



COFFS HARBOUR ASTRONOMICAL SOCIETY INCORPORATED

MINUTES AND NOTICE OF MEETING

MINUTES OF DECEMBER MONTHLY MEETING HELD AT BOAMBEE HALL, MONDAY 3 DECEMBER 2012 AT 7:00pm.

PRESENT: 8 members and 1 visitor.

MEETING OPENED: 7:06 pm with President, Win Howard in the chair.

APOLOGIES: Peter Black, Gerjo van Rhijm

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

BUSINESS ARISING FROM MINUTES: Nil

CORRESPONDENCE:

IN: From Mark Bolton, Chair of the Australian Astro Imaging Conference, inviting members to attend the conference which will be held in August 2013. Anyone interested can check their website at <http://www.aaic2013.com/> for details.

OUT: Nil

GENERAL BUSINESS: Nil

REPORTS FROM MEMBERS:

- 1) Terry Gill reported at length on his trip to Cairns to see the total solar eclipse. He also presented a short video he took of the event. The essence of the report was that despite very unfavourable weather and cloud the particular location chosen was a good one because the clouds parted about 10 seconds before totality and gave Terry an outstanding experience. This was enhanced by the nearby audience which included five highway patrol officers who stopped and watched the event through eclipse glasses and Terry's 60mm refractor (suitably filtered of course). Terry reported that

the media reports and various video accounts did not do justice to the event. The appearance of the sun and its corona during totality was so clear and sparkling that he felt like he should be hearing sparks. It was extremely dynamic and through the 60mm it looked even better. If the experience was so moving and memorable for someone with a basic understanding of what was occurring, one can only wonder at what must go through the minds of people who had no knowledge of eclipses and no idea it was going to occur. No wonder many in the past thought that it was the end of the world.

- 2) From Ian Veness and Win Howard: Both saw the partial eclipse from the Coffs Harbour area. Win was at a local school.
- 3) Roberto Cornale took some photos of the eclipse using a technique that was a bit unconventional. The camera has since recovered. (Terry added that one of the highway patrol officers held eclipse glasses in front his mobile phone and took some images. No idea how they turned out.
- 4) From Win Howard:
 - a) A brilliant supernova has been discovered on 27/10/2012 in Fornax in the galaxy NGC 1365. The supernova reached magnitude 11.9 and was visible in some telescopes.
 - b) There is a comet approaching that has the potential to be really good for viewing. It is called ISON. It appears that it will be a sungrazer. It will be some months before too much more is known about it. Initial report at <http://downersgrove.patch.com/articles/new-comet-ison-could-make-skywatchers-year-in-2013-b6fea046> .
- 5) From Frank Kennedy: The boardwalk or footbridge at Urunga offers a surprisingly good sky that is much darker than in Urunga town. Frank reports that you do not have to walk very far along it to really notice the difference, particularly for the eastern and southern parts of the sky.

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

1. The Kepler mission which is primarily looking for exoplanets has completed its time allotted for that job. It has been very successful with around 2300 possible discoveries, over 100 of which have been confirmed so far as exoplanets. With such a successful 3.5 years it is not surprising that NASA has funded a 3.5 year extension.
2. A complex system of planets has been found orbiting star HD 40307 (an orange, main sequence star about 42LY away in the constellation of Pictor in the deep south). One of these planets is similar to earth in some ways and is in the “habitable zone” which makes it even more interesting to astronomers. This planet is called HD 40307g and appears to be tidally locked to its star (showing the same face to the star like our moon does to us). A small amount of detail on the planet is available at http://en.wikipedia.org/wiki/HD_40307_g .
3. There are reports in the media of the discovery of a planet with no star. They call it an “orphan planet”. There have been reports of these since about 1990. It seems sensible that there would be events that would lead to a planet being ejected from its solar system. However, it was made very clear in 2006 when Pluto was

- demoted from planet status that the definition of a planet includes the fact that it is orbiting a star. Once the planet is ejected and not orbiting a star it cannot be correctly called a planet. Suggested names for these objects include “planetary mass object” and “planemo”.
4. Yet again astronomers have discovered a galaxy that sets a new record as the furthest from earth. This galaxy has been named MACS0647-JD and is 13.3 billion light years away. Details and a very uninspiring image at <http://en.wikipedia.org/wiki/MACS0647-JD> .
 5. Astronomers have compiled a map of how the universe was 11 billion years ago. This is a time period known colloquially as the adolescence of the universe, being the time when expansion started to slow before dark energy rekindled the expansion. 63 scientists from 9 countries were involved in the compilation. Details at <http://www.reuters.com/article/2012/11/13/us-space-universe-map-idUSBRE8AC00420121113> .
 6. Sunspots have long been used as an indication of solar activity and the solar cycle. A recent study suggests that this might not be a valid assumption. See <http://www.abc.net.au/science/articles/2012/11/26/3638776.htm> for more information.
 7. Another record may have been broken. A new black hole has been discovered that appears to be the biggest ever studied. The Herald article on this is at <http://www.smh.com.au/technology/sci-tech/recordbreaking-black-hole-found-20121129-2ail4.html> .
 8. Readers will recall that there is ice in the deep craters near the poles of the moon. It is now thought that there is also ice in similar places on Mercury. Messenger space probe has confirmed that water ice is there in large quantities. More at <http://www.reuters.com/article/2012/12/03/us-space-mercury-idUSBRE8AS17F20121203> .

CLOSURE AND FUTURE MEETING TIMES:

The next monthly meeting will be Monday 4 February 2013, again at Boambee Hall at 7:00pm, all members and interested persons are encouraged to attend.

Meeting closed at 8:15pm.

VIEWING

The night was a typical one for Coffs. Storm and rain with full cloud until we all got home.

Terry GILL
Secretary