubscribe: send an email to abiastro-unsubscribe@topica.com.

WEB SITES

Don't forget our web site:- <http://www.abingdonastro.org.uk>

Our webmaster, Chris Holt, would welcome any material for the members observation page – particularly photographs.

ISS/Iridium data:

<http://www.heavens-above.com/main.asp>.

Space weather & aurora forecasts:

<http://www.pfrr.alaska.edu/~pfrr/AURORA/INDEX.HTM> and <http://www.skypub.com/news/astroalert/astroalert.html>.

DATES FOR YOUR DIARY

19th to 23rd November (First Clear Night): Observing Evening at Bury Down.

26th November: Beginners' Meeting in the Perry Room. 8pm.

10th December: Speaker Meeting 8pm. “The Mars Beagle Project” by Dr Simon Peskett (RAL).

The editor of “SpaceWatch” is Andrew Ramsey, who would very much appreciate your help and contributions. Please send any news, observations, photos, etc. to:

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