COFFS HARBOUR ASTRONOMICAL SOCIETY INCORPORATED

MINUTES AND NOTICE OF MEETING

MINUTES OF OCTOBER 2012 MONTHLY MEETING HELD AT BOAMBEE HALL, MONDAY 1 OCTOBER 2012 AT 7:00pm.

PRESENT: Five members. (Low attendance possibly due to being the Monday public holiday of the long weekend, combined with full cloud cover with no prospect of viewing the sky.)

MEETING OPENED: 7:15 pm with President, Win Howard in the chair.

APOLOGIES: Peter Black

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

BUSINESS ARISING FROM MINUTES: Nil

CORRESPONDENCE:

IN: From Quasar Publishing advising of discount prices available for bulk orders of *"Astronomy 2013"* book. Once again the virtues of this excellent publication were mentioned. At least two of those present said that they had organised this to be a regular Christmas present for them for some years.

OUT: Nil

GENERAL BUSINESS: Nil

REPORTS FROM MEMBERS:

1) From Win Howard:
   a) Saturn is now so close to the sun that it is effectively gone from view for a while.
   b) Jupiter is in excellent viewing position but is not rising until later each night.
   c) Daylight saving starts next week.

d) Win finds that he is now doing most of his observing with his small telescope. He has changed the red dot spotter to a spotting scope and finds this to be a significant improvement.
e) Win advises that a nice observation exercise at this time of the year is to look at "The Blue Snowball Planetary", which is otherwise known as NGC 7662 and is in Andromeda not far from the Andromeda Galaxy. Then move to look at "The Blue Planetary" nebula in the Centaur, otherwise known as NGC 3918. Win then advises comparing and contrasting the two nebulae.

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

1. NASA's Dawn spacecraft has spent over a year studying the asteroid Vesta from a close orbit and has sent high resolution images to earth, along with a mountain of data about Vesta, which was recorded by its many instruments. DAWN has now fired up its ion thrusters and is on its way to the first asteroid ever discovered, Ceres. DAWN is expected to arrive near Ceres in February 2015. For those wanting more information the NASA home site for the DAWN mission is http://dawn.jpl.nasa.gov/ .
2. Monday 10 September heralded another apparent impact on Jupiter that was big enough to be observed by amateur astronomers on earth. The flash lasted only about two seconds and was observed live in a 12" Meade telescope in USA. This prompted other observers to look through their video recordings of that time and the event was confirmed with imagery.
3. More on exoplanets found to be orbiting double star systems. In 2011 such a planet was discovered around the double star system in Cygnus known as Kepler-47. This has now been extended to two separate planets in orbit around this double star system. It is much more difficult to work out a way that planets can form and orbit a multiple star system than a single star like our sun. The gravitational field in such a system would be very complex. More detail at the NASA site for the Kepler mission, particularly at http://www.nasa.gov/mission_pages/kepler/news/kepler-47.html .
4. Further on exoplanets and multiple star systems: Two planets have been discovered orbiting single stars like our sun, but with each of the stars being in a star cluster. This is in the very well-known cluster called Praescepe or "Beehive Cluster" in Cancer. This is a cluster of around a thousand stars that are believed to be in orbit around a common centre. Another interesting fact about these planets and this cluster is that it is a very young star system. These planets would be among the youngest known. The Beehive is easily observed with modest equipment. More detail on this discovery at http://www.space.com/17609-alien-planets-sun-like-stars-cluster.html .
5. The Opportunity rover on Mars has imaged some very unusual and tiny spheres on the surface of Mars. These are a bit similar to the spheres that the same rover imaged in 2004, which were nicknamed blueberries. These new spheres are much smaller, being around 2-3mm in diameter and appear to be made of different material. Details and image at http://science.nasa.gov/science-news/science-at-nasa/2012/14sep_mysteryspheres/ .

6. For those interested in Dark Energy there is a 570 million pixel camera attached to the 4m Victor M Blanco telescope in Chile currently taking images of 300 million galaxies. This will continue for the next five years. For details of how this incredible photo shoot is connected to Dark Energy please look at http://news.discovery.com/space/dark-energy-camera-sees-first-light-120920.html
7. A new comet has been discovered that could shine brighter that the full moon. The comet has been named C/2012 S1 (ISON) or just "Comet ISON" for short. It is still far too dim to be seen with most telescopes (Magnitude 18) but is predicted to brighten greatly over the coming months to be visible in binoculars around mid-2013. There will be much more on the progress of this comet over the coming months. It appears that the best places on earth to see it may be in the northern hemisphere. It is in the constellation of Cancer at the monent.
8. Another record has been broken by the Hubble Space Telescope. It has imaged a number of galaxies further away than ever before. This is a follow-up to its "Hubble Ultra Deep Field" image from 2003-4. The new image called "eXtreme Deep Field" or XDF for short is a combination of ten years of Hubble images of one small section of the sky (actually a small part of the Ultra Deep Field image). Details and the incredible image can be viewed at the appropriate NASA site http://www.nasa.gov/mission_pages/hubble/science/xdf.html .
9. There is research to suggest that a two-kilometre diameter asteroid impact two and a half million years ago created a massive tsunami and plunged the earth into a severe ice-age. It is believed that the impact was in the ocean about 1500km west of Chile. It could have had a major contribution to the rise of humans as the dominant species. Details at http://www.abc.net.au/science/articles/2012/09/20/3594552.htm .

CLOSURE AND FUTURE MEETING TIMES:
The next monthly meeting will be Monday 5 November, again at Boambee Hall at 7:00pm, all members and interested persons are encouraged to attend. This will be only eight days before the solar eclipse and it is anticipated that the eclipse will be mentioned in detail at the meeting.

Meeting closed at 8:43pm.

VIEWING
The sky was again fully clouded over giving no chance of seeing even the fullish moon.

Terry GILL
Secretary