



COFFS HARBOUR ASTRONOMICAL SOCIETY INCORPORATED

MINUTES AND NOTICE OF MEETING

MINUTES OF AUGUST MONTHLY MEETING AND ANNUAL GENERAL MEETING HELD AT BOAMBEE HALL, MONDAY 6 AUGUST 2012 AT 7:00pm.

PRESENT: 9 members.

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

APOLOGIES: Ian Veness, Peter Black, Roger Cooper

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

BUSINESS ARISING FROM MINUTES: Nil

CORRESPONDENCE:

IN:

1. From Peter Black: Generous donation and a letter updating the society on Peter's condition.
2. From Eagle Rock observatory in USA: The principal of this establishment, Mr Trevor Lewis, had a group of American astronomers out here on a tour and contacted Win Howard regarding advice on observing sites in the area. His website is interesting at <http://www.eaglerockobservatory.org/>

OUT: Nil

MATTERS ARISING FROM CORRESPONDENCE: That the Secretary write to Peter Black and thank him for his continued, generous financial support. The donation that Peter made (in addition to his annual subscription) amounts to half of the hall hire for the year where we hold our meetings. Carried unanimously.

GENERAL BUSINESS: Nil

ELECTIONS:

The President declared all positions vacant and invited Brett Connolly to take the chair during the election for President. The following officers were elected for the next year:

President:	Win Howard
Vice President:	(SEE NOTE BELOW)
Secretary:	Terry Gill
Treasurer:	Gerjo van Rhijn
Auditor:	Helen Squires or Jacquie Connolly (either to do)

NOTE: There were no nominations for the position of Vice President. Members present unanimously supported the proposal that Peter Black remain in this position (unless he disagrees) pending his return to better health. It was agreed that the Secretary should include this in his letter of thanks to Peter.

REPORTS FROM MEMBERS:

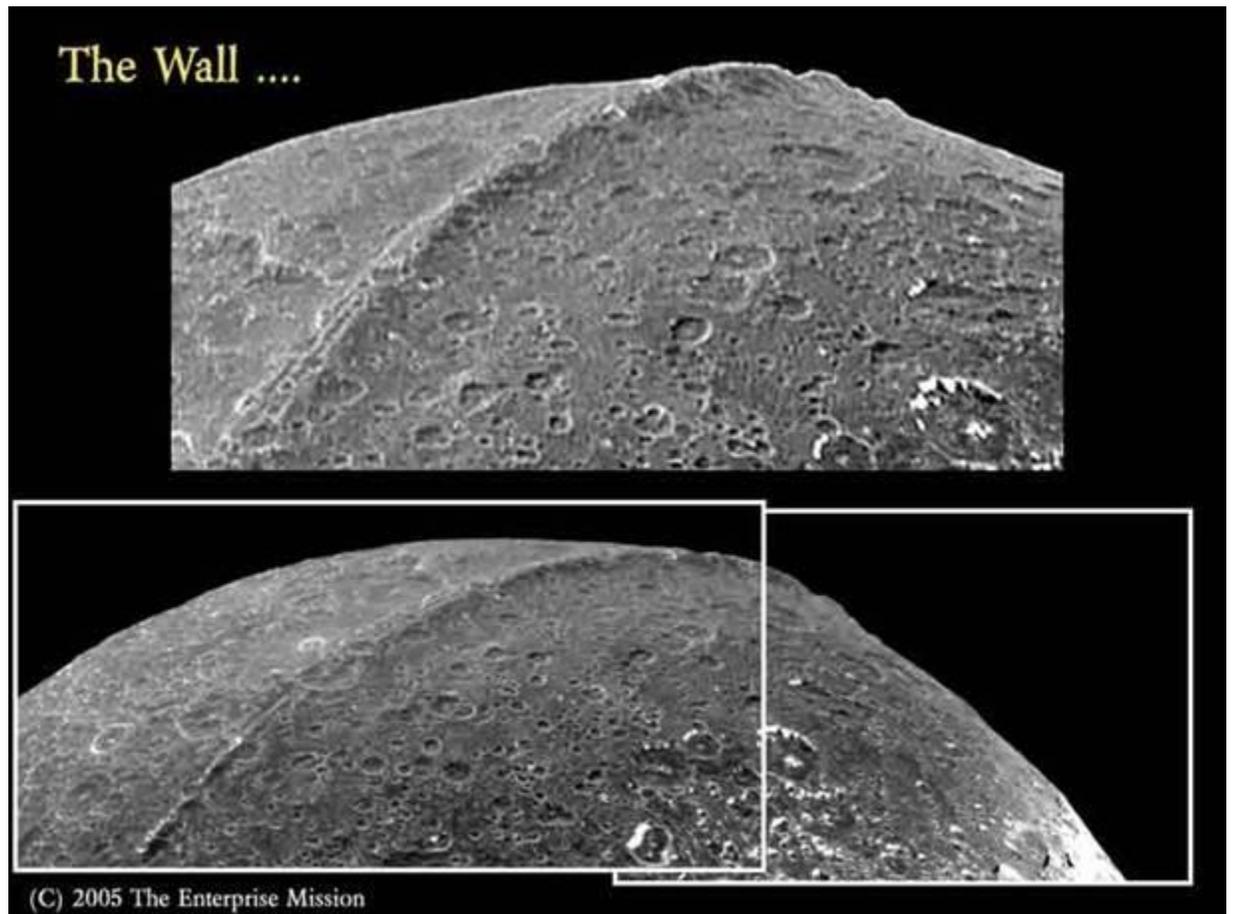
- 1) From Camilla Whaitiri: Last Friday night (3 August) about 7:30pm Camilla saw a shooting star. It was a particularly bright and long lasting one. Detailed questioning from Terry Gill indicated that it was probably the same meteor that he had seen in the company of his 26 year old daughter who had never seen a meteor before despite years of looking. Terry was going to report the same meteor to the meeting.
- 2) From Win Howard:
 - a) Win has been given a copy of a DVD of proceedings of the 2010 Amateur Astronomers' Conference in Canberra. This contains some of the lectures presented at the conference. This DVD is available for members to look at should they wish.
 - b) Last week Win took his small reflector telescope out for a look around and was rewarded by an excellent viewing of the International Space Station as it passed overhead.

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

1. NASA's Curiosity rover has landed successfully on Mars at 3:33pm our time today. This is the 44th attempt at a Mars landing. Of the 44 attempts this makes only the 15th that has succeeded. Previous attempts have come from USA, USSR, China, Japan and the European Space Agency. There are a great number of sites to follow this mission but the NASA site at http://www.nasa.gov/mission_pages/msl/index.html is one of the best.
2. There has often been a bit of a problem explaining why the surface of the sun is about 5500C but the outer atmosphere or corona can reach temperatures of around 2000000C. Normally it is expected that temperature would rise closer to the centre. The latest possible explanation is that magnetic "super tornadoes" cause superheated plasma in the atmosphere causing the temperature to rise. More information at <http://www.abc.net.au/science/articles/2012/06/28/3534151.htm> .

3. As reported in the minutes of the last meeting, it appears that the elusive Higgs boson (sometimes called the god particle) has been found. This is potentially one of the great discoveries in Physics. More detail at http://en.wikipedia.org/wiki/Higgs_boson and the official press release from CERN at <http://press.web.cern.ch/press/PressReleases/Releases2012/PR17.12E.html> .
4. Pluto has a fifth moon discovered. Hubble telescope has found a tiny moon orbiting Pluto. This discovery was announced on 11 July 2012. So far it is only called P5 or S2012(134340). It looks like it is irregular in shape and about 6 to 15 miles in diameter. Its orbit is about 29000 miles from Pluto. More for the New Horizons probe to look at when it gets there in 2015.
5. Further on the previously mentioned question of, “Which came first, galaxies or stars?” It was thought that probably stars came first and gathered into galaxies. Scientists now believe that they have discovered “Dark Galaxies” or galaxies that have no stars. This could cause a problem with the thought that stars must come first. Read more on dark galaxies at <http://news.nationalgeographic.com/news/2012/07/120711-dark-galaxies-missing-link-evolution-science-space-universe/> .
6. Scientists working at the 200 inch Mount Palomar telescope have worked out a way of dimming the light of stars in far-away solar systems, thereby allowing the possibility of seeing optically the planets that orbit the stars. One of the main problems when looking for exoplanets is that the star is so bright that it drowns out the weak light from planets. Read more at <http://www.skyandtelescope.com/news/162075015.html> .
7. There has been ongoing discussion for years about where the water on earth came from. The latest thought is that most of it came from asteroids rather than comets. The reason for this conclusion is from measuring the ratio of hydrogen to deuterium. This indicates the distance from the sun that the water formed.
8. Yet another very hot exoplanet has been discovered. This one is 33 light years from us, orbiting a red star in the short “year” of 1.4 earth days. This would mean that the temperature on the planet surface would be around 1000C. This is another discovery by the Spitzer telescope. For those wanting more information the planet is named UCF-1.01 and the star is called GJ 436.
9. Cerenkov telescopes are ground-based telescopes designed to detect the secondary particles formed when gamma rays interact with the atmosphere and emit what is known as Cerenkov radiation (named after the Russian scientist Pavel Alekseyevich Cherenkov). It is this radiation that makes some nuclear reactors glow blue. The largest of these telescopes has seen first light in Africa and is called HESS II. More information at <http://www.mpi-hd.mpg.de/hfm/HESS/pages/about/telescopes/> .
10. Saturn’s moon Iapetus is a very strange object. This has been reported on a number of times in previous minutes. One of the unusual things about it is the very large ridge that runs around most of the moon making it look a bit like a walnut. This ridge is up to 20km high in places, which is very high considering that the diameter of the moon is less than 1500km. See image below. Close

inspection of this ridge has shown about 30 landslides (or maybe, more correctly ice-slides or avalanches).



CLOSURE AND FUTURE MEETING TIMES:

The next monthly meeting will be Monday 3 September 2012, again at Boambee Hall at 7:00pm, all members and interested persons are encouraged to attend.

Meeting closed at 8:19pm.

VIEWING

The night was very cold. This was no real surprise as it is winter. History shows that this was the second coldest night in Coffs Harbour for the year so far; one night in June was 0.1C colder. However there were a number of members who were not adequately dressed for the conditions and this detracted from their enjoyment of the very nice night for viewing.

One of the telescope delights that we viewed was Alberio, the excellent double star in Cygnus the swan. Many believe this to be the best double star in the sky. While in the region of the swan we had a look at the ring nebula and the dumbbell nebula.

We also looked at a number of naked-eye objects including some of the higher constellations in the sky such as Sagittarius and Capricorn.

We again looked at one of our old favourites, the coathanger asterism in Vulpecular. This was viewed through a telescope and we could only see part of it in the field of view. Next time some binoculars would be better for this particular object.

Midway through our viewing session, at about 8:50pm we were lucky to see another meteor, very similar in description to the one reported to the meeting by Camilla and Terry. Both these two members were at the viewing and saw the meteor, vouching for its similarity to what they saw on 3/8/12. Many of those present regarded this as the highlight of the viewing.

Terry GILL
Secretary