

# **The Shoreline** **Observer Part II**

Newsletter for the  
Shoreline Amateur Astronomical Association

**September 1995**

President - Phil Sherman

Vice President - Arlin Ten Kley

Secretary/Treasurer/Editor - Mike Henry

## **September Meeting**

The September meeting of SAAA will be held on Thursday September 21st at 7:00 PM in the West Ottawa Middle School Planetarium.

- ♦ Business Meeting.
- ♦ Sandy will give a tour of the September night sky.
- ♦ Bob is giving a presentation on the Internet
- ♦ Edna will be bringing refreshments.

## **Astronomy on the Internet**

Bob Wade will be giving a presentation of the Internet as it applies to astronomy. He has many addresses to try for us, including NASA and many astronomy facilities. For those of you with a computer, be sure to bring your address book.

## **Star Party!!**

Our next Star Party will be this Friday or Saturday (the 22nd & 23rd) at dusk. We will be meeting at Vivekananda Monastery in Ganges. If you need a map, ask Mike for one at the next meeting. Once again it is important that we use Big Eye as often as possible or we may find that someone else in another state will have the use of it in their state.

## **GALILEO GETS A SHOWER**

Still three months and 60 million km from Jupiter, the Galileo orbiter is passing through an intense barrage of interplanetary dust. Each day an on-board dust detector is registering up to 20,000 hits from microscopic particles, all coming from Jupiter's direction at 40 to 200 km per second. But they are apparently no larger than smoke particles, so the spacecraft is not in danger. It's not clear whether the source of the dust is the moon Io, Jupiter's tenuous ring, or debris left over from Comet Shoemaker-Levy 9. The Ulysses spacecraft also got caught in dust thrown out from the giant planet in early 1992, coincidentally just about when the comet was ripped apart by Jupiter's gravity.

## Comet Comments

Two new comets have been discovered recently, one should be visible in our morning sky soon. Meanwhile, Comet Hale-Bopp continues to look promising.

C/1995 Q1 (Bradfield): William Bradfield of Australia discovered this, his 17th comet, on the evening of August 17. Bradfield found it with his 6" refractor. Then at magnitude 6, the comet was closest to the sun (0.44 AU) on Aug. 31. It will emerge into our northern morning sky in late September.

C/1995 Q2 (Hartley-Drinkwater): Discovered by Malcolm Hartley on plates taken by Michael Drinkwater (at Siding Spring, Australia) on Aug. 29, this 13th magnitude comet was closest to the sun at 1.89 AU on Aug. 3. It is now dimming in our southern morning sky.

Comet Hale-Bopp: This comet continues to slowly brighten in our southern evening sky. The hope is that this comet will become quite bright in late 1996 and early 1997. The Northern Hemisphere is favored for this comet. With a highly-inclined orbit, Comet Hale-Bopp crosses northward through the earth's plane at 5.0 AU from the Sun (mid-March 1996), then descends through the plane (mid-May, 1997) at about 1.12 AU. By time we reach that point the comet will be long gone, and there is no chance of it hitting us.

## EPIHEMERIDES

### 6P/d'ARREST C/1995 Q1 (BRADFIELD)

DATE	(00UT)	R.A.(2000)	DEC	MAG
09-15	00h46.1m	-32d00m	146d E	10.5
09-25	00h48.6m	-34d18m	144d E	11.0
10-05	00h49.0m	-35d06m	140d E	11.6
10-15	00h49.1m	-34d38m	136d E	12.3

## 1994 O1 (HALE-BOPP)

DATE	(00UT)	R.A.(2000)	DEC	MAG
09-15	18h17.6m	-30d02m	102d E	10.3
09-25	18h16.3m	-29d34m	92d E	10.3
10-05	18h16.3m	-29d06m	82d E	10.3
10-10	18h16.7m	-28d52m	77d E	10.2

## THE POSITIONS OF COMET HALE-BOPP THROUGH 1997

Below is a table giving information about Comet Hale-Bopp through 1997. The date is followed by Right Ascension and Declination in 2000 coordinates. This is followed by the comet's distance to the Sun (R) and the Earth (D) in astronomical units. Following this is the comet's elongation in degrees from the sun as seen from the Earth. Then the "E" means that the comet is in the evening sky, while a "M" means it is in the morning sky. The final column provides a magnitude estimate assuming that this comet behaves normally and that its current brightness is not due to a temporary outburst.

## 1994 O1 (HALE-BOPP)

DATE	(00UT)	R.A.(2000)	DEC	R (AU)	D (AU)	ELONG	MAG
10-15-95	18h17m	-28.6d	6.43	6.66	72	E	10.2
11-04-95	18h23m	-27.7d	6.25	6.79	54	E	10.1
11-24-95	18h31m	-26.8d	6.07	6.85	36	E	10.0
12-14-95	18h42m	-26.0d	5.89	6.82	18	E	9.9
01-03-96	18h55m	-25.0d	5.70	6.69	2	E	9.7
01-23-96	19h08m	-24.0d	5.52	6.45	17	E	9.5
02-12-96	19h20m	-22.8d	5.33	6.11	34	M	9.2
03-03-96	19h32m	-21.6d	5.14	5.69	52	M	8.9
03-23-96	19h40m	-20.3d	4.94	5.20	70	M	8.5
12-28-96	18h38m	+04.0d	1.80	2.61	27	M	2.6
03-18-97	23h35m	+44.4d	0.95	1.33	46	M	-1.5
06-06-97	06h04m	+08.0d	1.46	2.35	22	E	+1.5
01-12-98	05h54m	-63.8d	4.05	3.89	92	M	7.0