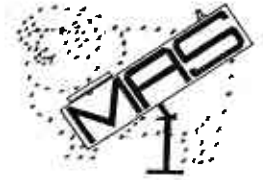


MACARTHUR ASTRONOMICAL SOCIETY Inc.

Journal



PRIME FOCUS

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President's Report

Hello there fellow keen Astronomers and welcome to our second meeting of the year. Last month Peter Druery gave some great insights into the challenging world of astrophotography. A lot of work went into his presentation and many of us now feel inspired to go where no photographer has gone before. Great job Peter.

Again this month we are most pleased that one of our own members, Robert Zindler has put his hand up to be our guest speaker. The subject of choice is his *Cosmology Theories* and I'm sure this will be of interest to many members.

It augers well for our club when we can draw on our own sources to provide for our guest speaking roles and I'm sure everyone will support our

members in their various presentations.

At the time of writing M.A.S. will be sending two of its committee members, John Koster and John Rombi to the meeting of the Planning Committee of the International Astronomical Union at the Sydney Observatory. I can't tell you much except that in July 2003 the I.A.U will be staging its next general assembly in Sydney, many well known overseas Astronomers will be present and the opportunity to join with other organisations at this early stage of planning is very exciting indeed.

Membership Fees:

Yes folks it's that time again, **FEES ARE DUE NOW!!!**. As per our normal arrangements you have until the end of March at the absolute latest to renew. For our newer members if you have paid since October 2000

you are covered for this year till March 2002. Please pay promptly as this enables us to plan our expenditures for the coming year.

Other Matters:

Our contact with the Wollongong Amateur Astronomy Club continues and they have enquired if we would like to send down some guest speakers to address their meetings. If you would like to make use of this opportunity please let me know as soon as possible. The W.A.A.C's and M.A.S. share many common objectives and I'm sure they would welcome our assistance, so don't be shy.

What silly weather we're having, scorching heat, then cloud and rain. The planned observing night on Sat 27th January was over before it began, it was a lost cause if ever I saw one! Remember to phone me if it looks doubtful as we have recently cancelled

some observing nights if it looks really bad.

You may have noticed that Fletchers Fotografics have opened a store at Macarthur Square Campbelltown. I've made contact with David Reed who manages the store and I've given him some supplies of our information sheet. Fletchers Fotografics have recently sold telescopes to some very keen Macarthur residents who no doubt will be looking for a local organisation like us to assist them. At a suitable time and probably on a Saturday, M.A.S. will attend the store and assist with enquires from the public. I have no firm details but I'm sure a couple of us would be free to help out as this would be an excellent way to promote our Society. Also in the promotions department the Bicentennial Art Gallery has floated the idea to me of a small public viewing night to be held in the newly opened section beside the tea gardens. For the moment there are no details available.

So there you have it! some great events coming up, combined with the observatory program, our excellent guest speakers and our own field nights, it will make the next few months a most busy and enjoyable time.

Regards, Noel Sharpe. ■



What's To See This Month?

February 18 - March 18, 2001

Clouds again!
Disappointing sight
Hiding the planets and stars each night.
Today clear sky and clouds did tussle and fight,
Deciding to show or hide Saturn and Jupiter in their wild ride,
Across the broad span of the Oaks dark sky,
But no clear win tonight!

Trivia question last month was; What distance from the surface of Saturn to the inner edge of first ring? Answer is 74,000 km. See below for this month's question.

Venus, Saturn and Jupiter are still interesting this month with **Venus** at its brightest -4.6 on the 22 Feb as it overtakes the Earth. Like a space ship passing with its face always to the Sun the bright disk is now less than half and growing dimmer. It will be gone by March 10 so get your telescope on it now to see the crescent disk grow slimmer and slimmer each night. At its best Venus is brighter than Sirius and can cast a shadow on the ground under dark skies, but not a lot happens as it remains in Pisces, before moving into the morning sky late next month.

Saturn and Jupiter are gradually growing further apart and still hanging around the house of the Seven

Sisters,. Did you know that there are really 300 sisters in the Pleiades group? Imagine the noise when they all talk at the same time!

A lovely line up will occur on the 1st March with Saturn and Jupiter and the ¼ Moon in the west. The next night Jupiter will be very close to the Moon. More line-ups with these three will occur near the end of March.

The **Moon** gets very friendly with the Beehive Cluster in Cancer on 7th March and with Regulus in Leo on the 8th, when it will also be at its closest to Earth. An almost Full Moon will be large and bright.

Mars has returned to our view in Libra. On the 22nd Feb it is in the claws of Scorpius, very close to Beta Scorpii (Graffias) which is a bright double star. This will be a good telescope view through 26mm eyepiece (or photo-opp) about 12 am. . March 1 you will find the god of war within 6° of his rival - Antares and both will be fierce and bright.

Uranus and Neptune are for the early birds. Still in Capricornus, they are gradually drawing closer to each other. Uranus will have a close approach to Mercury just before sunrise on 10th March and will be just 0.3° from Neptune on the 11th.

Comet 24P/Schaumasse brightens from 13th to 11th mag as it comes into the

evening sky. By mid March it will be very close to the centre of the 300 sisters (Pleiades). **McNaught Hartley** (last month) has faded to 9th mag as it slides towards the horizon in Hercules

Messier Objects

Orion's Nebulae. Yes there is more than one. Because of its position Orion is visible to every person on the Earth at some time. However I like to think we see The Giant Hunter better, even if he is upside down! The bright flower on Orion's sword is of course eye catching **M42**. Sir William Herschel in 1774, chose this object as No 1 to be observed through his first serviceable telescope after 200 failures. It was also the first nebula to be successfully photographed by Henry Draper in 1880. But Charles Messier was not the first person to notice and record this cosmic wonder.

Trivia Question!

Who was the first person in 1610 to notice the Great Nebula in Orion? Answer next month.



(M42 – In Infrared)

The soft greenish glow of **M42** is noticeable by anyone that looks to the sky. Have a look at the **Trapezium**, 4 or 6 stars in the centre of the brightest part of the nebula. Infrared radiation observation (previous column) has detected stars being created right now, but invisible to visible light because hidden by clouds of dust.

Close by right next to the dark gap called '**The Fish's Mouth**' **M43** is part of the same bright hydrogen cloud connected by tendrils of visible gas but much fainter and smaller.

The last of Messier's nebulae in Orion is **M78**. This elusive fuzz finally surrendered to my own search only in January this year. M78 lies about 2.5° north of Zeta in the belt of Orion and is a cloud of gas surrounding two 10th mag stars. "Like two bloodless eyes peering back at you through a frosty window" is how one observer put it. It looked like the mask of the Phantom of the Opera to me. From our perspective Zeta is the higher or most southerly of the belt stars.

Let's leave Orion – The Giant Hunter and go north to the **Constellation of the Month**

Bright flashing fiery light of Capella in the north and one of the horns of Taurus (El Nath) in the south mark out **Auriga The Charioteer**, which is portrayed carrying a she goat on his shoulder and two or three kids on his arm.

Capella has been called the 'she-goat star' since Roman times. Legend claims that Auriga is Erechtheus, son of the Roman god Vulcan and his wife Minerva, who invented a chariot to move his crippled body about.

Objects of Interest

(α Aur) **Capella** - is one of my favourite stars because it is never still. Its coruscating light twinkles and flashes yellow, green, blue, white and orange red. In fact observers down the ages have disagreed about the colour. It is similar to our sun but a binary double and 250 times larger, it is 35 light years away.

The next brightest star is to the right of Capella, called **Menkalinin**, 2.1 mag and also a multi star. A faint planetary nebula **IC2149** is just 1° north at 11.0 mag.

M36 – A bright open cluster with pronounced arms of 8th mag stars. A bit like a high-tension electricity pylon, I call him. "Pylon Man". M36 can be found 6-8° directly north of El Nath. On your way you will pass a rich open cluster **NGC1893** of 60 stars with nebulosity at 7.5 mag.



(M36)

M37 – A very large rich open cluster about the size of the moon in 26 mm eyepiece. Misty in appearance.

M38 – Smaller than 37 but rich in stars. Some people say it has the shape of the Greek letter pi (π) Less than $\frac{1}{2}^\circ$ south you will see **NGC1907** an open cluster of 30 stars with nebulosity at 8.2 mag



(M38)

Enjoy your ride with The Charioteer and...

Good seeing IC

Borrowing MacDob

The Society's own telescope, a 6" Dobsonian, is available for loan to members. It is easy to transport, set up and use. If you would like to borrow MacDob for a month, speak to Phil Ainsworth who is its custodian. Though there is no hiring fee, members are invited to make a donation of their choice which will go towards the upkeep and upgrade of MacDob

Official MAS Program

24 Feb – Dark site at Airfield

3 Mar – Observ. Public Night

19 Mar – Monday General MAS Meeting

24 Mar – Dark site at Airfield

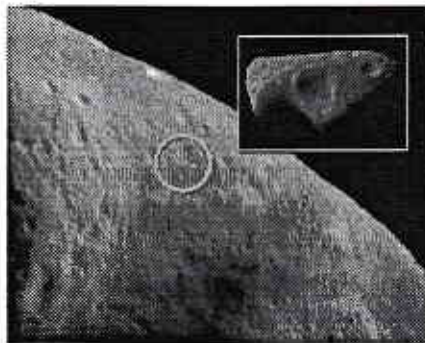
16 Apr – Monday General MAS Meeting (Plus AGM)

21 Apr – Dark site at Airfield

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

Probe lands on Eros



Space history was made on 12th Feb 2001 when a space probe **NEAR Shoemaker** was landed on the asteroid Eros, taking photos of the boulder strewn surface til the end. A nice bit of remote control – signs of a misspent youth at an video arcade?

Onya NASA! ■

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The following are the coordinators of these special interests in particular fields

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NOVICE/INTERMEDIATE

Noel Sharpe

ADVANCED: Peter Druery.

ASTROPHOTOGRAPHY:

NOVICE: Noel Sharpe

ADVANCED: Peter Druery

PLANET ADVICE:

Phil Ainsworth

Trivia question: What are, and where would you find, the Keck Twins?

Coming Guest Speakers:

March – Greenwich
(Dick Everett)

April – Optical SETI
(Dr Ragbir Bhathal)