

Vol. 1 No. 4

DURHAM
ASTRONOMY

"Eye on
the
Sky"

July 1982

Editor:
Scott Ramsay



Newsletter of:
THE DURHAM REGION ASTRONOMICAL
SOCIETY

DRAS Meetings for Remainder of 1982

Monday July 5 8pm (Final prep for eclipse)
Monday Aug 9 8pm (Final prep for Perseids)
Saturday Sept 11 8:15pm
Saturday Oct 9 8:15pm
Saturday Nov 13 8:15pm
Saturday Dec 11 8:15pm Annual Meetign

Star Parties for Summer 1982

Mon/Tue July 5/6 Lunar Eclipse Party
Tuesday August 10 Perseids
Wednesday August 11 Perseids
Thursday August 12 Perseids

President's Message

With the completion of our first 6 months of existence the society is finally starting to prosper. We have several new membes that have added greatly to our diversity.

This summer is looking especially good. On July 6, weather permitting, we should be able to enjoy the first total lunar eclipse visible from here in several years, and with the longest period of totality in over a century. Hopefully everyone can make it out for a lunar eclipse STAR PARTY.

Another extremely important event is the establishment of a domed observatory. All we need is the site and a small investment of time and money to make it operational. If current negotiations go well, it could be operational sometime in July 1982.

The third and last major event this summer is the Perseid meteor shower. The Perseids (one of the best showers) peak on August 12 which is last quarter moon this year. Hopefully 3 or 4 star parties will be organized.

Laete Observetis
Walter MacDonald, President.

Editor's Notes

July and August promise to be very active months for the DRAS with the total lunar eclipse on the night of July 5/6 and the Perseid meteors which have their maximum August 12. I hope many people will be able to get out and observe these events.

On May 1 a public display was held at the McLaughlin Public Library for Astronomy Day. Telescopes and display boards were set up and films were show. Also, a display window was set up at the library for the two weeks prior to and following Astronomy day.

On May 18 several DRAS members attended the Carl Sagan lecture at Convocation Hall in Toronto. The lecture was well enjoyed by all who were in attendance.

I hope to see many of you at the upcoming events over the next two months and at the meetings which are listed above.

Good Seeing
Scott Ramsay
Editor DURHAM ASTRONOMY

July's Lunar Eclipse

On the evening of July 5/6 the moon will pass through the Earth's shadow resulting in a total lunar eclipse. Important times for the eclipse are as follows:*

Moon enters penumbra	0 ^h 22.2 am EDT
Moon enters umbra	1 32.8
Totality begins	2 37.8
Mid-eclipse	3 30.9
Totality ends	4 24.1
Moon leaves umbra	5 29.0
Moon leaves penumbra	6 39.6

The time of moonset in Oshawa is about 5h 51m am EDT. Total duration of the eclipse is six hours 17 minutes.

Darkness of the Eclipse**

This is a very central eclipse and the moon will pass almost exactly through the middle of the Earth's shadow. We expect a very dark eclipse and the darkness of the eclipse can be measured using the five-point Danjon scale.

L-0 Very dark eclipse, moon almost invisible in mid-totality.

L-1 Dark eclipse, gray or brownish colouration; details distinguishable only with difficulty.

L-2 Deep red or rust-coloured eclipse, with a very dark central part in the shadow, and the outer edge of the umbra relatively bright.

L-3 Brick-red eclipse, usually with a bright or yellow rim to the shadow

L-4 Very bright copper-red or orange eclipse, with a bluish very bright shadow rim.

Examine the moon near the beginning, mid, and at the end of totality to get an impression of the appearance of the inner and outer regions of the umbra and assign an L rating

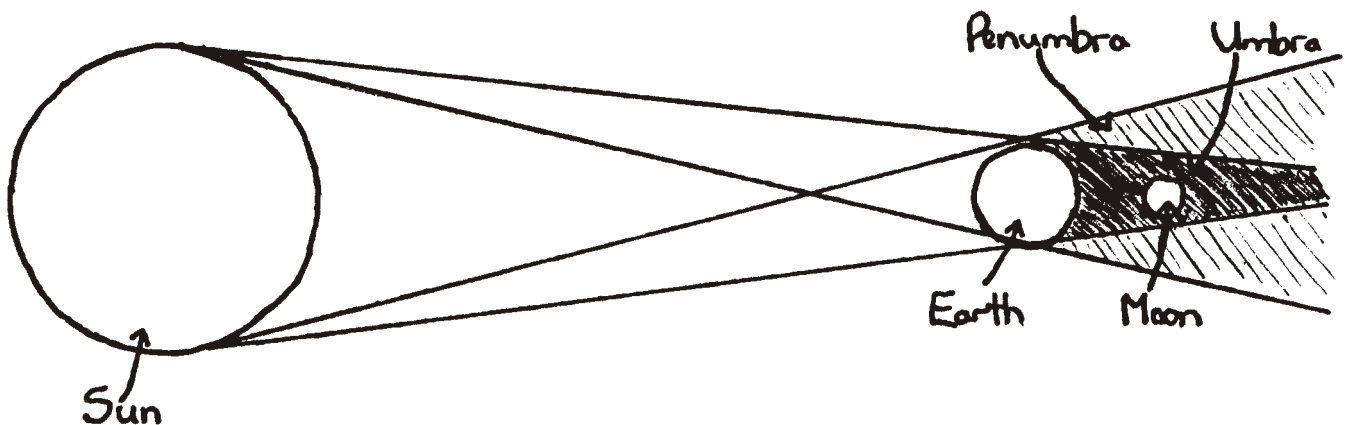


Diagram of a lunar eclipse
(Not to scale)

* From The 1982 Astronomical Almanac

**From the May-June issue of 'Scope