



PRIME FOCUS

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President's Report

Halfway through 1998 and hasn't it gone quickly. MAS has continued to roll along having guest speakers and fun nights. The remainder I am sure will continue to be enjoyable with such guests as Peter Williams, Jonathan Nally and others.

This month saw us back at Carol's for a star camp. Despite the good turn up of members, the weather did not show much signs of being kind to us. However, we did enjoy a BBQ and socialising till late in the night.

Many thanks to Daniel Ross for a fun trivia night. I had a great time as I'm sure most of you did.

For the next star-night contact me some time during this month, so I can get an idea of numbers.

Coming Events

~~July 20th~~ Ralph Buttigieg, President of BAA will talk about 'A Mission to Mars'.

~~July 20th~~ ^{Aug 17th} – Peter Williams will speak and encourage our Society to start looking for Variable Stars.

8th August - Annual Star Party at UWS Macarthur.

All members and visitors welcome. This event is free to all. Seth Shostak, our regular American SETI guest will be talking (entertaining us again.) He will also be promoting his new book. Stalls from various space shops and agencies plus a planetarium and many scopes to view to heavens. Noel will be contacting those who said on their application/renewal form they would like to assist in star nights.

Latest News

NASA, via the Hubble telescope has seen a giant planet three times larger than our own Jupiter. The planet which is yet to be confirmed is called TMR-1C (A & B are both stars.) It orbits at 209 million kilometres from its Sun and is considered to be a proto-planet (one still in the process of formation.) The star system is 450 light years away, plus the planet would have no life as we know it.

Mars

The fourth planet from the Sun continues to amaze astronomers and scientists all over the world. The latest finding by Global Surveyor states that more ice water in the form of frozen mud could be lying in a crater 48 kms across with a dark area 19 kms to 29 kms deep. Maybe with more water on Mars than previously thought,

Mars enthusiasts (like myself) can once again hope for a manned mission soon.

MIR

Andy Thomas will shortly be coming home, and not long after his recovery he will be flying out to Australia for some talks. I believe the powerhouse museum has him on their books. More details when I know a date.

The aging space station is once again falling apart. The computer system has yet again failed, however, the Astronauts do have a new backup computer which is soon to be installed and will correct the problems of low power.

I reported last month that Mir will be still operational in 1999 by the French. Since then reports are coming in that after Andy Thomas and the two Russian cosmonauts finish their time up there it will be left to slowly disintegrate into Earth's atmosphere. One major concern is that not all of the space station will burn up during re-entry. Let's hope it has been directed towards the ocean and not out of control and headed for a populated city.

Phil Ainsworth ■

Wilton Cloud Night

Many thanks (again) to Carol for kindly hosting the May Camp Constellation at her place at Wilton.

A large contingent turned up for an excellent display of cirrus and strato-nimbus clouds, occasionally disturbed by the odd blurred (but short lived) star. They even stayed (the clouds, that is) after I kindly left to watch the Swans get creamed by the Saints – I would have had more fun watching the clouds.

It's FUN to be a MASer.

However, the night wasn't a total waste. Those who turned up had a great time sitting around a large circle talking about this and that, getting to know each other (there was a good number of new faces – though we couldn't really see the faces.)

One thing we all agreed up – we want our Society to stay the **friendly** society that it is. By all means let's grow in size, develop other avenues of amateur astronomy (variable stars, supernovae, etc), but let's not lose our most valuable asset....our friendliness. It's FUN to be a MASer.

Bob Bee ■

I've Never Seen So Many Stars!

We turned off the highway and drove into the reddening western sky, as we arrived at Belanglo Forest on our way to International House. The prospect of being fed was an attractive incentive for my first dark sky observing night.

We all claimed a spot and set up our 'pods and mounts, as the sun slowly faded behind the Dividing Range. It was a glorious sunset.

Sirius was out first, followed by Alpha Centauri. Dick Everett could make out the Southern Cross first, as they still slowly entered my peripheral vision. Then the pointers showed up. The sky began getting darker until the same number of stars was visible as from my home in Sydney town. Noel's talk on the Canali of Mars was well received by the excited guests at International House. Dinner was Suuupppeerb.

So THIS is dark sky astronomy!

Venturing outside after dinner, I took a double take, as the sky had changed somewhat. There were about 5x more stars visible than before. So THIS is dark sky astronomy! (Also, DON'T leave your dew/lens cap off !) I found objects I had never seen before. The

Jewel Box below Crux, the Large Magellanic Cloud, (Orion's Sword came up well). As the sky got darker, it also got colder. (They didn't tell me how cold beforehand). All in all, it was the best night sky I had seen for decades.

Daniel Ross ■

...And Another View Of Belanglo.

There was a great roll up by the Society – there were at least seven scopes and 15 members there. The Alumni and students from Sydney Uni's International House made us very welcome. The students were from all over the world – Asia, Mexico, Canada, USA, UK...and Australia, and were an equal balance of male and female.

The sky was gorgeously dark. The Coal Sack was so black, you felt you could reach up and grab a lump. And the Milky Way...splashed across the sky like a spilt carton of Full Cream.

Despite the collection of telescopes, I found myself with a retinue of students asking for a tour with my 12x50 binoculars. Never one to disappoint or pass up a chance to address an attentive audience, we spent at least an hour touring Orion, Crux, Carina, Omega Centaurii False Cross, then Scorpius. The students had enquiring minds and kept me on my toes with questions about

distances, magnitudes and star types.

After an hour or so, when I went into the warm Log Cabin for a cuppa, we formed a huddle and debated the mysteries of Relativity, Big Bang theory, Quantum Theory, Black Holes, Dark Matter and you name it. It was fun. But embarrassing when I realised the students actually thought I was talking from a position of expert knowledge. I had to admit to my amateur status.

It was certainly a beautiful site to view the sky from. LMC and SMC were instantly observable, with the Tarantula Nebula visible by naked eye. Most open clusters were naked eye objects (M6, M7, M44, 'Bugged If I Know'). To add to the evening, we were treated to a meteor shower display, with one 'ripper' momentarily lighting up the sky.

I was so busy giving binocular tours, I forgot to have a look through the scopes. I'm told that the scopes were well patronised (I couldn't tell – it was so dark), giving magnificent views of the deep sky objects and that the Alumni and students were suitably impressed.

I understand we have an open invitation to use their site for our own star nights (with appropriate co-ordination with International House, of

course.) This is great, but there's one minor draw back. The distance! It's about 1 hour drive each way, and about 180km return trip from Campbelltown. That's a big travel commitment. But the observing rewards are also great. Something to consider.

Thanks, International House.

Bob Bee ■

MacDob:

The Society's 'Scope

The Committee has appointed Bob Bee 'custodian' of our 150mm MacDob, meaning he will issue and receive the 'scope from those who wish to borrow it. There is no hiring fee for MacDob, but to cover maintenance costs, you are invited to make a voluntary donation consistent with the pleasure that MacDob has given you.

Borrowings are usually from one meeting to the next, but in times of heavy bookings, it may be shorter. Members are advised that they will be asked to sign a form acknowledging receipt of all the components, and also accepting responsibility for any damage to the 'scope while in their care (other than reasonable wear and tear).

Contact Bob Bee on (02) 46251623 for your loan of MacDob. ■

Answers to May's Quick Quiz:

(by Geoffrey Mitchell)

1. 8.25 minutes
2. Large Magellanic Cloud (170,000 light years)
3. Chamaeleon
4. At least 21
5. Jupiter
6. 6 bands
7. a) Mars and Jupiter
8. July 20, 1969
9. On the Moon
10. Abr. for Sextant
11. 88
12. c) Crux
13. Feb 1835 by John Herschel
14. 30 – 40 deg angle
15. a) December 21, 1968
b) 3 crew members
c) Frank Borman, James Lovell Jr., William A. Anders
d) 5 days
16. Chamaeleon
17. There is not enough solar energy reflected off the Moon to disperse the clouds.

What's To See in June/July?

Mercury is now visible in the evening, setting at 1712 on 15th June (mag. -1.6) to 1910 on 20th July (mag. 0.8). From 25th to 28th June, there is a coincidental alignment of Mercury between the crescent Moon and Pollux (Gemini). Then, on 5th July, Mercury mixes it with the bees in M44 (The Beehive). These alignments are probably best enjoyed through binoculars.

Venus is mag. -4.0 moving towards mag. -3.9, rising at 0415 (ie in the cold morning) on 15th June to 0510 (still cold) on 20th July.

There's an interesting arrangement on 3rd July when Venus lines up with Hyades (Taurus), outshining Aldabaran on the other 'arm'. And on 15th July, Venus is 0.3° from Crab Nebula (M1). These are well worth a look, even in the early morning.

Jupiter – on 15th June, Jupiter rises about midnight (mag. -2.4) and on 20th July, rises 2150 (mag. -2.6). A very late night/early morning object - test your stamina. On 17th June (Wednesday morning) there is a 3° encounter the last quarter moon. Nice. But this is just a dress rehearsal. On **15th July**, there is a very close brush with the Moon (about 0.4° from Sydney), so get the cameras out. I expect some pictures for the next Prime Focus.

Jupiter's moons (ie the four Galileans), though there is no big deal, it's fun to view them when they all line up on the same side of Jupiter. Using *Astronomy Now*, this can be predicted from the patterns on pp102-104. For this month, it happens on: 23rd June (west side); 3rd July (east); 7th July (west); 8th July (west); 17th July (east) and 20th July (east). Enjoy!

Saturn is definitely a morning object. It rises at 0243 (15th June) to 0037 (20th July) with mag. about 0.3. There is a 1.5° encounter of Saturn with the last quarter moon on 20th June – another camera opportunity?

Constellations: At this time of the year, it's a feast for those wanting to study certain constellations such as Crux, Centaurus, Lupus, Scorpius and Sagittarius. These are all conveniently high at civilised observing times, beating the tired and polluted horizons.

So, why not renew your acquaintance with Jewel Box, Eta Carina, Omega Centaurii, NGC5986 (7th mag globular cluster in Lupus), Antares, M4, M6, M7 and M80 in Scorpius, M8 (Lagoon Nebula), M17 (Omega Neb.), M20 (Triffid Nebula) et al in Sagittarius

It's a great time of the year for some of the best parts of the sky. Don't miss out!

Bob Bee