COFFS HARBOUR ASTRONOMICAL SOCIETY INCORPORATED

MINUTES AND NOTICE OF MEETING

MINUTES OF MARCH 2013 MONTHLY MEETING HELD AT BOAMBEE HALL, MONDAY 4 MARCH 2013 AT 7:00pm.

PRESENT: 12 members. Unusually there were no non-members present at the meeting.

MEETING OPENED: 7:03pm with President, Win Howard in the chair.

APOLOGIES: Camilla and Raven Whaitari.

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

BUSINESS ARISING FROM MINUTES: nil

CORRESPONDENCE:

IN:

1. From Dr Chris Onken from Mount Stromlo Research (by email) re: a contest to find a target for the Gemini telescope to study. Details of this at http://ausgo.aao.gov.au/contest/ .
2. From member Roy Derrett (by cutting from a paper): re free university courses available from not-for-profit universities, on-line program associated with MIT and two other unis in USA. Details at https://www.edx.org/ .

OUT: Nil

GENERAL BUSINESS: nil

REPORTS FROM MEMBERS:

1) From Terry Gill: Terry was planning to observe the close flyby of the asteroid on 15 February. He went to reasonable length in preparation with co-ordinates programmed in his scope each 30 minutes from 2am till dawn. The scope was set-up and aligned shortly

after dark but it was clear that cloud and rain were coming for at least part of the night. At 9:30pm Terry set the scope on the south celestial pole so that its tracking function would allow it to not move and returned each 30 minutes from 2am till about 5am. Unfortunately the rain and cloud did not lift and there was no opportunity to view the asteroid. It was a good test for the improvised telescope cover (a heavy duty drawstring garbage bag) which performed very well, keeping all water out.

2) From Win Howard:
   a) Win got a map of where the asteroid would be at various times from the heavens-above web site. He decided that 5am was the most convenient time to observe it due to its position within the eta Carinae nebula. Unfortunately he also found unfavourable weather at 5am.
   b) Re the unrelated meteor that exploded in the sky above Russia on the same night: Win explained why this was not related to the close flyby asteroid. They were going in different directions and the times did not match up.
   c) At this time Roy Derrett asked why some meteors explode before hitting the ground. This resulted in a detailed discussion and explanation. Win explained that there were a number of contributing factors including what the meteor is made of. Those with a conglomerate type construction often explode very violently. Also included in this discussion was the television show, "*Meterite Men"* on channel ONE and the Bathurst Observatory that specialises on meteorites. They can identify them and have a number of services available related to meteorites. More detail at their website http://www.bathurstobservatory.com.au/ .
   d) Comet PANSTARRS will be at its maximum brightness over the next few days. It can be seen low in the western sky shortly after dark.
   e) Another supernova has just been found in a galaxy in the southern sky. Details are sketchy at the moment. Win will report in more detail at a future meeting.

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

1. Scientists studying the asteroid impact that ended the dinosaurs have a more accurate time for the impact than before. One of the interesting facts to come from this is that the other evidence indicates that after the impact it took about 32000 years for the dinosaurs to disappear completely. It appears that the extinctions took some time rather than an almost immediate obliteration as was thought may be the case.
2. The meteor/asteroid that exploded over Russia has been very well covered in the media. Over 1000 were hurt, including over 200 children. This rock was estimated at about 15m in diameter and was the largest known since the Tunguska event in 1908.
3. There is a contest to name the last two discovered moons of Pluto. These were found in 2011 and 2012 and have been given the temporary names of P4 and P5. Those interested can find out more at http://www.plutorocks.com/ . It appears that voting has now ended in this contest.
4. A massive but ancient asteroid impact crater has been found in the far north-eastern corner of South Australia. The asteroid causing this has been estimated at about 20km wide and struck us about 298-360 million years ago. The reason that

the large crater has not been found previously is that it is buried under four kilometres of sediment. It is quite likely that this impact is related to three or four other large impact craters of similar age. It is also likely that these impacts are related to the "Late Devonian Mass Extinction Event", also of the same time period.

5. One of the many things scientists are looking for is the oldest star in the universe. A new candidate for this title is HD 140283, a seventh magnitude star in the constellation Libra. It is believed that this star is well over 13 billion years old. More details at http://en.wikipedia.org/wiki/HD_140283 .
6. Apollo moon rocks had no detectable moisture in them when they got back to earth. Now some of them are being found to contain traces of moisture. It is believed that this is due to more sensitive detection methods rather than contamination on earth. See http://www.scientificamerican.com/article.cfm?id=apollo-moon-rocks-challenge for more information.
7. It is thought that most of the planets were not formed in the same orbit they now occupy and that various forces and events caused them to migrate. Recent study indicates that this is not so for Saturn, which appears to be in almost the identical orbit that it was in when it was formed. Details at http://www.abc.net.au/science/articles/2013/02/27/3695497.htm .
8. We often hear about large telescopes and what they can do. Unusually, we have an article about a pair of small telescopes (each weighing less than 7kg and being around 20cm) having been launched. These are the BRITE project which will study the brightness of some of the brightest stars and look for variations in their brightness. See http://www.skyandtelescope.com/news/Tiny-Telescopes-Launch-193345761.html for more.

CLOSURE AND FUTURE MEETING TIMES:

The next monthly meeting will be Monday 1 April, again at Boambee Hall at 7:00pm, all members and interested persons are encouraged to attend. There was some discussion about changing this meeting date, due to it being April Fool's Day, Easter Monday, public holiday, etc. It was decided to leave it on that night.

NOTE: THIS IS NOT AN APRIL FOOL JOKE; THE MEETING REALLY IS ON 1 APRIL. IT IS!!!

Meeting closed at 8:58pm.

VIEWING

The full cloud cover that has been a major feature of the Coffs Harbour area for over a week kept up its good work and we were again unable to see any heavenly body over a few hundred metres above the ground.

Terry GILL
Secretary