



# THE SHORELINE OBSERVER

October 1993

Newsletter for the Shoreline Amateur Astronomical Association

Robert Wade, Editor

## Next Meeting

West Ottawa Middle School Planetarium  
October 21, 1993 at 7:00 P.M.

- **Refreshments**
- **Business Meeting** including:
  - Election of new officers
  - Report on "Long Eye"
  - Update on John Dobson
  - Review of non-profit status
  - New Business
- **October Sky Tour** by Sandy Plakke
- **International Dark Sky Association** slides by Pete Burkey

## Board Meeting Highlights - 9/23/93

- **Treasurer's Report:** \$424.32
- **Term limitations** were discussed. Is it time to go to a two year term?
- Pete reviewed plans for the 9/28 **SPICA Workshop** scheduled for Pine Creek Elementary.
- **Fall Star Parties:** scheduled for Vivekananda Monastery October 15/16 & November 12/13. Friday nights if clear, Saturday as back-up.
- **Peter Chan** will present a slide show for our 11/18/93 meeting highlighting the 1993 **Perseid Meteor Shower**.

## Astro Quiz by Mike Henry

Every month I will print 5-10 questions about astronomy. Some will be easy, some will be nearly impossible. Answer the questions and bring the answers to me at the next club meeting. When you get 25 questions correctly answered then you will win a gift certificate for \$7.00 to use at Great Lakes Pizza Co.

- 1) If ZENITH is directly up, then what is directly down?
- 2) In what year was John Dobson born?
- 3) As an astronomer at Mauna Kea Observatory, your job is to determine the spectrum of the stars that are within 500 million light years. If you were to receive a spectral shift of +0.01255, then what size shoes does the astronomer wear?
- 4) In what year was the first artificial earth satellite launched?
- 5) What is the visible surface of our star called?

## Refurbishing "Long Eye" by Mark Logsdon

On Saturday September 25, a contingent of SAAA members converged on Vivekananda Monastery in Ganges to spend a few hours sprucing up the 22" Dobsonian telescope. The observing pad and stairs also needed attention. After little or no use this past year, the 22" scope - dubbed "Long Eye," needed some general fall cleaning.

As yellow jackets from a nearby hive zoomed about, we wheeled the big scope out of storage.

The primary and secondary mirrors were examined. The reflective coating on the primary mirror, just replaced a couple of years ago, is beginning to be tarnished. The diesel tractor parked next to the scope probably doesn't help when its engine is cranked over. The secondary was deemed good enough to avoid replacement, although it has a couple of small tarnish spots.

The tube was rotated several degrees to counter droop and provide a better viewing angle. Next, a new eyepiece holder was fabricated to replace the inadequate existing one; a move also intended to provide a greater focusing range with higher power eyepieces. Long-Eye was then given a general "fall-cleaning."

The area of the viewing pad was also addressed. The overgrown pasture had an access pad mowed through it and the observing stairway brought back onto the pad - to the chagrin of a field mouse which got in the way of the pivot wheel... Work on freeing up the frozen wheel joints and repairing the flat tire continues.

# **International Meteor Organization 1994 Meteor Shower Calendar**

Compiled by Alastair McBeath

Shower	Activity	Maximum
Quadrantids	Jan 01-Jan 05	Jan 03
$\pi$ -Puppids II (3)	Jan 06-Jan 14	Jan 10
$\delta$ -Cancrids	Jan 05-Jan 24	Jan 17
$\alpha$ -Crucids	Jan 06-Jan 28	Jan 19
$\lambda$ -Velids II (3)	Jan 18-Jan 26	Jan 21
$\alpha$ -Carinids	Jan 24-Feb 09	Jan 31
Virginids	Feb 01-May 30	several
$\theta$ -Centaurids	Jan 23-Mar 12	Feb 01
$\alpha$ -Centaurids *	Jan 28-Feb 21	Feb 07
$\sigma$ -Centaurids	Jan 31-Feb 19	Feb 11
$\delta$ -Leonids	Feb 05-Mar 19	Feb 15
$\gamma$ -Normids	Feb 25-Mar 22	Mar 14
$\beta$ -Pavonids	Mar 11-Apr 16	Apr 07
Scorpid/Sagittarids (1)	Apr 15-Jul 25	several
Lyrids *	Apr 16-Apr 25	Apr 22
$\pi$ -Puppids *	Apr 15-Apr 28	Apr 23
$\alpha$ -Bootids	Apr 14-May 12	Apr 27
$\eta$ -Aquarids	Apr 19-May 28	May 03
$\alpha$ -Scorpid (2)	Mar 26-May 12	May 03
Ophiuchids N (2)	Apr 25-May 31	May 10
$\beta$ -Corona Australids(2)	Apr 23-May 30	May 15

$\kappa$ -Scorpid (2)	May 04-May 27	May 19
Ophiuchids S (2)	May 13-May 26	May 20
$\omega$ -Scorpid (2)	May 23-Jun 15	Jun 04
$\chi$ -Scorpid (2)	May 24-Jun 20	Jun 05
$\gamma$ -Sagittarids (2)	May 22-Jun 13	Jun 06
$\theta$ -Ophiuchids (2)	Jun 04-Jul 15	Jun 13
Lyrids (Jun)	Jun 11-Jun 21	Jun 16
Bootids (Jun)	Jun 26-Jun 30	Jun 28
$\lambda$ -Sagittarids (2)	Jun 05-Jul 25	Jul 01
Pegasids	Jul 07-Jul 11	Jul 10
Phoenicids (Jul)	Jun 24-Jul 18	Jul 15
Piscis Austrinids	Jul 09-Aug 17	Jul 28
$\delta$ -Aquarids S	Jul 08-Aug 19	Jul 28
$\alpha$ -Capricornids	Jul 03-Aug 25	Jul 30
$\iota$ -Aquarids S	Jul 15-Aug 25	Aug 04
$\delta$ -Aquarids N	Jul 15-Aug 25	Aug 12
Perseids	Jul 17-Aug 24	Aug 12
$\kappa$ -Cygnids	Aug 03-Aug 31	Aug 18
$\iota$ -Aquarids N	Aug 11-Sep 20	Aug 20
$\pi$ -Eridanids	Aug 20-Sep 05	Aug 29
$\alpha$ -Aurigids	Aug 24-Sep 05	Sep 01
$\delta$ -Aurigids	Sep 05-Oct 10	Sep 09
Piscids S	Aug 15-Oct 14	Sep 20
$\kappa$ -Aquarids	Sep 08-Sep 30	Sep 21
Puppids/Velids	Sep 28-Dec 30	several
Capricornids (Oct)	Sep 20-Oct 14	Oct 03
$\sigma$ -Orionids	Sep 10-Oct 26	Oct 05
Draconids *	Oct 06-Oct 10	Oct 10
$\epsilon$ -Geminids	Oct 14-Oct 27	Oct 20
Orionids	Oct 02-Nov 07	Oct 21
Taurids S	Sep 15-Nov 25	Nov 03
Taurids N	Sep 13-Nov 25	Nov 13
Leonids *	Nov 14-Nov 21	Nov 18
$\alpha$ -Monocerotids	Nov 15-Nov 25	Nov 21
$\chi$ -Orionids	Nov 26-Dec 15	Dec 02
Phoenicids (Dec) *	Nov 28-Dec 09	Dec 06
$\sigma$ -Puppids II (3)	Nov 27-Dec 12	Dec 06
Monocerotids (Dec)	Nov 27-Dec 17	Dec 10
$\sigma$ -Hydrids	Dec 03-Dec 15	Dec 11
Geminids	Dec 07-Dec 17	Dec 14
Coma Berenicids	Dec 12-Jan 23	Dec 19
Ursids *	Dec 17-Dec 26	Dec 22
$\tau$ -Puppids (3)	Dec 19-Dec 30	Dec 23