



# Newsletter Winter 2007

Volume 3 Issue 1



(c) Dave Storey 6" F/8 Refractor. ToUcam. 16<sup>th</sup> May 2005 21.26 – 22.16h UT

## **Editorial**

Winter has taken its toll with the number of observing sessions that I have been able to do during the latter parts of 2006. The weather still doesn't cooperate as I write this editorial and I am hoping that 2007 will become clearer as time progresses. A very bright comet has recently passed between the Earth and Sun and I was blessed with two evenings when I was able to glimpse the comet soon after sunset in a bright sky! At its brightest, it was clearly visible to the naked eye during daytime hours from various spots around the globe where clear blue skies were available. Alas, the skies here in the Isle of Man were never clear enough for this observing rarity to be observed by myself.

This newsletter is now in its third year and up until this issue, they have been produced at no cost to the society with kind sponsorship from Sue and Ken Ackroyd. I would like to give great thanks for their kind support over the first two volumes. Gary Corlett was able to contact (and persuade) Martin Stratford-Parson of Office Equipment Centre, Douglas to take over the printing of the newsletter for free. I am sure that the society membership would like to thank Martin for this great offer and support to the continued success of our society.

It's never cheap to produce these newsletters and I have already been approached by some members wishing to be emailed the newsletter and not to receive a paper copy. So please do send me your email address if you prefer to receive future newsletters electronically. (Saves the trees and helps keep costs down for our new sponsor).

## **Chairman's Report**

Over the last few months there does seem to have been quite a considerable increase in the activities of the IOMAS, and we have had a good number of enquiries from various groups and organisations wanting to visit the observatory. Whilst we are usually able to assist, it is often now over 12 months before we can fit such requests in. I originally thought that the interest and curiosity factor would slowly disappear, but I have been amazed at the number of enquiries we are still getting. On the other hand it is great to be able to share with interested groups our facilities, and last month whilst showing a group the night sky through the telescope, we managed to see Saturn low in the East. The response I got was unbelievable, and one person was practically in tears, they were so pleased they had seen this wonderful sight. It made the visit personally very worthwhile and rewarding and I would recommend anyone who has yet to see the ringed planet from the Observatory to do so, as it will certainly inspire you. At present Saturn is near opposition and is thus visible all night, so do try and see it for yourself.

I have also noticed in the media that Astronomy is becoming far more "reportable" and this is also gratifying, when I first started teaching astronomy at night school back in 1985 there were 2 magazines available (and only by mail order, Sky & Telescope and Astronomy) well now there are at least 5 available, the two already mentioned plus Astronomy Now, Sky and Night and also Astronomy & Space. It just shows the level of interest that is continuing to grow. I put all this down to the increased level of environmental awareness and this I believe can be related back to those magnificent pictures from Apollo 8 at Christmas 1968.

I understand that our AGM speaker Ian Morison from Jodrell Bank has been singing our praises in Birmingham and we have had contact from another well known astronomer Peter Vasey who visited on New Year's day, so perhaps our magnificent facilities are becoming an attraction in their own right. I hope this may lead to more such visits and possibly we will have even more well renowned astronomers giving us talks at the Observatory. Speaking of which we had a fantastic evening on the 4<sup>th</sup> January when Nicky White & Max Shaw-Champion gave a packed observatory (over 50) a detailed look at the seismic background to the IOM and the British Isles in particular.

Looking ahead to events in the Manx Night sky in 2007, we have included in this newsletter a review of the highlights for 2007 and I hope this may be of some interest. Do let Dave or I know, it is always useful to receive feedback. The highlights of 2007 are undoubtedly the lunar eclipse on the 3<sup>rd</sup> March, the conjunction of Venus & Saturn on the 2<sup>nd</sup> July, and the Martian opposition on Christmas Eve. Add to this the fact that the Lyrids (22/4) and Perseids (12/8) meteor showers, both peak at times of minimal lunar activity, then 2007 should be a good one for us.

Our programme for 2007 has certainly got off to a flyer with the January meeting, hopefully we can have a few more clear skies and then 2007 will be a memorable one for Manx and other sky watchers everywhere.

Here's to clear skies and good seeing

Howard

Christama Dinner at Nyarbyl

Another successful dinner was held at Nyarbyl and we raised £135 for club funds with the raffle. The usual quiz was delivered by Dave Storey and first prize went to Tom Kaneen. Well done Tom.

## Membership Fees Due

If a membership form has been included with this newsletter, it indicates that your membership renewal is still due. Please return your fees as soon as possible. Can be posted or see Dave Storey at the next meeting.

## Meetings

Listed below are the planned meetings at the observatory. The meetings in *italics* are for groups outside of the IoMAS, but any member is allowed to attend these meetings where you may help with the visit, or just use the telescopes. Note these meetings may change at short notice. Contact the host of the meeting to confirm. Also, see the IoMAS website as this has a page that is continuously updated.

- 4<sup>th</sup> January "What lies beneath the IoM" by Cambridge University Team. Dr N. White & Dr M Shaw-Champion
- 18<sup>th</sup> January Committee Meeting
- 25<sup>th</sup> January *Visit by Douglas Round Table, hosted by Howard Parkin / Gary Corlett*
- 1<sup>st</sup> February "Victorian Eclipses" by Helmut Kessler
- 8<sup>th</sup> February *Visit by the Laxey Rifle Club, hosted by Howard Parkin / Gary Corlett*
- 15<sup>th</sup> February Committee Meeting
- 1<sup>st</sup> March Workshop Meeting at Observatory
- 15<sup>th</sup> March Committee Meeting
- 22<sup>nd</sup> March *Visit by Friends of Manx National Heritage. Hosted by Howard Parkin / Gary Corlett*
- 26<sup>th</sup> March *Visit by Mensa Group. Hosted by Dave Storey*
- 5<sup>th</sup> April "Dark Matter" by Richard Shafto

## The Manx Night Sky. January - March 2007

All times are Universal Time (UT) Note: British Summer Time starts at 01.00am on 25<sup>th</sup> March. (BST = UT+1 hour).

### Sun

**(Never look at the Sun directly through any instrument or naked eye for that matter, you will be blinded!)**

The solar minimum is now showing its effect with the Sun having frequent days with no sunspots visible. The Sun has currently ended solar cycle 23 and there is evidence that the next cycle, #24 has started. This was picked up in magnetic field reversal in a small sunspot group as seen on 31<sup>st</sup> July 2006. If you have web access, see

[http://science.nasa.gov/headlines/y2006/15aug\\_backwards.htm](http://science.nasa.gov/headlines/y2006/15aug_backwards.htm)

### Moon

New	1 <sup>st</sup> Qtr.	Full	3 <sup>rd</sup> Qtr.
19 <sup>th</sup> Jan. 04.01hrs	25 <sup>th</sup> Jan. 23.01hrs	3 <sup>rd</sup> Jan. 13.57hrs	11 <sup>th</sup> Jan. 12.45hrs
17 <sup>th</sup> Feb. 16.14hrs	24 <sup>th</sup> Feb. 07.56hrs	2 <sup>nd</sup> Feb. 05.45hrs	10 <sup>th</sup> Feb. 09.51hrs
19 <sup>th</sup> Mar. 02.43hrs	25 <sup>th</sup> Mar. 18.16hrs	3 <sup>rd</sup> Mar. 23.17hrs	12 <sup>th</sup> Mar. 03.54hrs

### Lunar Occultations: ( Stars brighter than magnitude +6.0 )

Date	Time (h.m:s)	Star	SAO#	Magnitude	PA	Type of Event	Notes
9 Jan	00.06:00	ZC1663	118875	4.9	346	RD	tau Leo
26 Jan	21.52:15	ZC440A	75673	5.2	062	DD	epsilon Ari
4 Feb	03.46:05	ZC1547	118355	3.8	287	RD	rho Leo
18 Feb	17.51:06	URANUS		5.9	070	DD	See below
20 Feb	18.37:33	ZC103	109470	5.9	076	DD	62 Psc
20 Feb	19.04:50	ZC105	109474	4.4	035	DD	delta Psc
22 Feb	20.49:26	ZC399	93062	5.7	070	DD	mu Ari
23 Feb	22.45:53	ZC536	76126	5.5	124	DD	Celaeno/Pleiades
23 Feb	22.51:15	ZC539	76140	4.3	086	DD	Taygeta/Pleiades
23 Feb	23.09:30	ZC541	76155	3.7	113	DD	Maia/Pleiades
23 Feb	22.10:32	ZC542	76159	5.8	072	DD	Asterope1/Pleiades
26 Feb	00.53:25	ZC885	77625	5.9	090	DD	
26 Feb	02.18:07	ZC890	77675	4.6	177	DD	136 tau
30 Mar	03.25:09	ZC1487A	98967	1.4	148	DD	Regulus

Times are UT as seen from IoMAS Observatory. Start to observe these events about 5 minutes before the above times to allow for differences in your latitude and longitude. This will give you time to locate the star that is about to be occulted.

ZC = Zodiacal Catalogue. Type of Event DD = disappearance at dark limb, RD = Reappearance at dark limb.

PA = Position Angle around limb of the Moon, where 0 degrees is north, 90 degrees is east, 180 degrees is south and 270 degrees is west.

There is a total lunar eclipse on 3<sup>rd</sup> March. First contact of umbra shadow starts at 21.30pm. Totality is between 22.44hrs to 23.57hrs. The Earth's umbra shadow leaves the Moon at 01.11hrs on the 4<sup>th</sup>.

## Planetary Highlights

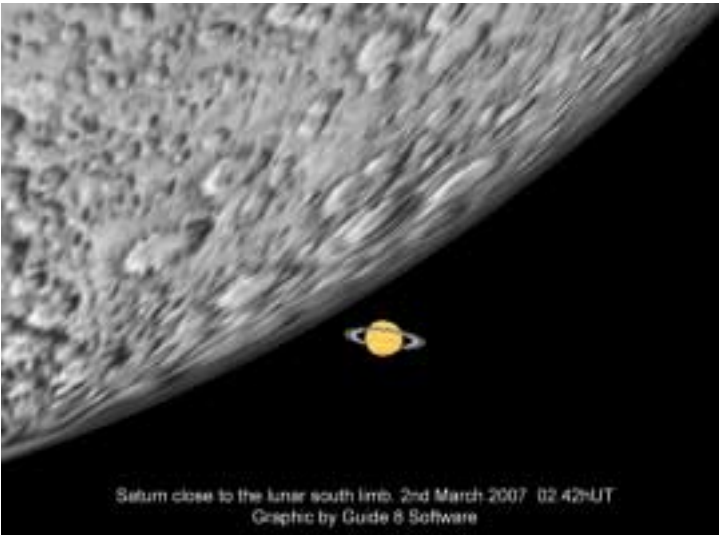
**Mercury** will be well placed for evening observation during February. On the 7<sup>th</sup>, the planet will be at greatest eastern elongation and will be seen after sunset. Try first locating the planet with binoculars. Once located, it should be clearly seen with the naked eye. Note that the very bright Venus will be about 6 degrees at the upper left of Mercury at this time, so use Venus as a guide to track down Mercury. After the 7<sup>th</sup>, Mercury rapidly moves ever closer to the Sun and passed between the Earth and Sun (Inferior Conjunction) on the February 23<sup>rd</sup>.

**Venus** is an evening 'star' for the first quarter of 2007 and can be found low down in the western sky after sunset. On the 7<sup>th</sup> February, the planet Venus will aid the search for Uranus, see below. By March, the planet will be approaching the Earth and getting brighter. Through a telescope, you should be able to see a gibbous phase.

**Mars** is on the far side of the Sun and is poorly placed for observation at the moment.

**Jupiter** is in the constellation Ophiuchus and is only going to be viewable in morning skies. Also, the planet is low down in the sky, so will be affected by poor viewing through a telescope. Having said that, it is still a rewarding object to see, with cloud belts visible upon the planet and the four Galilean satellites which can be seen changing relative positions night after night.

**Saturn** is at opposition on February 10<sup>th</sup> and hence will be visible soon after sunset in the east and can be followed all night until it sets in the west at dawn. The planet will be found in Leo, relatively close to the bright star Regulus. Of the two, Saturn will be the brighter.



Saturn close to the lunar south limb. 2nd March 2007 02:42:UT  
Graphic by Guide 8 Software

On the early morning of 2<sup>nd</sup> March, Saturn will skim pass the southern edge of the Moon and will look spectacular through any telescope. The planet comes closest to the lunar limb at 02h42m.

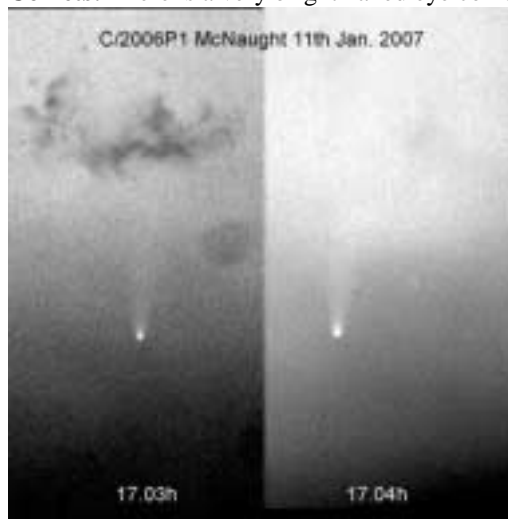
**Uranus** may be spotted in good binoculars or telescope on the evening of 7<sup>th</sup> February. Soon after sunset; track down the naked eye planet Venus in the west. Then using optical aid, see Uranus to the upper right at an angular separation of 40 arc minutes. (As a guide, note that the Moon has an angular diameter of about 30 arc minutes).

**URANUS OCCULTATION:-**

There will be a lunar occultation of Uranus on February 18<sup>th</sup>. This will be a very challenging event to observe. The first hurdle will be a cloud free evening! Then there's the altitude of the event of only 8 degrees above the horizon and trying to locate a very thin crescent Moon. A bit more slap in the face challenge will be a twilight sky! If you do get to see Uranus, then the first contact with the dark lunar limb will occur at 17h51m06s and last part of Uranus' disc will disappear 6 seconds later.....Good Look!

**Meteors:** The first three months of any year are devoid of many meteor showers. The only significant shower being the Quadrantids. This shower is active between 1<sup>st</sup> to 6<sup>th</sup> January, but any peak in activity is very short in duration. Up to 100 meteors per hour are theoretically visible in ideal conditions. These meteors appear blue / yellow in colour and the brighter meteors may leave persistent trains behind them. Maximum activity is due 23hrs on 3<sup>rd</sup>. Unfortunately, the Moon is full phase this evening, so most meteors will be drowned out.

**Comets:** There is a very bright naked eye comet at the time of writing these notes. Comet McNaught 2005P1 is so bright, it could be seen with the naked eye. This comet was observed from the IoM but alas the view was spoilt by its low altitude and cloud! Unfortunately, the comet is now only visible from the southern hemisphere.



There are no other predicted bright comets visible during the first quarter of this year, but you never know when the next bright one will appear.



On the 27<sup>th</sup> January, the Pleiades star cluster will be visited by the Moon. A splendid view should be seen though the likes of 7x50 binoculars.

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**DOME PHONE  
464926**

Please ring the Dome Phone on any clear night. There should be a committee member there if you're lucky. If you don't get an answer, please try any of the above committee members that have (**KEY**) next to their name to see if they plan to do some observing. They should be able to try to get the observatory open for you. If you know in advance what you plan to observe, again, ring the above committee members to arrange an observing session.

This newsletter has been very kindly sponsored by "The Office Equipment Centre" Douglas. Isle of Man.