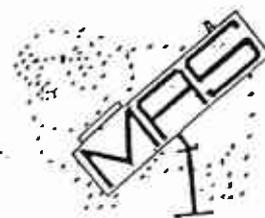


MACARTHUR ASTRONOMICAL SOCIETY Inc.



Newsletter

PRIME FOCUS

Volume 2 Issue 6

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PRESIDENT
PHIL AINSWORTH
(02) 9605 6174

VICE PRESIDENT
NOEL SHARPE

SECRETARY
DAVID MCBEAN
(046) 559725

TREASURER
ERIC BROWN

EDITOR
BOB BEE
(046) 251623

President's Report

Hello and welcome to members, visitors and especially Dr Seth Shostak our guest speaker to this meeting and our second 1997 Newsletter. I feel this format of a bi-monthly journal and newsletter is working well. The editor and writers find they have more time to prepare quality articles for the society members to read.

I am sure most of you would have enjoyed, as I did, our discussion at the last Society meeting about the camps and topics related to Astronomy.

Jonathan Nally wishes to apologise for any inconvenience caused by his absence at our June meeting.

On a personal note, I would like to thank all those members who contributed to making the meeting a success. Special thanks to Noel for his last minute, brief, and informative talk on Astro Photography and the camp.

I am happy to report that all but a few members have paid their fees.

Our current financial numbers are approx. 40. If you are one of the few unfinancial members, please see our treasurer Eric at the meeting or send membership fees to the following address:

Macarthur Astronomical Society
c/o The Secretary
P.O. Box 17
Minto, 2566

Latest Mars News.

Mars Pathfinder successfully landed on July 5th Australian time and dispatched a rover to explore the Martian terrain. Scientists have been reported to say it looks similar in appearance to the Arizona Desert in the United States. There are many huge rocks nearby, and mountains seen in the distance, giving a wonderful panoramic view of the 'country side'.

The probe landed only 30 kms from the proposed site in the area known as Ares Vallis. This area is south-east of Chryse Plantia where Viking 1 landed back in

Latest Mars News (Cont'd)

1976. Ares Vallis (Valley) is an ancient river bed which contains rocks from all over the planet. It is hoped that these many different types of rocks will indicate that Mars was once a warmer wetter planet in the past.

The small microwave oven sized rover (Sojourner) is expected to last 1 week minimum on its batteries, but it is hoped it can continue longer.

A full Mission status report will be in the August Journal edition of Prime Focus.

Global Surveyor will arrive in September and start transmitting data in Feb.98.

Space Station Alpha.

The first module for the international space station has been postponed from December to early-mid 1998, due to budget restraints and difficulties confronting the Russian Space Agency.

MIR Space Station.

The MIR Space Station continues to have its problems. A routine cargo vessel was due to dock with the orbiting space station this month, but unfortunately crashed into the solar panels and part of the main section of a science Habitat module. Power was reduced by 30-40% for quite a while and for 1-2 hours the computers shut down completely, leaving the station to drift without any controls, navigation or life support. The crew almost abandoned ship in the emergency Russian craft, but managed to survive the trying conditions.

Another cargo vessel has been sent from Russia to help with repairs. It has successfully docked with the space station. The astronauts will attempt to repair the damaged solar panels.

NASA has decided to continue sending astronauts to MIR as two are continuing their training at the Russian Space Centre.

Columbia.

The Columbia Space shuttle has been launched in a quick turn around from its aborted mission in May. Details on the May mission in Prime Focus Vol.2, Issue 5, p.3 & 4.

Columbia is completing zero-gravity experiments and gathering data for the International Space Station.

Coming Up:

- *26th July - Family Star Party at Macarthur University. (See detail notice).
- * 18th August meeting - Workshop.
- * 6th September -Macquarie Uni. open night. More details in August.
- * 15th September - Jonathan Nally.
- * September - Camp Constellation 5.
- * 20th October - Steve Manos on Space Camp etc.
- * 17th November - Andrew Reid on Cosmology, what you can see with Radio Astronomy and other exciting subjects.
- * December - Christmas break -- Picnic.
- * January Meeting - yet to be finalised.

ASTRONOMER PROFILE:

Mr Andrew Reid is an astronomy post-graduate at the University of NSW. He is currently doing his Ph.D. in Astronomy, his thesis relating to Radio Astronomy. He lectures at universities and for the school of Astronomy at Macquarie University, and will be speaking to us in November on Galaxies and Radio Astronomy.

Next month Profile - Dr. Ragbir Bhathal.

**Book Review: "The Case For Mars"
by Robert Zubrin.**

Robert Zubrin is an American engineer who has developed a program that can take humans to Mars within 10 years of implementing his plan. If taken seriously, which NASA is now looking at, a modified Zubrin plan would cost a mere 6-10 Billion. NASA originally estimated a mission to Mars would cost in the vicinity of 400 Billion dollars.

Zubrin's Mars Direct is a no-frills mission which he explains is extremely cheap and safe. The main idea is a 'live off the land' approach. Given a \$48,000 grant he developed a fuel producing machine that would work on Mars. The fool proof plan sends a cargo vessel with a habitat first. Once it has landed and produced fuel, a manned mission is launched, followed by another cargo vessel. Thus every two years a manned and fuel producing cargo spacecraft is sent. This saves taking the added fuel with you for the return leg of the journey, and when they arrive at the Red Planet there is a space craft and habitat that is all ready to take the astronauts home, as soon as they arrive. If an emergency does occur and they are forced to leave suddenly, they can.

The book is fairly easy to read, and if you need the mechanics of his theories they are put on a separate page, at the end of each chapter.

This book will be available from shops from August at bookshops.

Asteroid.

It has been reported that an Asteroid is orbiting the Sun very close to the Earth. It is only 40 times the distance of the Moon. One Asteroid recently visited us just outside the Moon's orbit, passing extremely close to the Earth. (More in August Journal.)

President -- Phil Ainsworth. ■

MACARTHUR FAMILY STAR PARTY

A mammoth Star Party will be held at the UWS (Macarthur) on 26th July, commencing 6pm. MAS and two other societies will provide telescopes. A huge number of the public is expected to attend.

Dr Seth Shostak will be talking about SETI in Lecture Theatre 5.

Phil Ainsworth and Bob Bee will be presenting Solar System and Deep Space slide talks in Lecture Theatre 4.

MAS and other Societies will have stalls, and hot food and drinks will be on sale.

Why not bring the family for a great night of viewing and talks?

Telescope For Sale:

I spotted this advert. in an American Astronomy magazine:-

24" (600mm) f/3.8 Dobsonian. High Speed 'Go To' capability. LCD Auto Guider. Displays images on LCD screen.

Only US\$14,900 (shipping etc extra).

I'll take a dozen!

Bob Bee

From The Editor's Desk

It's been an interesting month.

Have you gotten out and explored the sky this month?

- * Notice Jupiter shining at -2.8 mag?
- * Venus looking like a flare at -3.9 mag?
- * Explored Scorpius using that brilliant map from the last Prime Focus?

This is the time of the year for it. The best time. Southern skies - winter style.

Independence House:

Phil, Eric and I travelled down to THAT State Forest near Berrima to meet with people from Sydney University's Alumni in their quaint Log Cabin. We had been invited to give a talk and show the sky through the telescopes. Well, the talk went off OK. The sky, however, was 100% cloud and rain. We were lucky anyone (10) turned up at all, considering most had to travel from North Sydney.

I had prepared a talk, with slides, on Deep Space. It was a lot of fun for me, and they were kind enough to say they enjoyed it too. Just as well, because it's the same talk I'll be giving at the Family Star Night on the 26th July. Put it down to practice. (Please come).

All in all, despite the disappointment of not being able to show them the wonders seen through telescopes, it was a fun evening and worth the trip. The meal they put on (with slashings of red wine) wasn't bad either. We got an open invite to come back when the stars are out.

David Malin Lecture:

I was fortunate to pick up a couple of free tickets to a lecture by David Malin at the Wesley Centre, Pitt Street, on 15th July.

Phil and I went along and were totally captivated by not only the beautiful slides projected on a full size screen but by the relaxed and informative lecture. But then it should have been relaxed - this is the man who took and developed the photos.

I have to confess that I took my copy of David's 'A View of The Universe' and was the first out the front to have it autographed.

The disquieting aspect of it all was that they were basically the same photos I had shown and discussed at Independence House. As Phil so kindly told me after - "He did it better than you". He'd jolly well want to - they were HIS pictures.

Bob Bee

Mystery Galaxy Winner.

I am very pleased to announce that one of our newest members, Kerry, was the first to contact me and correctly identify Issue 5's Mystery Galaxy.

WELL DONE KERRY!

The galaxy was of course...well, it was in Issue 3 if you'd cared to look...

M83, NGC5236, in Hydra.

A close second was Frank Kish.

Well Done, Frank!