



Newsletter Spring 2007

Volume 3 Issue 2



Editorial

The first three months of 2007 have been very productive in getting some decent views of the night sky. I was able to track down the dwarf planet Eris through the observatory's telescope. Although I will never likely see this planet with my MK1 eyeball, I used the next best thing, the society's CCD camera. The planet is very faint at magnitude 18.8 and resides about 2.5 times further than Pluto.

The close approach of Saturn to the Moon was a joy to watch and the image on the front page gives the view when the planet was closest to the Moon. Watching the image on the computer screen, it was amazing to see the actual Moon moving passed Saturn in real time. Two days later, we had clear skies for the total lunar eclipse. See below.

Finally, a great night was had during the workshop event at the March meeting. Please give the committee feedback on this event as we may do the same again in the future. John Hines from Manx Radio was also in attendance and he presented a talk show about "Astronomy" from the Isle of Man that was aired a few days later. I must say that those that took part in the chat gave a good feel to what astronomy is all about.

Chairman's Report

Last month (March) we saw a new type of meeting at the IOMASO. We had a workshop evening, and by all accounts it was a great success. We were really fortunate to have almost clear skies and many took the opportunity to see Saturn through the Meade as well as other sights. Other activities included solar observing, telescope set up, computer programs (Brrh!), the web site, dark skies, and basic constellation identification, you even had me making the tea! It was great to have so many people there, and so many activities. We will probably make this an annual event, but I would welcome comments from members as to their views and comments.

Now that the spring skies have appeared in their glory, it is a time to take a breather after what has been quite a good winter of observing. I often point out to people the fact that in winter we have a large amount of really bright stars, the winter hexagon, Orion etc and we are fortunate that these stars appear in our skies at the darkest and longest nights of the year. Spring on the other hand only has 3 really bright stars, Arcturus, Spica and Regulus, so it appears sometimes that there aren't as many stars about. This is of course an illusion, you get your eyes "dark adapted" and there are many great sights to see. What we lack in bright objects in spring we gain with some magnificent deep sky objects. The Coma and Virgo clusters are breathtaking in binoculars, and through our 16 inch Meade, unbelievable!

No view of the night sky can ever compare to the view of Saturn, and right next to Regulus in Leo it is visible all night. Recently we have had a few astronomical spectaculars. Mercury was clearly visible in the evening skies above Peel in February. On March 2nd, we had a near miss of Saturn and the Moon, and Dave's photo of this, shown on the front of this newsletter, is spectacular. At this point I must congratulate Dave as this photo by Dave is on the front of the BAA website as the "Photo of the Week" during mid March. Well done Dave, fantastic image and another great achievement for both you and the IOMAS.

This breathtaking event was followed the next night by a wonderful lunar eclipse, which was seen all over the Island, and I was inundated with comments from astronomers and "non-believers" for days after. What was so pleasing was that we had for once a succession of clear skies and spectacular events coinciding, as Dave put in his Blog on IOM Stargazer, "What's going on?" Talking of which I recommend this to anyone; just look on the left hand side of our main web page at iomastronomy.org. and click on [IoMStargazer](#).

Later this year we will have a spectacular conjunction of Venus and Saturn (2nd July) and with Mars at Opposition at Christmas Eve we have a lot to look forward to.

The lunar eclipse reminded me of the fact that just a year ago Dave, Gary C and I went to see the total eclipse from Side in Turkey, and I am still recovering from what was a really special occasion. I understand that the 2008 one from China will not be as good for access and weather, but the following one in 2009 is a great prospect, I think I will start saving up!

Finally, Congratulations to one of our members who is heading for the stars, Nicole Stott has just been named as a backup for an ISS mission next year, next stop is an actual mission, we will all be looking forward with anticipation to the flight of our first IOMAS astronaut, well done Nicole,

Let's hope for lots more clear skies and keep your feet on the ground and your head in the stars
Howard Parkin.

Lunar Eclipse:

The weather was good here on the island and over on the mainland UK. Melvyn Taylor imaged the eclipse from Wakefield, Yorkshire and submitted the images below. Closer to home, Graham Gordon snapped the eclipse from his home in Douglas. At the observatory, the eclipse was imaged through a digital camera that was tapped to the 16" Meade. The actual eclipse was best viewed through low power binoculars and from the dark sky at the observatory, the red eclipsed Moon looked spectacular surrounded by the stars of Leo.



(c) Melvyn Taylor.



(c) Graham Gordon

Telescope Donation

Gary Kewin has been researching the astronomer Charles Frederick Butterworth who was a resident on the island at the turn of the last century. Gary was able to track down the house that Charles lived in and further researched enabled the



telescope illustrated left to be found. This telescope has now been very kindly donated to the society by Joan Faragher, whose late husband Albert used to use the telescope.

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.

5th April "Dark Matter" by Richard Shafto
19th April Committee Meeting
3rd May "Short Papers Meeting"
17th May Committee Meeting
7th June "IT & Astronomy" by Mark Henthorne
21st June Committee Meeting
5th July "Solar Observing" by Alan Buck

The Manx Night Sky. April - June 2007

All times are Universal Time (UT) Note: BST starts 2am on 25th March. (BST = UT+1 hour).

Moon

New	1 st Qtr.	Full	3 rd Qtr.
17 th Apr. 11.36hrs	24 th Apr. 06.36hrs	2 nd Apr. 17.15hrs	10 th Apr. 18.04hrs
16 th May 19.27hrs	23 rd May 21.03hrs	2 nd May 10.09hrs	10 th May 04.27hrs
15 th June 03.13hrs	22 nd June 13.15hrs	1 st June 01.04hrs	8 th June 11.43hrs
		30 th June 13.49hrs	

Lunar Occultation's: (Stars brighter than magnitude +6.0)

Date	Time (h.m:s)	Star	SAO#	Magnitude	PA	Type of Event	Notes
26 Apr	21.36:44	ZC1547	118355	3.8	110	DD	rho Leo
26 Apr	23.43:25	ZC1550A	118380	5.8	162	DD	TX Leo (Double)
20 May	21.00:57	ZC1170A	79653	3.7	099	RD	kappa Gem
22 May	19.01:13-19.02:05	Saturn		0.4	145	DD	Day Light
22 May	20.07:50-20.09:20	Saturn		0.4	279	RB	Day Light
18 June	13.53:24-13.54:13	Venus		-4.3	133	DD	Day Light
18 June	15.12:27-15.13:02	Venus		-4.3	282	RB	Day Light

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, RB = Reappearance at bright 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.

Planetary Highlights

Mercury reaches superior conjunction (far side of the Sun) on 3rd May. The planet then moves to greatest eastern elongation (left of the Sun) on the 2nd June and is visible after sunset.

Venus reaches greatest eastern elongation on the 9th June and is a brilliant star in the evening sky. The planet makes a close pass to the Pleiades between the 10th and 12th April.

Mars becomes visible in the morning sky during June, but is generally poorly placed for detailed observation.

Jupiter reaches opposition on the 5th June and rises as the sun sets. Unfortunately, the planet never gets too high in the Manx skies and any image through a telescope will suffer turbulence from the Earth's atmosphere. It is still a fascinating project to sketch the position of the four Galilean moons soon after sunset and then re draw their positions a couple of hours later. You should see their relative movement to each other.

Saturn is in the constellation Leo and outshines all of Leo's stars. During April, the planet will be moving away from the brightest star in Leo, namely Regulus. Relative to the background star, Saturn will be moving retrograde (to the right) of Regulus until the 19th, when Saturn will seem to stop its motion and then begin to move direct (to the left) in the sky and getting closer to Regulus.

Meteors: In the list below, the number of meteors that may be seen are estimates and are based of ZHR (Zenithal Hourly Rate) as quoted in the BAA Handbook. These ZHR's are then corrected to take account of the altitude that the meteor radiant attains when it transits the southern meridian.

Viginids are active during the month of March and April with enhanced activity between 7-18 April. Maximum date is 10th April when about four meteors can be seen per hour in ideal conditions.

Lyrids are active between 19-25th April, with maximum due on 22nd. Nine meteors per hour may be seen.

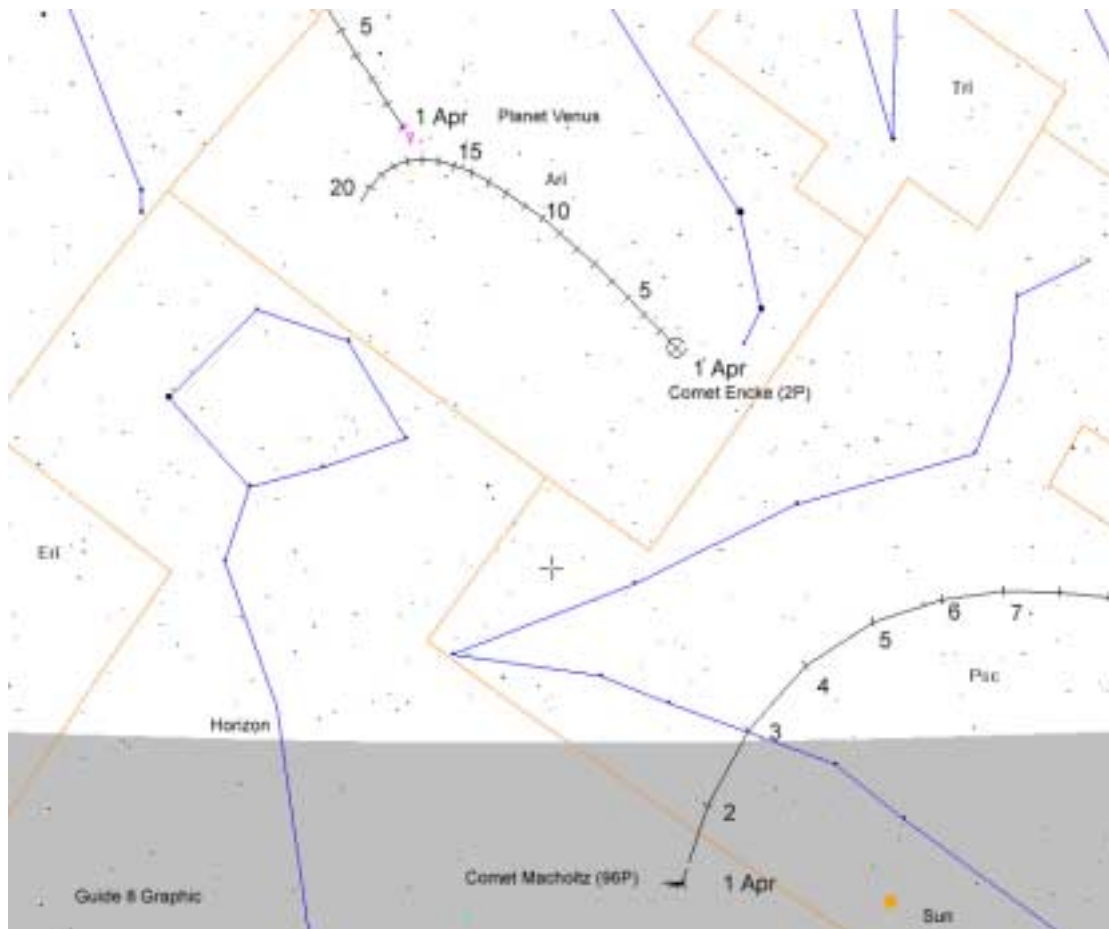
Comets:

2P/Encke is expected to reach magnitude +3.0 around 20th April. This comet may possibly be glimpsed with the naked eye soon after sunset and when the sky becomes dark enough. The comet doesn't get far from the setting sun and so will be better observed through binoculars. The ephemeris below is from Guide8 software.

Date	Time (UT)	RA	Declination	Mag
10 Apr 2007	20.00	2h36m13.76s	N18 30' 36.2"	5.8
11 Apr 2007	20.00	2h39m49.34s	N18 28' 19.4"	5.5
12 Apr 2007	20.00	2h43m15.35s	N18 23' 15.3"	5.3
13 Apr 2007	20.00	2h46m28.68s	N18 15' 01.9"	5.0
14 Apr 2007	20.00	2h49m25.82s	N18 03' 16.5"	4.8
15 Apr 2007	20.00	2h52m02.97s	N17 47' 36.7"	4.5
16 Apr 2007	20.00	2h54m16.15s	N17 27' 41.4"	4.3
17 Apr 2007	20.00	2h56m01.49s	N17 03' 12.5"	4.2
18 Apr 2007	20.00	2h57m15.42s	N16 33' 56.3"	4.1
19 Apr 2007	20.00	2h57m55.04s	N15 59' 44.7"	4.0
20 Apr 2007	20.00	2h57m58.27s	N15 20' 36.9"	3.9
21 Apr 2007	20.00	2h57m24.11s	N14 36' 38.8"	3.9
22 Apr 2007	20.00	2h56m12.68s	N13 48' 03.8"	4.0
23 Apr 2007	20.00	2h54m25.14s	N12 55' 11.7"	4.1
24 Apr 2007	20.00	2h52m03.60s	N11 58' 27.9"	4.2
25 Apr 2007	20.00	2h49m10.89s	N10 58' 21.7"	4.3
26 Apr 2007	20.00	2h45m50.37s	N 9 55' 25.6"	4.4
27 Apr 2007	20.00	2h42m05.66s	N 8 50' 13.5"	4.6
28 Apr 2007	20.00	2h38m00.51s	N 7 43' 19.9"	4.8
29 Apr 2007	20.00	2h33m38.62s	N 6 35' 18.7"	5.0
30 Apr 2007	20.00	2h29m03.51s	N 5 26' 42.1"	5.1

P/Machholz (96P) will be passing north of the Sun during the first week of April. It is brighter than Comet Encke, but will be difficult to see due to its closeness to the solar glare. See Guide8 Graphic on page 6.

Date	Time (UT)	RA	Declination	mag
1 Apr 2007	19:40	1h11m43.48s	N 0 33' 52.5"	4.2
2 Apr 2007	19:40	1h15m37.31s	N 3 39' 28.5"	3.3
3 Apr 2007	19:40	1h17m18.71s	N 7 00' 36.0"	2.5
4 Apr 2007	19:40	1h15m36.05s	N10 20' 32.0"	2.2
5 Apr 2007	19:40	1h10m23.79s	N13 13' 06.2"	2.6
6 Apr 2007	19:40	1h03m02.86s	N15 25' 55.4"	3.4
7 Apr 2007	19:40	0h54m54.54s	N17 04' 08.3"	4.2
8 Apr 2007	19:40	0h46m41.82s	N18 17' 06.0"	5.0
9 Apr 2007	19:40	0h38m42.35s	N19 12' 13.1"	5.7



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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.