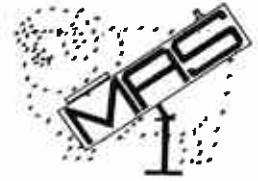


MACARTHUR ASTRONOMICAL SOCIETY Inc.

Journal



PRIME FOCUS

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President's Report

Greetings to all members and guests to our first meeting in the year 2001. I hope that the Christmas and New Year festivities were both a happy and safe time for you and your family and friends. Further to that I wish you well in your plans and aspirations for the year ahead.

Tonight it gives me great pleasure to introduce Peter Druery who is our guest speaker. I believe his topic will be on "capturing the really faint stuff." It's always great when our own members address us and we have them lining up at the post ready to go. For example:

Tonight – Astrophotography (Peter Druery)

February – Cosmology Theories (Robert Zindler)

March – Greenwich (Dick Everett)

April – Optical SETI (Dr Ragbir Bhathal)

I extend my appreciation to the above members and look forward to receiving information on a great selection of topics.

What's Been Happening?

Dr Don Neely was our special guest speaker in November and gave an excellent presentation on spectroscopy including information on chemical compositions of starlight. Also some hands-on experiments were available which made the night not only informative but entertaining as well. I thank Don for taking the time to talk to us.

We trialed a public observation night on 25th November and it was a great success with slides being shown (thanks Lloyd for the loan of the projector), Q&A

segments, a ton of scopes (well, the 16" is heavy) and well over 100 people. Young children took great delight in reminding me that my polar alignment was not good, as the Moon was forever escaping from Dick Everett's television. The Meade Observatory telescope provided outstanding views of the planets and members of the public were heard to say 'mad', 'sick' and 'cool' – high raise from teenagers indeed!

We still are working on some minor aspects but the Observatory program will be a highlight of our Society's activities this year so it's important to do the best we can. Thanks for everyone's support.

Our Christmas Party on 9th December was lots of fun. A great turnout with kids everywhere, running, riding bikes around the domes. If we added a jumping castle and

face painting, it would have been perfect. Lots of food (yours) and lots of drink (yours). But it would be remiss of me not to thank the ladies who baked the cakes and goodies. It was an opportunity to meet the wives and families and I know everyone had a great time. After dinner (thanks John for bringing the BBQ) it was time to engage in 'spirited' conversation kindly provided by the social lubrication of a few bottles of red wine.

Field Nights

The nights have been a major disappointment due to the fact we don't own a weather machine. On the 16th December at the Airfield, we attended in force with many keen astronomers wanting to increase their Messier count or take that fantastic photo of Jupiter and Saturn. What looked like a fantastic night at the start completely clouded over. I am sick to death of playing 'Spot the Star'.

The field night on 30th December was a big fizzer as well. Oh well, Chinese take-away and a Blockbuster video (Wing Commander) will have to suffice.

Definitely something that wasn't a fizzer was November's Prime Focus. Thanks to all those who contributed and to Bob Bee for all his hard work in putting it all together.

Remember, we are always looking to put to print your views, observations and commentaries on anything astronomical.

New Members Assistance

If you have recently joined us or perhaps been a member for a while and need some assistance with the 'basics', then please arrive at these monthly meetings earlier, say 7.15pm. We can allocate this time to answer questions for which there is no opportunity to ask during the formalities of the general meeting.

The questions could be anything astronomical like "what does a Barlow do?" or "how to find Saturn," "why are stars different colours?" I'm looking at running this for February, March and April and then gauge its success. For other members, arrive for 7.30pm as usual.

That's it for now. Please refer to the Official Dates section to find out what's coming up.

Regards

Noel Sharpe – President

MAS Reporter

The following are some members' comments about the initial Observatory Public Night held on 25th Nov 2000. And yes, I have their permission to print it.

Peter Druery: "A good gauge on how well it went was the comments heard while looking at Jupiter and Saturn. Words like 'sick', 'mad' and 'cool' or just plain speechless. The observatory telescope performed with perfect alignment."

Ragbir Bhathal: "Fantastic night. Not too many people, very manageable. Last time (May) they were waiting up to an hour to look through the (16") telescope. Someone even came from Bowral. Maybe someone should go around and listen to the public's comments. We still need to look at publicity though. Still, 100 people is manageable. I think the nights will work out very well. Families can come and spend a while, so it should work well man."

Lloyd Wright: "Everybody was happy and had a good time. There were people every where, especially near the dome. We have a good thing going here."

John Rombi: "Science was the big winner tonight, astronomy in particular. People were amazed and enthusiastic, especially when looking at Saturn through high power. Some people asked about the vastness of space. I explained about how far light travels in one year. e.g. the Andromeda Galaxy is 2 million light years away, the Magellanic Clouds 200,000 light years away. The public were stunned."

In Conclusion

You can see from the above comments that a lot of potential exists to promote our Society. It's also an opportunity for our own members to gain experiences they may not have had. It's important to read up, enquire and become knowledgeable about what you are showing to the public. Maybe even setting yourself some targets that other scopes may not be viewing that night.

Not wishing to be a party pooper but some work still needs to be done. Ragbir is talking about a large screen to show slides. Electrical leads need to be secure and safe and we need to deploy our scopes more evenly around the field. Crowd control, publicity and some security aspects need to be addressed. Some technical and operational issues with the observatory telescope has meant that the training of some members as operators has not been accomplished and this needs to be looked at as well.

So, dear readers, there you have it, the first edition of 'MAS Reporter.' You never know when you'll be spotted and asked for a comment. So be afraid...be very afraid.

James T Olsen
MAS Reporter for
The Daily Planet. ■

Space Station Sightings

There is a great web site to forecast sightings of the new International Space Station which, by reports, is supposed to be the next brightest object in the sky after Venus.

The site is:

www.spaceflight.nasa.gov/station

It has lots of spin-off pages that give all sorts of information about the ISS, but the most fascinating is an on-line page to tell you where and when to look to see the station. After you log onto this site, do the following:

1. Select 'Station' from the top menu.
2. Along the left of the page, about ½ way down, find the box "Realtime Station Dates". Select "Can I see the space station from my backyard?"
3. Select "Text Based Sighting Opportunities Lists."
4. From the alphabetical listing, find and select 'Sydney, Australia.'
5. Bingo! You will have a current list of dates when the ISS can be seen from Sydney.

Note that the times quoted are for Sydney's Daylight Saving. No conversion is required.

I was fortunate to see a great fly over on Friday 5th Jan at 4.50am. It went directly overhead from SW to NE. My impression of its brightness (I could be wrong) was that it was slightly less bright than Jupiter which was in the west at the time.

It's up there folks, so check it out. ■

Official MAS Program

20 Jan – Dark site at Airfield

27 January – Observatory
(No Public involvement)

17 Feb – Observ. Public
Night

19 Feb – Monday General
MAS Meeting

24 Feb – Dark site at Airfield

3 Mar – Observ. Public Night

19 Mar – Monday General
MAS Meeting

24 Mar – Dark site at Airfield

16 Apr – Monday General
MAS Meeting (Plus AGM)

21 Apr – Dark site at Airfield

(More dates will be added as
year progresses.)

Please use my mobile phone
0410445041 to confirm
conditions on the day. If you
wish, my phone now has
Message Bank for important
matters.

Noel Sharpe

Snippet:

Hubble's image of NGC3603 in Carina shows us a beautiful composite, in one field of view, of the entire interstellar recycling process. See it in colour on the November 2000 cover of *Sky & Telescope*.

What's To See This Month? Jan 15 - Feb 18

Some great alignments is what, and the warm balmy evenings make observing more pleasant.

Personally I think that December - February skies are the most dazzling and attractive of the whole year.

Directly overhead before midnight we have 7 of the 10 brightest stars to the naked eye.

PLANETS

High up in the western sky is brilliant **Venus** which is catching up to the Earth in its orbit and will pass between us and the Sun at the end of March. It will be at its greatest distance from the Sun on 17th Jan and therefore at its highest in the sky. There will be a close pass with the crescent moon on the 28 and 29th Jan. As Venus comes closer to us we will be able to watch its disk grow larger in size and its light grow to its brightest on the 22 Feb. From then it will gradually turn more of its unlit side to us although for a time it will appear to grow in brightness.

Mercury is also in the evening sky passing just 2.7° from the crescent moon on the 26th, $\frac{1}{2}$ an hour after sunset. It will pass between us and the Sun on the 28th and then it will be better as a morning object so look for it before sunrise. Best views of

Mercury this year will be in the morning till April and then in September

Uranus and Neptune lie in Capricornus as they have for the past few years and will pass the Sun and become morning objects late Jan, early Feb

Most of us have had our eyes drawn to **Jupiter** and **Saturn** over the last two months and these giants will continue to dominate the evening for a few months yet. At -2.6 Jupiter is dazzlingly white, with Saturn mag. 0.0 at upper left. Through binoculars they are framed nicely in a rich starfield located between the Hyades and Pleiades.. With Jupiter's day lasting less than ten hours, if you can't see the GRS (Great Red Spot) leave it for 5 hours and look again. Saturn's rings are tilted at 23° at the moment making it easy to see the "gaps" and the shadow of the planet on the rings. Many 'oohs' and 'ahhs' from people seeing it through a telescope for the first time.

Here's a trivia question!

How far is the inner edge of the first ring (C or crepe ring) away from the surface of Saturn?

Mars rises about 1 am on Jan 17 just below waning $\frac{1}{4}$ moon. This will be the best year for Mars fans until 2003 with the disk size being 21° and surface features should be visible. There will be a steady increase in brightness leading

up to opposition in June. You will find Mars in Libra before crossing into Scorpius

On February 1, there will be a nice line up after sunset in the west with the first $\frac{1}{4}$ Moon, Venus, Saturn and Jupiter

COMETS

(McNaught-Hartley) or C/1999T1 is predicted to be the brightest in 2001.

For comet hunters it should be visible at mag 7.0 on Wed. Jan 17 about 3 am in Libra. If it behaves you should be able to follow it into Serpens and Hercules, but sometimes these comets don't live up to predictions.

MESSIER

At least 18-20 are available before midnight over next month. Some hard to see but the majority easy, even for binoculars under reasonable skies

Good seeing!! IC

What I 'Saw' at Christmas

Now I know why they don't build observatories by the sea side...bad seeing. Baaaad! I took the plunge and my scope down the south coast. The stars, Milky Way, clusters were beautiful. But the planets ... well, I could see them, the rings and the moons, but detail? I could barely pick the clouds of Jupiter. Cassini Division? Forget it. Stick to the mountains, folks.