



PERTH OBSERVATORY  
Department of Conservation and Land Management

**Perth Observatory Volunteer Newsletter**  
**August 1997**  
**Editor: Nikola Angus**

### **Training Nights - URGENT!**

Two Training Nights have been scheduled before the next season.

Monday 1st September 7pm

Thursday 4th September 7pm

The Observatory needs to find out which volunteers still want to participate, update volunteer registration forms, update volunteers on the minor changes to night tours and to start the roster system again. The meeting will take about 30 mins and there will be telescope training after. Contact James Biggs to confirm your place so that we can evenly distribute participants over both meetings.

**NOTE:** Attendance at either of these sessions is **compulsory** if you want to participate in the Night Tours programme (J.B)

September is just around the corner and so is the start of the Night Tours. Two **volunteers are urgently needed** for the first set of tours commencing on the 7th and 8th of September with the first tour starting at 7pm volunteers will be required to be at the Observatory by 6.30pm. Two more volunteers will be required for night tours on the 23rd and 24th of September. The Night Tours will be in full swing from the October the 6th onwards and volunteers to add their name onto list as soon as possible.

Two Astronomy Field Night volunteers are needed for the 8th of September in Subiaco and one volunteer is required an Astronomy Field Night in Applecross on the 9th of September. Could those interested please contact Peter Birch. Those interested in learning to set up tripods and telescopes please contact Vic Levis (9293 5392) for training night details.

### **Highlights for August**

**Venus** is still dazzling in the western evening sky setting approximately 2 hours after the sun. **Mars** can be seen high in the north western evening sky setting around 11pm. **Jupiter** is visible the whole night and on the morning of the 28th of August can be seen without any moons in the sky near the planet. The reasons for this is: Callisto is in eclipse, Ganymede is in occultation, Europa is in transit and Io is in occultation. **Saturn** can be seen in the late evening sky, rising around 10pm to the east. **Mercury** is best for viewing in the western evening sky until mid month. The planet then swings back toward the Sun getting lower in the western sky.

As you may have read in Night Sky column of Monday's West Australian Newspaper there has been many reports of meteor sightings, coincidentally Jacquie Milner has sent in another contribution for the newsletter on Falling Stars and Meteor Showers.

### ***Falling Stars and Meteor Showers***

*Falling stars are correctly called meteors. They only become meteorites once they hit the ground. The average size of a meteor that is seen is only the size of a large grain of dust. They are burning up as they hit the Earth's atmosphere 100 km above us. The best time to see meteors is between midnight and dawn, as this when the Earth begins to "turn" into them as it travels in it's orbit. For those people who mutter to you that they've never ever seen a meteor there's only one solution - keep looking up.*

*At certain times of the year you are more likely to see meteors than others, when we have a meteor shower. A shower describes the meteors observed that seem to radiate out from the same point in the sky. So we have the Eta Aquarids, because the radiant of the shower is very close to the star Eta Aquarii. These showers occur when the Earth intersects the debris streams of comets. Comets leave dust trailing behind them, following them around in their orbits. The Eta Aquarids in May and the Orionids in October are both associated with the orbit of Halley's Comet. The Leonids in November are associated with Comet Temple-Tuttle. Other major showers have their own associated comets too.*

*Comet Temple-Tuttle returns every 33 years and will next do so in 1998-1999. The Leonids are most famous for their storm events. In 1966 rates were estimated at their peak to be around 144 000 per hour! The storm event was only seen over several hours and only over the Americas. The possibility of another storm like the last raises questions of safety for satellites which may be severely damaged, and the space shuttle if it flies at the time.*

The meteor showers that can currently be observed are the Aquarids, the Alpha Capricornids, and the Perseids. Best viewing should be in the early morning sky, with meteors coming from the North East.

### **Observatory News**

At the last staff meeting action on the following issues were discussed:

- Children on tours - advise against under 10's when booking and attempt to book in early tour.
- Meade 16" telescope - ordered and about to be shipped from US, new dome designed, construction to go out to tender.
- September Night Tours - will only be partially booked due to high percentage of canceled tours from bad weather in May. Instead 1 week Deep Sky (Mon to Thur) in November and extra Day Tours on those nights canceled in September - in future (1998) 2 weeks of Day Tours in September.
- Casual staff - is required for Observatory office, work will alternate between 4 day shifts and 4 night shifts. For further information and to register your interest please contact James Biggs.
- Start times - earliest 7pm, latest 9.54pm (Dec & Jan)
- Tour content - No 24" or Astro visit unless we don't have any stars to show, or if we need to make up some time, Tours should be kept to around 90 mins.

Attached to this month's newsletter is a copy of the Perth Observatory Programme Report 96/97 it was prepared for the CALM 96/97 and highlights the results of the department and government.

### **Road Works**

Walnut Road is currently being widened. The road is quite hazardous during the day so please be careful when traveling to the Observatory at night.

### **Special Events**

Total Lunar Eclipse **02:50 AM** 17 September 1997

All those wishing to view this event at the Observatory call James Biggs to reserve a place. Vic Levis will be on hand to assist those wishing to photograph this event.