



Newsletter May - August 2010

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Picture Credit: NASA / Nicole Stott

Chairman's Notes

Astronomy as a subject never ceases to amaze me. Over the last year or so there have been a number of things that lead me to this conclusion. Firstly over the last few months I have had a succession of phone calls, meeting and letters from people from all walks of life asking me general questions about the subject. These questions vary from "What do we do at the observatory" to "What's that big star that is always visible above Peel"! Secondly, the level of interest in IOMAS member Nicole Stott's mission last year and already for her next mission is just never ending; I seem to receive something about it each month. It's great to have such a strong level of interest in our subject and long may it continue. Thirdly I find that on these lovely summers evenings that it is great fun to just look skywards late on say 10.30 to 11.00 and see what the first star to appear is, more importantly try to identify it, its nearly always Vega but its good fun and sometimes what you think is Vega turns out to be something else, Deneb, Arcturus etc.

Summer does tend to be a quieter period of time for astronomers, but there is still a great deal that can be done. For Solar observers it may be a particular exciting time with the Sun, now rising from an extended period of minimal activity to what may be an interesting maxima in a few years time. We also have a the opportunity to look out for noctilucent clouds, sun dogs and other atmospheric phenomenon, so it's never quiet if you are a keen observer, keep those observations coming in folks. Talking of which, I know I mentioned this at our last meeting, but it's worth repeating. A few weeks ago on a beautiful clear summers evening I was in my brothers garden in Liverpool enjoying a nightcap and as we were chatting I spotted what was quite obviously the ISS high in the Western sky. Well having seen it regularly (but I still get a real buzz from it) I pointed it out to my brother who became decidedly animated, running (which for my brother is an observation in itself!) across the garden to keep it in view. I did tell him that when Nicole was on board last year we did have her flash the lights for us, but I could not arrange it at present. For about a nanosecond I think he believed me.

As a Society we seem to be respected overseas and some of the comments mentioned above have indeed been from overseas. We had a recent visit from a couple from Washington DC, who had heard about us? They were very keen to visit and when they did told us of their plans to do some spectral analysis of the Moon, notably the crater Aristarchus looking for TLP's (Transient Lunar Phenomenon) Again it's great to here from like minded individuals.

So just why is there so much interest in our subject? This is often a question I get asked during talks and meetings. I have my own theory, which I usually answer by showing if possible the famous picture of the Earth from Apollo 8. I am of the firm view that when our beautiful planet was first seen from space it lead to a resurgence in what is now termed global consciousness. This has in turn led to a far greater awareness and subsequent curiosity about our place in the Cosmos. I for one share that curiosity and I am more than happy to talk about it and share my own enthusiasm in what is popularly known as the second oldest profession in the world.

Here's to clear skies and a great new year for us in 2010-11

FOR SALE

The History of the Isle of Man Astronomical Society. By Gary Kewin. £15
A review of the first 20 years of the IoMAS with over 125 pages with over 100 colour photographs, and a letter of introduction from our patron, Sir Patrick Moore. FRS.

IoMAS Calendar £6 The calendar runs from September 2010 to December 2011.

Contact a committee member if you would like a copy of the above items.



(c) Graham Gordon

Splendid show of orchids this year

Anyone who has been to the observatory in the last week of June and the first week in July will have seen what a wonderful display of orchids we have had this year.

Our management of the western field over the past few years has paid off. The Astronomical Society has an agreement with the Department of Agriculture conservation section to manage the fields (section 30 agreement) in a way that protects the rare unimproved grassland type and the flora and fauna that are present. There are heath spotted and common spotted orchids present as well as their hybrids; these are a protected species under the wildlife acts, as are the ground nesting birds on the fields.

When we started the scheme there were a couple of patches with around about a hundred or so orchids present, they now cover the whole area with several large areas of hundreds of orchids.

As well as increasing the population of orchids

the management system has greatly increased many other species including the beautiful small yellow tormentils, the large areas of cats-ear, heath bedstraw, heath and field woodrush and many other species of plants and grasses. There is also a huge increase in the population of insects, especially grasshoppers, with hundreds of them chirping away.

You may have noticed that the grassed area is taped off to prevent people driving and walking over the field. It is important that the orchids are not damaged by trampling or by vehicle wheels at this time. We must not disturb the ground-nesting birds; we get a small extra payment to protect these, in particular skylarks. Many other birds also lay their eggs on the ground such as curlews, pheasants, meadow pipits and other small birds. For this reason dogs should be kept on a lead and not allowed to roam the fields in the nesting season. A lot of these birds now have chicks at foot.

The orchids have now started to go to seed, after July 31st we have to cut the area. This will allow the wild flowers to re-seed naturally. It is part of the conditions of our agreement that we follow the strict management guidelines which do not allow us to plough, fertilise, drain or in any way change or damage the structure of the soil type.

It is also important not to drive on the land in wintertime when the ground gets very wet so as to avoid permanent damage to the soil.

Thank you all for your cooperation in not driving or walking over the field, if we look after the field it will continue to improve and reward us all with some lovely displays for years to come.

James Martin. Secretary.

24th July 2010

The armchair astronomer by Alex Pratt

(This is based on my experiences of fellow astronomers who delight in collecting the latest astronomical imaging equipment, but baulk at the time and effort needed to get good results...)

Once upon a time there was a very keen amateur astronomer who was a member of several astronomical societies, subscribed to a number of magazines and he delighted in seeing the wonderful pictures taken by skilled astro-imagers, such as his hero Damen Pixel.

He was determined to join them in this brave new frontier. He bought numerous books on the subject, spent untold hours on the Internet perusing astro-imaging websites, whiling away long evenings sitting in chat rooms and bidding for items on eBayGum.

He took the plunge, ordered up a shiny new webcam and was delighted when the postie eventually delivered the new toy. It was like Christmas morning all over again! He took the beloved item out of its box and pored over the supporting information, dreaming of getting astrophoties as good as his hero.

Unfortunately, it was cloudy that night - and the next, and the next. :-)

It was very frustrating waiting for a clear sky - and in the meantime he'd seen that someone else was taking even better pictures with another webcam gizmo - and one was for sale on eBayGum! He stayed up all night to outbid his competitors - success!

The new 'whiz' gizmo arrived and it took pride of place in his collection. He drooled over its marketing blurb - he could now compete with the big boys! The sky hadn't cleared to test the old webcam and it hadn't looked as straightforward to use as Damen Pixel had implied - plus the new one was much better anyway - so 'oldie' was demoted away under the bed - in case it came in handy sometime in the future.

And so it went on...

The keen astronomer added more and more gizmos to his collection, relegating the old ones to the 'round to it' store under the bed. He was in his element discussing the finer details of astro-imaging with his peers, but his wisdom was founded totally on things he'd read in books and web pages - he'd never taken a single frame with his extensive collection of astrocameras. It was hard work taking it all outside and everyone knew that you never get any clear nights anyway, so he spent his nights glued to his computer, expounding his knowledge in the astro-imaging chat rooms and bidding for more gear on eBayGum...

His friends were bored to tears hearing him rattle off interminable lists of his vast collection of astronomical equipment, knowing full well that he never used any of it! His 'scopes, webcams and CCDs were very unhappy. They were born to collect photons, especially starlight, but they were being kept in the dark by their owner. :-)

Eventually, someone reported the keen astronomer to the Photon Collection Agency. They gave him a stern telling off and ordered him to choose a practical observing / imaging arrangement from his astro arsenal, e.g. mount, drive, 'scope, webcam or CCD, time-and-date unit, etc. He was told to step into the unknown and *take it outside* and spend time learning how to use it, document it, and practice using it until he could get basic images of some of his favorite astronomical objects.

He spent a few fruitless evenings getting to grips with the gear, and then he was delighted that he was starting to get some nice results.

They would never be as good as Damen Pixel's - but they were *his* photies!

He was very pleased, his 'scopes, webcams and CCDs were now seeing starlight – and his friends were relieved that some of his massive investment was now being put to good use...and they all lived happily ever after...

Alex. R. Pratt (who actually takes his gear outside.)

How 'low' and 'dim' can you get? By Melvyn Taylor

Last year in the Isle of Man I was 'gob-smacked' yet again at the quality of the night skies in comparison to in the Wakefield 'darkness' in West Yorkshire.

Down near the water at Sulby reservoir Sep 22 and with no time spent getting adapted, stars to mag. 4.8 were easily seen, and even the Perseus Double Cluster and the Andromeda Galaxy (M31) were also spotted. On Sep 23 in Laxey with about 18mins getting adapted I was stunned to later check that a star in Cassiopeia of magnitude 6.3 was seen. The star cluster surrounded by phi Cas, NGC 457 (Cas) was seen as a 'smudge' to the un-aided eye. The M/Way in Cepheus is not bright but that was obvious as were parts in lower Aquila and an area in Ophiuchus.

There were other occasions also.

In Scotland, and west of Moy last March 04 I had a really transparent, dark sky even with a Moon that was in Taurus and about half phase. Given some 30 minutes of dark adaption before doing any 'serious' observing I sought out comet C/2007 N3 (Lulin) and though knowing roughly where it was got a great surprise on seeing it admittedly for short moments with the un-aided eyes. In The Astronomer magazine other observers' observations suggested it had a magnitude of about 5.9. Around the same time a drawing check in small areas of Cygnus had the faintest star seen, Fl 7 (Cyg) at mag. 5.8.

During a watch for Perseid meteors July 30 at home a really good sky was followed with about 12 minutes of dark adaption and SAO 230737 at mag. 5.7 was included in the information required for the report. Not many shower meteors were spotted.

Also since I fairly regularly estimate the naked-eye semi-regular variable 30 Herculis, an object that attains a high altitude (over 60°), faintest stars noted near this area in August and September were of magnitude 5.3 and 5.4. That value is about average for 'good' conditions observing from Cross Lane Garden Observatory. As mentioned before there is no proper built observatory, equipment is brought out of the garage and placed according to the preponderance of local lights. (The title sounds good (!) and the site was recognised by HMNAO when occultations were sent to that body).

Given the occasion of good transparency and with either Scorpius, Sagittarius, Capricornus, Aquarius, Canis Major, Pyxis, Cetus and Formax being available I have used binoculars to estimate the lowest (declination) star visible. A test of good transparency is that stellar colour will be noticed in bright stars. It's just an interesting aspect of object searching, often using the Millenium Star Atlas and a 16x70 mounted binocular. From my latitude of N 53.6° stars down to declination S 32° have been logged. From the IoMAS Foxdale Observatory I wonder what naked-eye stars are possible when in the deep-south (?)

New Generator

The committee have decided to purchase a new larger generator for the observatory. The new generator will be 10Kva and will allow use of more powerful equipment such as tea urns, microwave ovens, and electric kettles and to safely use all the lights, computers, telescopes and heating without the worry of overloading the system. We also plan to drive the dome and shutters electrically at some time in the future.

We are extremely grateful to Mr. Colin Hill for loaning us the generator which we presently use. This is still an excellent generator which is very cheap to run and quiet in operation, it has served us very well

since the observatory was built over ten years ago. The main problem with Colin's generator is one of capacity. If we add our entire load together it exceeds the maximum allowable continuous output of about 3.5 Kw, so we have to be very careful in which appliances we use together at any one time.

Once the decision to purchase the generator was made I applied to the Manx Lottery Trust to see if they would help with the Cost. I am happy to say that they approved a grant of £2,500.00 towards the cost. There is a two year time limit on availability of the grant.

The best price for the generator taking all things into consideration was obtained from a local supplier. This also has the advantage of back up and servicing locally.

Because the new generator will be larger than our present one it will need to be housed in its own shed. This will be sited a few meters from the observatory so as to cut down on noise and vibrations which can affect observing instruments. As it will be sited in the countryside it is necessary to apply for planning approval from the Department of Infrastructure. This was discussed at committee and after drawing up the plans, I submitted the planning application, which has recently been published in the press. The yellow public notice is displayed at the end of the observatory lane.

Once we get approval we will need a work party to help with construction. If you would like to help we would be grateful for any help available.

If you wish to help, please contact me once the plans have been approved. James Martin.

Electrical Safety

As required by our insurers, the observatory has been checked for electrical safety by SCS Ltd. All remedial work was carried out by SCS Ltd and a certificate of electrical safety received. The next inspection is due in three years time. James Martin, Secretary

Contact:

Newsletter Editor: Dave Storey 38 Hailwood Avenue, Douglas, Isle of Man, IM2 7DG
dave.storey@iomastronomy.org Tel 617084 or 495283

IOMAS COMMITTEE

Chairman: Howard Parkin ☎ 625755 e-mail howard@iomastronomy.org

Vice Chairman: Gary Kewin (KEY) ☎ 622241 e-mail gary@iomastronomy.org

Secretary: James Martin (KEY) ☎ 842954 e-mail james@iomastronomy.org

Treasurer: Gary Corlett (KEY) ☎ 611737 e-mail garyc@iomastronomy.org

Membership Secretary: Dave Storey (KEY) ☎ 617084 or 495283 e-mail dave.storey@iomastronomy.org

Committee Member: Angela Bridson e-mail angela@iomastronomy.org

Committee Member: Kevin Deakes kevin.deakes@iomastronomy.org

Committee Member: Graham Gordon. graham.gordon@iomastronomy.org

Committee Member: Mark Henthorne ☎ 491414 mark.henthorne@iomastronomy.org

Committee Member: John McDermott john.mcdermott@iomastronomy.org

Co-Opted Committee Member: Colin Hill e-mail colin@iomastronomy.org

Co-Opted Committee Member: Glyn Marsh e-mail glyn.marsh@iomastronomy.org

DOME PHONE
464926

www.iomastronomy.org

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.