



PERTH OBSERVATORY
Department of Conservation and Land Management

Perth Observatory Volunteer Newsletter

October 1997

Editor: Jacquie Milner

The recent warmer weather has brought some good clear skies in September and the prospect of more to come with the arrival of the Summer. Several volunteers were at the Observatory to watch the Lunar Eclipse in September without too much disturbance from passing high cloud. During totality they put the new 16" telescope through its paces and everyone was impressed with both the sights and the new telescope. With a built in computer that has an extensive range of objects with co-ordinates already programmed in, the Universe is available at the press of a button!

Highlights for October

Mars is moving quickly through Scorpio this month, passing near Antares, the "Rival of Mars". It is above **Venus** in the western evening sky. Both planets set about 10.30 PM. **Jupiter** is still shining brightly in Capricorn, overhead at sunset. **Saturn** is now rising before sunset in the north east, having reached opposition on the 10th. **Mercury** remains hidden in the Sun's glare until next month when it will reappear in the evening sky.

Comet Hale-Bopp is still easily visible in binoculars in the constellation of Puppis, showing a broad fan-shaped tail. It is slowly moving southwards into Vela and is rising a little earlier each night. By the end of the month it will be rising in the early evening.

The **Orionid meteor shower** is active this month into early November. The last quarter moon may get in the way but if you are feeling restless in the early morning hours around the 22nd of October, the maximum of this shower, have a look for some bright meteors.

Volunteer Practice Nights

Practice nights for Volunteers are held on the first Monday after the last quarter moon. If you would like to attend one these nights please ring **Vic Levis** on 9293 5392 to confirm your place. We would like volunteers to ring beforehand to avoid overcrowding at the telescopes. The next Practice Night on Monday 27th October will be reserved for the new volunteers but further practise nights will be open to all. See the Volunteers notice board for dates.

Astrofest

The 2nd annual Astrofest will be held at the Joondalup Areal on Saturday 6th December from 2-10 PM. Volunteers are required to help out in 1-2 hour shifts and will get free entry and a visit to the VIP lounge to meet world renowned astrophotographer David Malin, so don't forget to bring your book to get signed. Please ring Jamie Biggs to put you name down if you can help.

Summer Lecture "Under the Stars"

On Friday 5th December at 8 PM astrophotographer David Malin will give a talk and slide show at Perth Observatory. Volunteers are required to help out on the night. If you give at least 30 minutes of assistance you will get free entry for you and one guest (tickets required for entry). Please ring Jamie Biggs to put your name down if you can help.

Statistics on Observatory Volunteers

Night Tours:	28 visits	98.8 hours
Archiving:	30 visits	152.8 hours

Landscape Expedition - "Under Desert Skies"

Jamie Biggs and Greg Lowe led a party of 9 to the Gibson Desert Research Camp, to do star gazing and astrophotography. Other activities included feral animal monitoring and bird watching. The astrophotography was a limited success, due to trying conditions, such as the days being 35°C with minimal shade around. Complications arose with the visit to Surveyor Generals Corner (the intersection of the state borders between Western Australia, South Australia and the Northern Territory) for the celebration of the 75th anniversary of the Boundaries Act of 1922 between WA, SA and the Commonwealth Government. Visits were made to the Young Ranges, Alexander Springs and Mount Worsnap instead. Verbal feedback indicated that a great time was had by all.

A funny thing happened during my night tour...

The editor is looking for anecdotes and stories of happenings during night tours. If something amusing happened on one of your nights, please drop the editor a line via the observatory, marked "attention volunteer newsletter". As an example, this one occurred sometime last year.

Greg is fond of describing the distance from the Earth to Moon in terms of long it would take his old Holden to drive there. One visitor, after hearing that it would take about 20 years, quipped "It would probably take 30 years in a Volvo!"

47 WHAT?

You know the one - that fantastic globular cluster next to the Small Magellanic Cloud in the south. Lying only 19,000 light years away it looks spectacular in a telescope. It is marked on star charts as 47 Tucanae or NGC 104. It seems a shame that such a beautiful object has such a mundane name. You might note that although the globular is not a star it has a star name (omega Centauri is another example of this).

The main system used for naming stars to sixth magnitude, which are fairly easy to see with the naked eye, is known as the Bayer system. This system is supposed to work (as there are there are many exceptions, such as the constellation of Sagittarius) by the brightest star in constellation labelled with the Greek letter α (alpha), the next brightest β (beta) and so on. When there are more stars than letters in the Greek alphabet they may be known by other systems. Some are designated by Roman letters and some have Flamsteed numbers.

Flamsteed was the first Astronomer Royal, and if you know some astronomical history or have read *Longitude* by Dava Sobel you may know his of his work. For each constellation of his time he labelled stars with a number, moving from north to south and east to west. In his day telescopes were not of the high quality that we have today and our globular cluster looked more or less like a star. If we look in the sky today it appears to the naked eye like a faint, fuzzy star.

When you are describing an object in a constellation, the constellation name is "latinised" into the genitive case. Hence the star known as 47 in the constellation of Tucana becomes 47 Tucanae. Enthusiastic amateurs shorten this further to talk about "47 Tuck" and hold many unresolved debates about which is the better globular cluster, omega Centauri or 47 Tucanae? Decide for yourself.