



Volume 15, Issue 9

September 2010

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President's Report: John Rombi

A Spring time welcome, to our September edition of "Prime Focus"

Last month, Dr Max Spolaor (AAO, Instrument Specialist) was our guest speaker; his presentation on "The Chemical Evolution of Galaxies" had our room full of astronomers glued to their seats. This was Max's first visit to MAS and I hope it won't be his last. Unlike our other speakers, Max started out his astronomical life as "One of us".....a wide eyed youngster "looking" through an eyepiece!!

2010 Speakers

October's meeting will host our member Bob Bee; his presentation will be on his trip through Europe's areas of astronomical interest, with Fred Watson & David Malin.

Our Webmaster, Chris Malikoff will take us for a refresher course through our Website. If you have any difficulties in the use of the site, please bring your concerns to the meeting.

November: will have Prof Bryan Gaensler's first visit since becoming our Patron. His presentation will be on "The Square Kilometre Array" the decision on the site for this facility will be made by 2012. A former member of Bryan's team Dr Lisa Harvey-Smith (also a speaker for MAS) has recently taken over the position of **(CSIRO SKA Project Scientist A.T.N.F)**. I have been in communication with Lisa recently offering her MAS's support for The SKA to be situated in Australia and this is a copy of her reply to me:

Dear John,

Many thanks for conveying the support of MAS for the Australian SKA Project. It is great to get very active astronomical societies such as yours supporting our bid for the SKA, as well as the technological developments being driven by CSIRO and others for this amazing project. The SKA is not only an incredible tool for astronomical discovery, but also drives technological developments in

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MAS Dates 2010

<u>September 2010</u>		30/10/10	Stargard
04/9/10	Stargard		
11/9/10	The Forest		<u>November 2010</u>
20/9/10	General Meeting	06/11/10	The Forest
		15/11/10	General Meeting
<u>October 2010</u>			
02/10/10	Stargard		<u>December 2010</u>
4-9/10/10	Magnitude: C'town Art Gallery	04/12/10	The Forest
09/10/10	The Forest	11/12/10	Stargard
18/10/10	General Meeting		



President's Report:

John Rombi

signal transportation, information and computing technology, renewable energy and the first generation of smart radio cameras. I hope to give you the latest on all these aspects of the project when I give my talk next year.

I am keenly aware that astronomical societies such as yours play an important role in public education and outreach. If I can supply you with any information on ASKAP or the SKA, I would be very happy to do so. Please accept my best wishes to all your members.

Best regards,

Lisa

Lisa will be one of our speakers for next year.

Art Gallery, Campbelltown.

"Only just over two weeks to go"

On Saturday October 9th from 4.30pm, we will have renowned Astronomer & Public Speaker, David Reneke. His topic will be **"Secrets of the universe + 50 things you didn't know about the Moon landings"** followed by Dr David Malin, **"The invisible universe, making sense of the unseen"** as our keynote speaker; this will be open to the public and will be held in the main 185 seat auditorium. Seating will be a first come, first served. Our exhibition will be open Monday to Friday from 10.00am to 4.00pm. Saturday 10.00am to 8pm. We need volunteers to man our telescope display for these times. We will also need telescopes to place in our display, please consider this very important part of the event.

As always "many hands make light work" We have lone

access to the "Green Room" this area has all the facilities need for this week long event. Toilets, showers, kitchen, TV etc. everything needed to make it as comfortable as possible.

Without volunteers, this event WILL NOT succeed.

Please complete the poll that Chris Malikoff has assembled on the Forum.

As always check our website for ANY information concerning MAS activities.

Observing Nights

Stargard unfortunately for this month was clouded out.

I was unable to attend The Forest, but the skies were clear for the entire weekend!!

There were approx a dozen members taking advantage of the great conditions, and thankfully the extreme cold did not appear. Not that 2°C is warm!!

The Forest for October has been **cancelled** due to the presentation of "magnitude"

This Month

We have Dr Naomi McClure-Griffiths (ATNF) her presentation will be on **"What goes up, must come down in the Milky Way"** This is Naomi's first visit to MAS, so I know that you will make her feel very welcome.

Until next month,

Clear Skies, John Rombi.

Secretary's Column:

Roger Powell

Last month, twenty-five excited MAS members and spouses headed off to Coonabarabran for a look at the AAO Observatory. Despite the coach being in need of new suspension, it was a great trip (eight hours each way) and I want to thank Tony Law for organising it so well and Lloyd Wright & Geoff Young for driving everyone there and back again safely.

Thanks also to John, who arranged through Professor Fred Watson for us to be provided with two very well informed tour guides. We were elated to view the massive 3.9 metre AAT telescope close up, it is a magnificent piece of engineering, housed in a massive dome that towers above the trees. We also visited the famous 1.2 metre UK Schmidt Telescope, which was the first telescope to go into operation on the site; and the more recent 2.3 metre telescope - neither of which are available for the general public to view. We were also able to visit other parts of the observatory where the general public do not go, including the control rooms for all three main telescopes. We also had a chat with one of the duty astronomers.

This was a very successful first trip away for the Society and already we are talking about doing a similar trip next year, maybe to one of the Australian National Telescope radio telescope sites at Narrabri or Parkes. Any other suggestions are welcome.

With the AAO trip over, your committee is now focusing it's attention on the **m a g n i t u d e** exhibition at the Campbelltown Arts Centre between 4th - 9th October. Like the AAO trip, this type of event is a 'first' for the Society and we could not do it without (a) the backing of Campbelltown Council; and (b) the professional expertise of Chris Malikoff, who is putting everything together for us. This display will interest all members as well as the general public and I can assure all members that you will not be disappointed when you see it. If you can assist us at the Arts Centre during the week long event, please make sure you let John know.

Our August guest speaker was Dr. Max Spolaor, who

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Secretary's Column:

Roger Powell

gave an interesting talk about his spectroscopic research into the metallicity of elliptical and lenticular galaxies. Max's study demonstrated that the amount of matter, other than hydrogen and helium, which is contained by stars in these older galaxies is proportional to the radial distance from the centre of each galaxy. Isn't it astonishing what astronomers can achieve these days with access to modern telescopic facilities!

Our list of great guest speakers continues again this month with the visit of Dr. Naomi-McLure-Griffiths, a galactic radio astronomer from the Australian National Telescope. Naomi was a finalist in the ABC *'Catalyst' People's Choice Awards Australian Museum Eureka Prizes: The Oscars of Australian science*. Having watched her on Catalyst, I have no doubt we are in for another fascinating talk, which will build on what Professor Geraint Lewis and others have told us about our gal-

axy recently.

Our website is currently just over two years old and last month recorded it's 100,000th hit. An average of around 3,800 hits per month is a fantastic achievement for a club of our size & type and it is not uncommon to see scores of visitors exploring it at any one time.

Finally, just another reminder that the committee would welcome any comments or suggestions on our current constitution, which is now under review. Please let Trevor, Tony or myself know as soon as possible if you have any ideas on improving this important MAS document. Whilst this project is on 'hold'

Uranus meets Jupiter

Bob Bee

For those of you who haven't seen the 'heads up' in Astronomy 2010, page 55, there is currently in process a very favourable pair of planetary oppositions happening in the same chunk of sky this week.

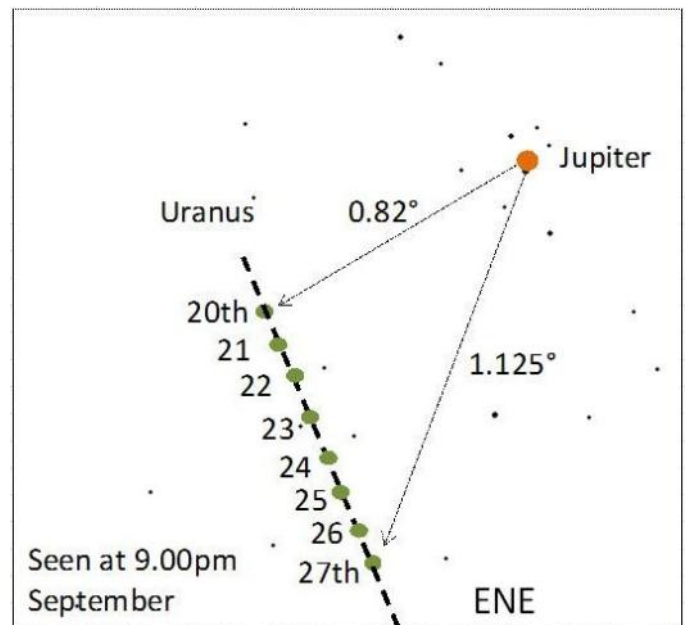
Jupiter will be at a very favourable opposition on 21st September (Tuesday) when it will be at magnitude -2.9 and a whopping angular size of 49.9". This is obviously providing excellent views of Jupiter's disc as well as its Galilean moons.

However, the extra bonus is that Uranus is also coming to opposition only five hours after Jupiter, on 22nd September. It will be at magnitude 5.7 and have an angular size of 3.7".

This is extra interesting as they are visible, from 20th to 24th September, within 1° of each other. Theoretically, on a dark night, you should be able to see both together with the naked eye. After that they drift apart slowly but are still within 1.5° on 3rd October. That means you definitely will be able to enjoy both in the same field of view with binoculars and also, in much greater detail, including the Galilean moons, within a low power field of view in your telescope. Uranus should appear as a small bright green disc in a telescope. No prizes for what guessing Jupiter will look like.

I have attempted to show the relative positions of Jupiter and Uranus for the period from 20th – 27th September. I emphasise relative as the simple diagram doesn't reflect the movement of Jupiter against the background, just Uranus, and its positions on each night between 20th and 27th are approximations only. Since the identities of

Jupiter and Uranus will be obvious in your scopes, that shouldn't be a problem. Jupiter will be about 30° above the East-NE horizon at approx 9pm, obviously climbing to more favourable heights after that.



Another bonus is the Galilean moons will be performing their own version of 'Dancing with the Stars' and you'll be able to watch that from night to night as you enjoy the two planets 'gas bagging'. So enjoy this happy conjunction and hopefully the clever snappers in our club will have their cameras working overtime to capture it.



It Is Amazing Who You Meet on the Moon Pt 8 Lunar Crater Flammarion David M Jones

It is by the scientific method alone that we may make progress in the search for truth. Religious belief must not take the place of impartial analysis. We must be constantly on our guard against illusions. **Camille Flammarion** (1842-1925)



Lunar crater Flammarion lies on the south edge of Sinus Medii (Latin – Bay of the Centre); located between crater Mösting to the northwest and Herschel to the southeast. The bowl-shaped Mösting A intersects the western rim of crater Flammarion. (Encyclopedia, 2009)

The following tribute was published in the TIME magazine, on the 15th of July, 1925, just five weeks after Flammarion's death. It is a fitting eulogy to the life and death of Nicolas Camille Flammarion:

Stooping among his instruments in a lonely observatory at Juvisy, France, Camille Flammarion, 83, famed French astronomer, felt a chill in his side, and slipped to the floor. Many hours later, footsteps rang on the stone stairway. The servant who entered found Flammarion where he had fallen. One arm was twisted under his body. His face, scribbled with an extraordinary network of fine lines, was curiously disordered under the bush of his white hair. He was dead.

When Camille Flammarion was 9, he saw an eclipse. It was not the spectacle of the little moon lying like a black penny in the huge dead eye of the sun that astounded him; that, he is said to have remarked, was "a simple piece of mummery", (theatrical performance) duplicable with a candle and a franc piece." But the thing that amazed him was that men, by means of charts, dials and tubes to peer through, had calculated to an instant the occurrence of this entertainment. He began to study Astronomy.

When, at 16, he entered the Paris Observatory, he had already written a volume on cosmography. With Aeronaut Godard he ascended in a balloon to observe the heavens, wrote his researches in books that surpassed in popularity the works of Anatole France, and Pierre Loti. He founded the French Astronomical Society, and edited a monthly review, L'Astronomie.

In the War of 1870, (Franco-Prussian War) he served France, spying upon the Prussian troops with his long telescope. An admirer, one M. Meret, presented him with a country place at Juvisy, where

he built an observatory, passed his time peering at the planet Mars and collecting ghost stories. Never a great scientist, he was still mumbling about the probable inhabitability of Mars while his colleagues were concerned with the atomic structures of stars not yet named; but he exploited with marvellous eloquence the romance of the stars.

Under the big tent top of heaven he, a circus barker, shouted the seductions of Venus, the deformities of Mercury, the spots, habits, abilities of Uranus, Jupiter, Neptune. He was the jongleur of the Milky Way. (TIME, 1925) (Jongleur = a wandering minstrel or poet)

The eccentric, Flammarion, was much more than 'just another recreational astronomer'; he was renowned as a prolific writer, and a believer in *extreme pluralism*. He fervently believed the universe harboured a vast array of life – including intelligent life. He considered 'mankind' to be a citizen of the stars – living and dying through progressive stages on any number of planets while progressing and developing 'his' soul. He held a deep interest in spiritualism and reincarnation – even publishing books related to these subjects; amongst them – 'Death and its Mystery' (3 vols – 1920-21). He held an enthusiastic belief that Mars was inhabited by intelligent life – intelligent life that far outstripped that which existed on this planet Earth; moreover, he believed the colour exhibited by planet Mars could be due to its indigenous vegetation. In one of his seventy published books - *La Planète Mars* - he supported the existence of the (now infamous) Martian canals – built, he alleged, by an advanced civilisation.

The first edition of **Messier Objects**, published in 1771, numbered just 45 objects – M1 to M45. That original list grew to 103 objects; subsequent additions were made over time by other astronomers. Camille Flammarion made the first of these additions in 1921, when he added M104, after finding Messier's original personal copy of his (Messier's) Catalogue. The incident is related in Flammarion's own words...

"I still had time to saunter sometimes for half an hour along the quays, and notably to stop by in front of the boxes of the booksellers fully filled, opposite of the Institute, where I had been able to a long time before (1858 to 1862), the old yearbooks of the Bureau des Longitudes, since their origin in 1795, at a price of about ten to twenty centimes; and I had the lucky chance to encounter, between the old antiques, the manuscript of the astronomer Messier, containing his catalogued discoveries of 103 nebulae and star clusters, designated for the Connoissance des Temps of 1783 and 1784, with



It Is Amazing Who You Meet on the Moon Pt 8 Lunar Crater Flammarion David M Jones

his detailed remarks on each observation - sic." (Frommert, 2010)

To add to his accolades – perhaps a note for a trivia night – whilst not officially adopted for many decades, Flammarion was the first to put forward the names *Triton* and *Amalthea* for the moons of Neptune and Jupiter, respectively.

In the course of researching this article, I came across a translation of one of Flammarion's most popular astronomy books, *Astronomy for Amateurs* (1904), in which he describes how he felt about astronomy and how, indeed, such accurate observations were made in those early years. His introduction begins thus...

The Science of Astronomy is sublime and beautiful. Noble, elevating, consoling, divine, it gives us wings, and bears us through Infinitude. In these ethereal regions all is pure, luminous and splendid. Dreams of the ideal, even of the Inaccessible, weave their subtle spells upon us. The imagination soars aloft, and aspires to the sources of Eternal Beauty...

...Figures, and naught but figures, would not be entertaining, even to those most desirous of instruction. Let the reader take courage! We do not propose that he shall decipher the hieroglyphics of algebra and geometry. Perish the thought! For the rest, figures are but scaffolding, the method, and do not exist in Nature. The great Book of the Heavens is open to all eyes...

On pluralism - *According to all the probabilities, universal life is distributed there as well as here, and has sown the germ of intelligence upon those distant worlds that we divine in the vicinity of the innumerable suns that plow (sic) the ether, for everything upon the Earth tends to show us that Life is the goal of Nature...Our globe is no exception in the Universe. As we have seen, it is one of the celestial orbs, nourished, warmed, lighted, quickened by the Sun, which in its turn again is but a star.*

And on observation - *On a summer's night, when we look towards the starry sky, we are at first aware only of a number of shining specks. The stars seem to be scattered almost accidentally through Space; they are so numerous and so close to one another that it would appear rash to attempt to name them separately. Yet some of the brighter ones particularly attract and excite our attention. After a little observation we notice certain regularity in the arrangement of these distant suns, and take*

pleasure in drawing imaginary figures round the celestial groups...That is what the ancients did from a practical point of view. In order to guide themselves across the trackless ocean, the earliest Phoenician navigators noted certain fixed bearings in the sky, by which they mapped out their routes...
(Camille Flammarion, 1904)

These then are the echoes bequeathed to us of the man - Nicolas Camille Flammarion; the words of a passionate man. The man 'TIME' fittingly dubbed the jongleur of the Milky Way. Named in his honour are the Martian crater 'Flammarion' – and the lunar crater 'Flammarion'.

References:

Camille Flammarion. (1904). *Astronomy for Amateurs*. (Kindle Translation) New York and London: D. Appleton & Company. Encyclopedia, W. T. F. (2009, August 30). *Flammarion (lunar crater)*. Retrieved August 23, 2010, from Wikipedia: [http://en.wikipedia.org/wiki/Flammarion_\(lunar_crater\)](http://en.wikipedia.org/wiki/Flammarion_(lunar_crater)). Encyclopedia, W. T. F. (2010, July 4). *Messier object*. Retrieved August 26, 2010, from Wikipedia: http://en.wikipedia.org/wiki/Messier_object.

Frommert, H. (2010, May 17). *Flammarion and messier's personal copy of his catalog*. Retrieved August 25, 2010, from The Messier Catalog: <http://seds.org/messier/xtra/history/fl-m-cat.html#flammarion1917>.

Jones, K. G. (1991). *Nicolas Camille Flammarion (Feb 26, 1826 - June 3 1925)*. Retrieved August 26, 2010, from Cambridge University Press: <http://seds.org/messier/xtra/Bios/flammarion.html>. TIME, (1925, June 15).

Science: Flammarion. *TIME*(June 1925). Retrieved August 24, 2010, from <http://www.time.com/time/magazine/article/0,9171,720426,00.html>. Wikipedia the Free Encyclopedia. (2010, August 4). *Camille Flammarion*. Retrieved 08/26/2010, from Wikipedia: http://en.wikipedia.org/wiki/Camille_Flammarion#Biography.

Prime Focus Article Submission

Deadline for article submissions for the next edition of Prime Focus is

Monday 11th October 2010

All Articles can be submitted via email editor@macastro.org.au
Or via snail mail to the MAS Postal address

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FOR SUBMISSIONS!!!**