



# **COFFS HARBOUR ASTRONOMICAL SOCIETY INCORPORATED**

## **MINUTES AND NOTICE OF MEETING**

### **MINUTES OF JUNE MONTHLY MEETING HELD AT BOAMBEE HALL, MONDAY 4 JUNE 2012 AT 7:00pm.**

**PRESENT:** 9 members and 5 visitors.

**MEETING OPENED:** 7:01pm with President, Win Howard in the chair.

**APOLOGIES:** Peter Black, Jacque Connolly

**MINUTES OF LAST MEETING:** adopted as circulated by e-mail.

**BUSINESS ARISING FROM MINUTES:** nil

#### **CORRESPONDENCE:**

##### **IN:**

1. From Jacque Connolly advising that:
  - a. She will not be seeking re-election as Society Treasurer at the AGM in August.
  - b. Members' annual fees are due and payable at the July monthly meeting.
2. From Central West Astronomy Society advising that their 10<sup>th</sup> anniversary Astrofest will be held at Parkes on 14-15 July 2012. More details and registration for the event can be found at their website <http://www.cwas.org.au/>.

**OUT:** Nil

**GENERAL BUSINESS:** Nil

#### **REPORTS FROM MEMBERS:**

1. From Roberto Cornale.

- a. Roberto gave a presentation from his laptop which included:
  - i. Animation of the last solar eclipse.
  - ii. Animation of what tonight's partial lunar eclipse should look like.
  - iii. Animation of a new (to most of us) video showing the scale of the universe. The link to this is <http://htwins.net/scale2/> . Roberto added the information that: "It doesn't seem to work if you have the 64-bit version of Internet Explorer but should be fine, otherwise."
  - iv. A brief look at new (to most of us) astronomical software called Stellarium. This is freely downloaded at <http://www.stellarium.org/> . Roberto clearly likes IT stuff and recommends this software.
2. From Win Howard.
  - a. Regarding the partial eclipse of the moon tonight, the moon will begin to enter the full shadow of the earth at 8pm, will be at maximum eclipse at 9pm and out of the full shadow at 10pm.
  - b. Regarding the Transit of Venus this coming Wednesday, it will occur between local times of 8:15am and 2:45pm. Win will have his scope at the Coffs Community Village for anyone who wants to see it through a scope (weather permitting).
    - i. **Secretary's Note:** *at least four members took the opportunity to view the transit through Win's scope on the day. The weather was only partly cooperative but, if you were prepared to wait for the occasional break in the clouds, the view was outstanding. There were dozens of members of the public also there to look.*

**REPORTS FROM THE PRESIDENT: (this material is collected from the internet each month and presented in an edited form).**

1. On ABC recently there was an interesting program on Aboriginal Astronomy. It indicated that many Aboriginal Australians were careful observers of the sky. They used astronomy for navigation and many cultural purposes. They also saw a relationship between the heavenly bodies and earthly occurrences such as tides and seasons. They also had a number of different interpretations of eclipses. More details at <http://www.abc.net.au/science/articles/2011/06/15/3244593.htm> .
2. There is finally a decision on the location of the Square Kilometre Array (SKA) radio telescope facility. There has been intense competition between South Africa and Australasia. The decision was to share the facility. Details at <http://www.smh.com.au/technology/sci-tech/australia-and-south-africa-to-share-worlds-biggest-telescope-20120525-1zauh.html> .
3. Recent observations from NASA's WISE project have given us an updated estimate of the number and size of potentially hazardous asteroids. They now say there are between 3200 and 6200 that we might like to know about. We currently are aware of about 25% of these. Details at [http://science.nasa.gov/science-news/science-at-nasa/2012/16may\\_pha/](http://science.nasa.gov/science-news/science-at-nasa/2012/16may_pha/) .
4. Astronomers have found a planet orbiting a far-away star that is being vaporised as it orbits. It leaves a dust trail, a bit like a comet. The surface is estimated to be about 1800C, which is hot enough to melt and evaporate rocks into a very fine dust. Read more at

- <http://www.abc.net.au/science/articles/2012/05/23/3509472.htm> if you are interested.
5. It is believed that there are a number of objects in our galaxy that were planets but have been thrown out of their solar systems. These have been called “floating planets” and some people believe that they could be so prevalent that they could make up much of the “dark matter” believed to be somewhere. Some also say that under certain conditions life could exist on them. More at <http://www.abc.net.au/science/articles/2012/05/14/3502350.htm> .
  6. One of the asteroids is called Vesta. It has been visited by the spacecraft DAWN for the last ten months. Information from the visit indicates that it has an iron core, layers of rock and may have a magnetic field. These are more characteristic of a planet than an asteroid. There are many other interesting findings about this asteroid, which is the second largest one in the asteroid belt. Many are detailed at <http://www.abc.net.au/science/articles/2012/05/11/3500686.htm> . Some are suggesting that if Pluto is a dwarf planet then Vesta might be a baby planet.
  7. NASA’s Spitzer space telescope has detected light from an exoplanet. This is like “seeing” it. The planet is orbiting a star in Cancer called 55 Cancri, about 41 light years from us. More info at [http://www.nasa.gov/mission\\_pages/spitzer/news/spitzer20120508.html](http://www.nasa.gov/mission_pages/spitzer/news/spitzer20120508.html) .
  8. NASA is hoping to launch a new telescope this month that will examine high-energy X-rays to look for black holes and “near black holes” It will be called NuSTAR, which stands for Nuclear Spectroscopic Telescope Array. Details at mission website <http://www.nustar.caltech.edu/> . **Secretarys note:** *launch was successful and the telescope is now in orbit.*
  9. For those interested in predictions of the future: NASA has confirmed that calculations now make it almost certain that our galaxy and the Andromeda galaxy will collide in about four billion years. How good is that?

#### **CLOSURE AND FUTURE MEETING TIMES:**

The next monthly meeting will be Monday 2 July 2012, again at Boambee Hall at 7:00pm, all members and interested persons are encouraged to attend.

Meeting closed at 7:55pm, earlier than usual, to allow us to view the beginning of the umbral stage of the lunar eclipse.

#### **VIEWING**

The viewing was heavily biased towards the eclipse and the view of it was very good. Many stayed until the maximum eclipse at 9pm. The very full moon made looking at anything other than very bright objects quite difficult. A few of the visitors were quite interested in seeing the constellation that represented their astrological star sign. We also revisited the Southern Cross and how to determine south (and hence all other directions) from it. My impression was that all those present left the viewing session feeling that they had seen some very good astronomy.

Terry GILL  
Secretary