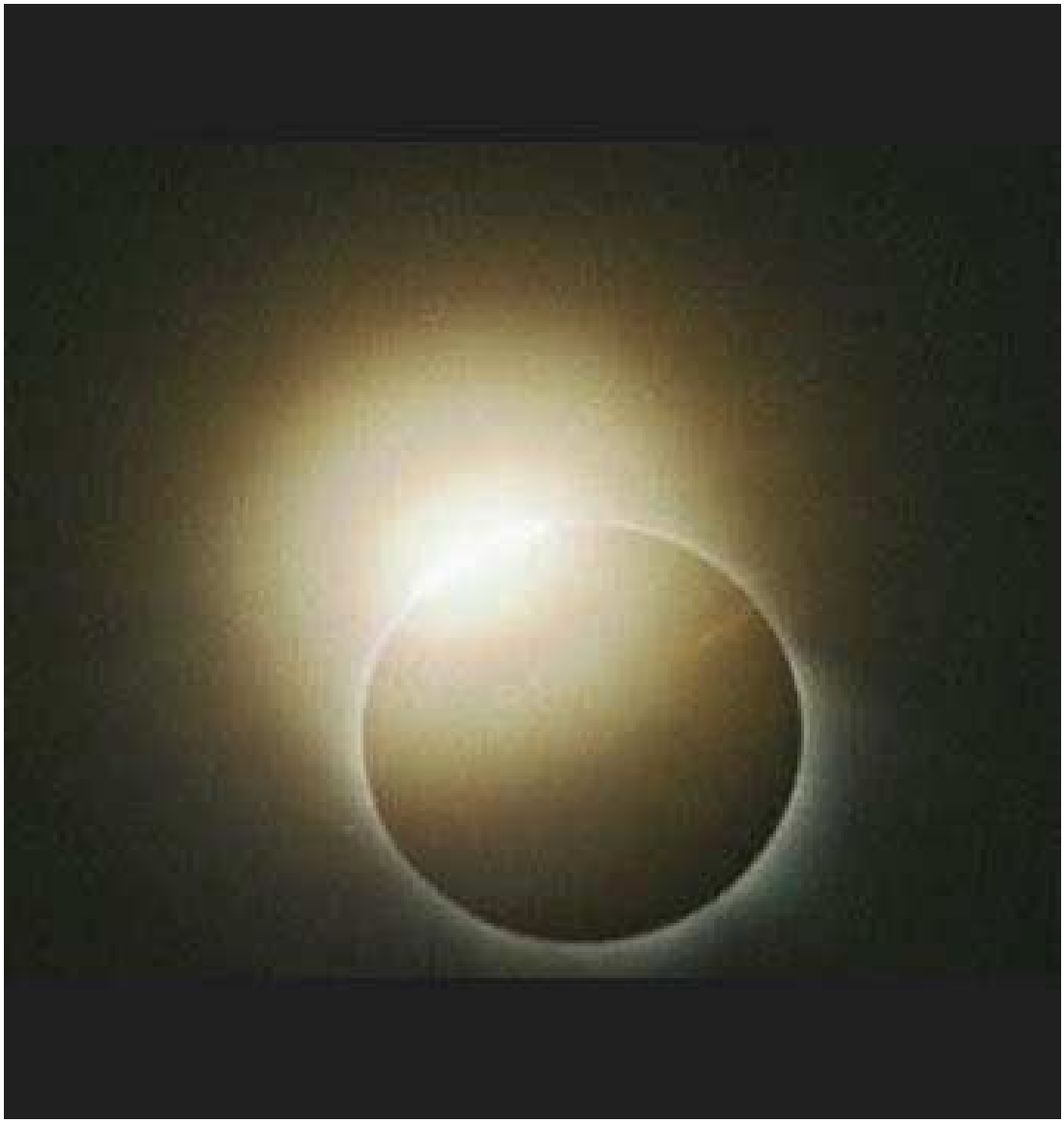
Newsletter Summer 2006

Volume 2 Issue 3



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Editorial

The summer has taken its toll on my observing exploits with very little observing being done. During the weeks either side of the Summer Solstice, the sky doesn't get fully dark and any trips to the observatory don't occur until after 10.30pm. The night sky still is a joy to observe during the summer with the Milky Way passing majestically overhead. I well remember observing the sky on my first summer here on the island back in 1998 and getting a bit frustrated about a misty patch of cloud hovering over in the south, only later to realize that it was indeed a cloud, but the Scutum Star Cloud!

Please send me any articles for the next newsletter. To arrive by early September.

Chairman's Report

Well times travels fast as an astronomer (I suppose Stephen Hawking would now more about that than I) but it is hard to realise that nearly 3 months have gone by since Gary, Dave & I went to see the eclipse in Turkey. It still gives me a thrill talking and thinking about it. And I am sure that my night school class this next winter will get fed up with my talking about it. On a serious note I have to a advise anyone even remotely interested in maters astronomic to try and get to see one as it was a most moving and spectacular occasion. Dave did say to us before the event that they are addictive and I can well believe it. We are already thinking about a trip to China in 2008 or 2009. Perhaps we could arrange a bigger party? One thing I would point out is that where we saw the eclipse was I believe ideal, we had our own patch of land with plenty of room to set everything up, and at the moment of totality we were all grateful for the space. An eclipse really is a personal thing and the photos of hoards of folks in that amphitheatre would for me have been a big disappointment.

We came back from the eclipse we had the talk by Bob Simpson at the St Ninians Lecture theatre on the private exploitation of space. What a fascinating guy, he really enthused all of us present with his talk about his experiences and aspirations. I was disappointed that we had such a small audience. We do not get many people of his experience and I certainly hope he will return and perhaps give us another talk when more could be present. Talking of speakers, I am delighted to advise that our AGM will have a guest speaker of some renown. Ian Morrison from Jodrell Bank has agreed to be our speaker and Ian is well known as the main spokesman for Jodrell Bank and is a leading astronomer in his own right. He was our expert astronomer at the eclipse and we took the opportunity to invite him over and I was delighted when he accepted. So a date for your diaries is Thursday 28th September, the venue has yet to be decided, but it should be a great night.

As the new observing year is almost upon us, (again doesn't time go-fast!) I am once again looking for speakers for the next 12 months and also for ideas about how we run the meetings, There will be a questionnaire out by the time you read this, so please any suggestions about any aspect of the Society would be gratefully received. We can carry on as we are, one argument being "if it isn't broke, don't fix it" or we can consider more workshops, quiz nights or social activities. The choice is up to you.

In the meantime here's to clear skies, good seeing and hopefully a discovery or two to ~~put~~ keep us on the map

Howard

Front Cover

© Graham Gordon

The diamond ring was caught on Howard Parkin's camera during the eclipse that was seen back in March. Howard, Gary Corlett, Dave Storey and Howard's brother Graham traveled to Side in Turkey to witness what has to be the most amazing astronomical site any one can see. At £350 for a two day jaunt out to Turkey was well worth it and for a change the weather co-operated, not like the Cornwall event back in 1999! The day dawned clear on eclipse day and we found a nice spot in the grounds of the Xanthe hotel. After setting up the cameras it was a simple case of sitting in the Sun awaiting the actual total phase. The final minutes before totality is when the fun starts! You notice the daylight colours around you change. The shadows don't look normal and the shadow edges look sharp. The temperature starts to fall and a gentle breeze started. A quick reminder for us to take off the solar filters from the cameras and then shouts cheers from the crowds as we get the first diamond ring. Here we go for 3minutes and 40

seconds of totality. The first minute is used up in taking pictures. The middle minute is simply enjoying the view both at the eclipsed Sun and the surrounding sky. Venus shone brightly over in the west and Mercury was visible between the Sun and Venus. I did not notice any other stars. I also noted that the actual sky didn't get too dark as previously observed back in 2001 when I went to the Zimbabwe to see another eclipse. There was some haze in the Turkish sky, so this may be the cause of the sky not getting fully dark. Then after the team picture was taken, (I still can't believe we turned our backs to the eclipse for 20 seconds!) it was back to the cameras for more clicking away. The 2nd diamond ring called the end to this eclipse with a spontaneous applause from the crowds. Ian Morrison, who was talking over a public address system, gave a running commentary as the eclipse progressed and he finished off his talk, he said "Wasn't that worth 350 quid?" You bet. Back at the IoM, the eclipse was only a partial event and Graham Gordon was able to capture the above image.

Notes by James Martin:-

Following a question from a member of the public as to the names for various Moons, I thought our members may find this interesting as well.

The Names of the Full Moons

Here are the traditional names given to each month's full moon from the "Farmer's Almanac":

January	Wolf Moon
February	Snow Moon
March	Worm Moon
April	Pink Moon
May	Flower Moon
June	Strawberry Moon
July	Buck Moon
August	Sturgeon Moon
September	Harvest Moon
October	Hunter's Moon
November	Beaver Moon
December	Cold Moon

... and, of course, when a month has two full moons, the second is often called a Blue Moon

Further names from other sources for full moons:

	Algonquin/ colonial	English/ medieval	neo-Pagan	Other
Jan	Old	Wolf	Ice	Moon After Yule
Feb	Hunger	Storm	Snow	
Mar	Crust	Chaste	Death	Sap; Crow; Lenten
Apr	Pink	Seed	Awakening	Grass; Egg
May	Flower	Hare	Grass	Planting; Milk
Jun	Rose	Dyan	Planting	Strawberry; Flower
Jul	Buck	Mead	Rose	Hay; Thunder
Aug	Sturgeon	Corn	Lightening	Grain; Dog Days
Sep	Harvest	Barley	Harvest	Fruit
Oct	Hunter's	Blood	Blood	
Nov	Beaver	Snow	Tree	Frosty
Dec	Cold	Oak	Long Night	Moon Before Yule

I was also asked if I had heard of the Moon that casts no shadow.

I have not personally heard of this, any object that is bright enough will cast a shadow. Venus can cast a shadow, and I have seen the Aurora cast a shadow if it is bright enough.

I found the following poem on the internet:

Shadow casts

By Dale Kirby

New Moon casts no shadows
Full Moon casts no doubts
Some people live in life's shallows
Never knowing its ins and outs
That the only certainty is the wax and wane
That feeling bad is on the way to feeling good again
Still...my thoughts get heavy with the loss of light
Hope ebbs and flows with the rhythms of the night.

Letter From Yorkshire!

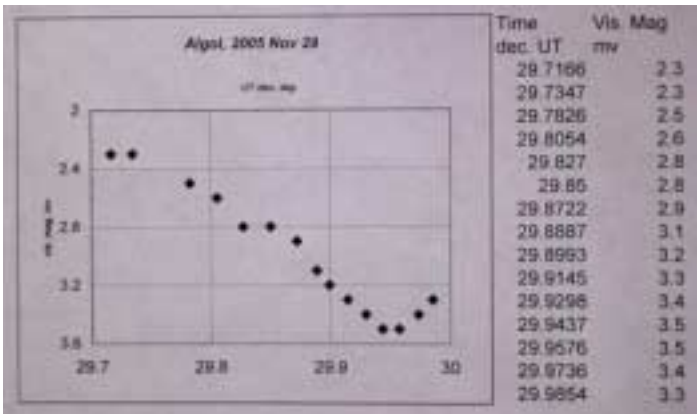
2005 Summary - & Highlights Melvyn Taylor

The year 2005 was memorable from a personal viewpoint. Highlights were 32 years' membership in the West Yorkshire AS, 40 years in Leeds AS and all ego aside (?) the receipt of the BAA's Merlin Medal and the 2005 Observer of the Year Award (the John Boase Shield) of IoMAS. I had the chance to present talks to; York AS, Scarborough and Ryedale AS, Isle of Man AS - twice, Bristol AS, South Downs AS (Chichester) and a poster paper at the Scottish Astronomers' Weekend (Inverness). But from a backyard observational view the summary comes to 152 usable clear occasions with 19 had in November. These are mainly evening sessions of short or long duration devoted to variable stars since I am terrible at early morning get-ups. Observations are made from a small area of the garden/yard which is not directly lit by neighbours' lights about 1.5 km s-west from the centre of Wakefield. A total of just over 3000 variable star observations were made in 2005.

On January 21/22 at York and about to set up the talk on observing - a local member had 'phoned Hazel Collet to say that an aurora had been seen. It was a very bright and active event since from the grounds of the Priory Centre huge red and green, with violet sheets violated the northern aspect for some time. The chat was delayed for a while for members to take in the fantastic scene.

A new comet C/2004 Q2 found by Don Machholz (USA, CA) in Eridanus using a 150mm f/8 reflector on Aug 27 turned many heads in late 2004 and into 2005. Even in small 8 x 40 binocs and a 80mm f/5 refractor from Wakefield the object was found on several occasions during January to March; at best it appeared like a 4th magnitude star, fairly evenly condensed about a quarter of a degree across and with a tail very difficult to see due to stray light and pollution. Some believe in UFOs - I am not convinced but thoughts were rife on Feb 19 when a peaceful view in Cepheus was destroyed by 3 similar stellar-like moving objects. Details of the observation are as follows; field the variable DM Cep, first seen 21h 37m followed to 21h 41m (UT) when they faded in Draco, the speed estimated over one field of my 16x70 binocular was 12' arc per second. More than likely US in origin and classified (?). In contrast I am generally proud to see and ponder on the ISS when it gracefully comes into the southern sky from its western illumination. Variable stars are the main interest and have been so for many years; now and again it is good to see brightness changes in one evening, never mind over the course of days, weeks or months.

One famous case is Algol, the naked-eye star followed and researched by John Goodricke and Edward Piggot of York in the 1780s. The light curve of its eclipsing fade and small rise centred on Nov 29.951 (U.T.) was terminated by an urge to sleep. This is shown with the vital basic observations in the plot. It was also seen going through its dim phase (primary minimum) on 2005 Feb 01.877. Similarly RZ Cassiopeiae which is another eclipsing binary varying from magnitude 6.2 to 7.7 every 1.192 days was caught 2005 Dec 12.84 (U.T.) at minimum brightness using 16 x 70 binocs. Of the 120 variables that I try to follow, some more closely than others, it is always good to search for objects that are available from here infrequently. This is true of the long period variable (like Mira) R Hydrae (4.5 to 9.5, variable period 388d) which slumbers under Spica and may only be seen due to a low but not long southern horizon. This was achieved on May 7, 8, 9 when the mounted 16 x 70 binocs homed in on this region at declination -22degrees.



The August Perseids were seen this year since a clear spell occurred over Aug 8 to 14 and it was good to have a laid-back visual watch in conjunction with an attempt at meteor photography, which was not successful! Two very slow and 'red' bright meteors were logged on Aug 20, the other Nov 24 and an enquiry if these were space debris suggested - "no", more than likely of solar system origin. Noctilucent clouds - mother of pearl coloured and associated with a low angled Sun were spotted once Jun 22/23 seen between a gap of houses to the north. Two other possible sightings were made Jun 25/26 and July 6/7 but these were not confirmed by the BAA team of observers. When one trudged to work (Normanton) on a cool winter morn, Dec 22 at 08h02m to 08h10m, the sight of highly coloured nacreous clouds in close conjunction with the Netto store and a solar globe almost in the same line of sight was unusual, and no camera was available! It's the usual case when something needs photographing. Mars was being hyped a lot last year - quite right, of course, but over the top. Several views were had in November of the salmon coloured disc and darker features, plus its south polar region using the 220mm dobsonian reflector magn. x 214. Little (940 km) 1 Ceres the minor planet caught by G. Piazzi 1801 Jan 01 was near a variable star (delta Lib) seen May 20, it was travelling slowly over the next few days as spotted in binocs.

The all powerful Sun, destroyer of all things less massive than it and potentially of eyes has to be respected. Now and again if sky clarity permits I use a 80mm refractor with a Baader type visual filter and search out any sunspots and faculae near the solar limb. A gargantuan spot with several other culprits smeared the photosphere Sep 17 and an attempt to draw this is attached.
I am sure photographers, ccd'ers, and webcam'ers have far more of an easier time (?).

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.

Please note the August monthly meeting date has been changed to 10th August due to the Manx Rally being carried out the week before. We apologies for any inconvenience caused.

6th July. Monthly Meeting. "Solar Observing" by Alan Buck
20th July. Committee Meeting.
26th July. *Onchan School Visit. Howard Parkin.*
2nd August. *Visit by the Children of Chernobyl Peter Callister and Dave Storey*
10th August. Monthly Meeting. "Celestial Lollipops" by James Martin
17th August Committee Meeting.
7th September. Monthly Meeting. "The Astronomers Royal" by Gary Corlett
14th September. Committee Meeting.
21st September. AGM. (To be confirmed)
5th October. Monthly Meeting. Speaker. TBA.

The Manx Night Sky. July – Sept. 2006

All times are Universal Time (UT). Add 1 hour to get local IoM time ie, British Summer Time (BST)

Sun

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

Solar activity has been very low during the first half of 2006 and the trend is for continued low activity.

Eclipses

There is a partial lunar eclipse on 7 Sept. On this date, the Moon will rise at 19hrs, already in eclipse. Only the very top part of the Moon will be eclipsed and may prove an interesting photographic target. The shadow of the Earth leaves the lunar disc at 19.40hrs.

An annular solar eclipse occurs on 22 Sept. but no part of the eclipse is visible from the Isle of Man.

Moon

New	**1st Qtr.**	**Full**	**3rd Qtr.**
25th Jul. 04.31hrs	3rd Jul. 16.37hrs	11th Jul. 03.02hrs	17th Jul. 19.13hrs
23rd Aug. 19.10hrs	2nd Aug. 08.46hrs	9th Aug. 10.54hrs	16th Aug. 01.51hrs
22nd Sep. 11.45hrs	31st Aug. 22.56hrs	7th Sep. 18.42hrs	14th Sep. 11.15hrs
	30th Sep. 11.04hrs		

Lunar Occultations: (Stars brighter than magnitude +6.0)

Date	Time (h.m:s)	Star	SAO#	Magnitude	PA	Type of Event	Notes
20 Aug	02.38:53	ZC1088	79141	5.8	314	R	(47 Gem)
9 Sept	22.39:38	ZC146	109627	4.3	238	R	
12 Sept	00.42:03	ZC435	75662	5.8	273	R	
12 Sept	21.35:28	ZC560	76228	3.6	257	R	Atlas. Pleiades
12 Sept	21.36:33	ZC561	76229	5.0	275	R	Pleione. Pleiades
14 Sept	22.54:56	ZC885	77625	5.6	279	R	
18 Sept	21.14:02	ZC1308	80378	4.7	235	R	
1 Oct	20.29:32	ZC2910	188722	4.7	073	D	

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 D = disappearance, R = Reappearance. 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 is at greatest western elongation on August 7th. around this date, Mercury can be seen below the bright planet Venus, just before sunrise.

Venus is a morning star and very bright at magnitude -3.9. The disc of the planet is gibbous and growing to full phase as seen through a telescope.

Mars is no longer bright as it moves towards the Sun. The disc of the planet is very small and is beyond imaging through a telescope. It may be seen in the sky, low down after sunset in the constellations Cancer, Leo and Virgo. Poorly placed this summer.

Jupiter is low down in the summer skies in the constellation of Libra. At magnitude -2.2, fading to -1.7, Jupiter is by far the brightest 'star' in the southern sky.

Saturn moves towards the Sun in the evening sky and is lost in the twilight. The planet is due conjunction with the Sun on 7th August. The planet becomes a morning object after this date and will only become easily visible in September. A telescope still proves a splendid sight with the rings open at an angle of 15 degrees. On the morning of 19th September, Saturn will be seen a couple of degrees to the right of a thin crescent Moon. Should make a nice photo!

Uranus is at opposition on September 5th in Aquarius. The planets may be seen through binoculars, one degree to the left of the star lambda Aquarius on this date.

Neptune is at opposition on August 11th in Capricornus. The planet will need a telescope to locate as it will be at a faint magnitude of 7.8

Meteors

Aplha-Cygnids are active throughout July and August, with maximum activity on two days, 21st July and 21st August. The maximum has only 5 per hours, so there won't be much to see.

Capricornids are again visible during July and August with three peak activity dates, 8th, 15th and 26th July. The number of meteors per hours is 5 but these meteors are bright and yellow-blue in colour. These should be more readily visible.

delta-Aquarids are visible between July 15th through 20th August. Maximum occurs on two dates, July 29th (with 20 meteors per hour) and August 6th. (with 10 meteors per hour). These meteors are better observed from the Southern Hemisphere.

alpha-Capricornids may be seen between July 15th and August 20th. These meteors are slow moving and produce long trails, often fireballs are seen. Maximum per hour is 5.

iota-Aquarids are active during July and August. Maximum due on 6th August when up to 8 per hour may be seen. The meteors can be faint though.

Persieds are the most active during the summer, with up to 80 meteors per hour. Unfortunately, the waning gibbous Moon will drown out most of the fainter meteors. Maximum occurs on 12th at 20hrs. But a few days either side should have many meteors.

Piscids is a low rate meteor shower. They can be seen during September and October with peaks on 8th, 21st September and 13th October.

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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 edition of the IoMAS Newsletter is kindly sponsored by Sue and Ken Akroyd.