Stargazey Pie!

A slice of Highlands astronomical life!

Tues 7th Apr 2009

Introduction

Do AGM's frighten you or do they inspire you and fill you with positive thoughts for the future? I hope that HAS AGM's do the latter – this one certainly did for me! As well as the AGM duties, the April meeting also had plenty of discussion and a DVD all about humanity's greatest adventure – walking on the Moon.

- **SIGMA IYA Meeting.** There will be a joint HAS/SIGMA meeting, open to the public, in Nairn Community Hall 19:30 on Fri 8th May. The UK Director of the International Year of Astronomy (and former Culloden Academy pupil) Steve Owens will give a talk about refuting astrology entitled "The Thirteenth Sign: An Astronomer's Journey into the Astrologer's Lair". Sounds like Sir Patrick Moore would approve.

- **4000 Years of Astronomy in the Highlands.** This was a most successful week-long festival organised by HAS, and well attended by Society members and the public. Media coverage was superb and has generated new interest in our club and activities. The event took a lot of organising, so we would like to thank all those who helped organise the ambitious project, particularly Pauline Macrae, Pat Williams, Arthur and Lorna Milnes, Pat Escott, Donald Noble, Ian Drysdale, Andy Ferguson, Trina Shaddick, Maarten de Vries, Eric Walker, Linda Moncur, Tim Schroder and all the others who played a part.

  A full report can now be read on our website, which has seen a lot of activity over the last month. The site may have a new look but the address is just the same as it's always been: www.spacegazer.com

- **Observing Sessions.** Regular sessions are no more, due to the totally unforeseen eventuality of something called "light evenings". However, although none are planned at this stage, this will be reviewed in light of (no pun intended) the Lunar 100 observing challenge mentioned elsewhere in this newsletter. Updates on Summer Sessions will be announced on the website front page. The next season's opening night is planned to be after the open day on Sat 19th Sept.

- **Seeing Stars.** "Ploughing With A Bear" by Pauline Macrae is now available to read on the website. It features the asterism of the Plough within the constellation of Ursa Major the Great Bear. It was printed in the Friday 3rd's edition of the Inverness Courier.

- **IYA Webcasts.** Eric is broadcasting from his home observatory throughout the year. Visit http://www.ustream.tv/channel/the-cosmos-cam to see when the next broadcast is planned, or email him to be automatically notified of webcasts as they happen. Recent Moonwatch broadcasts have received viewers from Tunisia, Barcelona, California, Wales and even Cromarty, so great is their appeal.

- **HAS Messier Challenge Update.** Please let a member of the Committee know if you are approaching completion of one of the Messier Challenge Sheets, or if you need some help to find particularly obstinate objects. The crystal and platinum trophies take a while to make (hand made you see) so it's best to get notifications in early. There is fierce competition amongst several members (but

I shall sweep them all away before me) as they hunt down the last few Bronze objects before progressing onto the Silver lists.

- **Lunar Postcards.** Still available and still only £1 each! Yes, for a mere £5 you could have five (count 'em – yes, FIVE!) of them to flash around at parties and leave lying conspicuously on your coffee table. A sure fire ticket into high society of you ask me… (NB. Other multi-buy deals are available – two for £2, three for £3, five for £5 etc)

- **More Moon.** The Lunar 100 is being revisited. Improve your lunar observing skills this summer and take up the Lunar 100 challenge. 100 lunar features are listed and marked on a Moon map for you to find and tick. All you have to do is look for them – what could be more fun and challenging? The information sheet and special Moon map are downloadable from the Astronomy Projects section on the "Documentation" page of the Society website.

The Main Event: The HAS AGM

Most organisations have to go through this, and the Highlands Astronomical Society is no exception. It is particularly encouraging to see so many people turning up for the AGMs, and this in itself does make the event more interesting as more opinions can be voiced, which in turn helps to steer the Society in the direction the members want it to go.

Prior to the meeting, several documents were mailed to the members by email or regular post. These included the AGM 2009 Secretary's Annual Report, 2008-2009 Trustees' Report, AGM 2008 Minutes and an agenda for the 2009 AGM. These reports have been uploaded to our website and can be found here:

AGM 2009 Secretary's Report:
http://www.spacegazer.com/documents/Society%20Documentation/Secretarys_Report_AGM_2009.pdf

2008-2009 Trustees' Report:
http://www.spacegazer.com/documents/Society%20Documentation/Trustees_Report_2008-09.pdf

AGM 2008 Minutes:
http://www.spacegazer.com/documents/Society%20Documentation/Minutes_AGM_2008.pdf

Agenda AGM 2009:
http://www.spacegazer.com/documents/Society%20Documentation/Agenda_AGM_2009.pdf

The minutes of the 2008 AGM were passed with no comments made. The Trustees' Report and Secretary's Report were then dipped into by Eric Walker, with particular mention being made of the huge number of events that the Society organised. Various aspects of the Society were mentioned, including our public profile, the public viewing sessions organised at the new JSL Observatory, and the introduction of new entertainments for the membership, notably a trip to the Royal Observatory of Edinburgh and the first ever Society Christmas Dinner. Quite amazing was the fact that the average attendance figure for our 2008 meetings was fifty people!

Mention was made of the fact that John Gilmour had only served a partial term as Chairman, and was succeeded temporarily by Maarten de Vries and then by Eric Walker.

The report was passed after a very few comments (although it was noted that Eric had put the wrong date at the bottom – now corrected)!

Next was a summary of the Treasurer's Report by Pat Escott. There was only one small error mentioned by Pat, and that was that the Estimated Market Value of the observatory quoted at the end of the report should have *included* the figure for Astronomical Equipment at cost, and that it was not to be considered an additional value. The only other point of financial interest was that the Family Membership fee would decrease from £41.25 to £41.00 (to streamline the figures).

Comment was made regarding the variety of contributions and donations to the Society and the ways in which the club has raised funds for the Observatory and its associated running costs. The recent Mini Festival resulted in £47 being deposited in the Society's collecting buckets, and so far £41 has been left in the Observatory Donations Box (expertly hand-crafted by Lynn Robinson).

The report was also passed.

The Elections

The positions of Chairman, Secretary and Treasurer were all open, though some names had been put forward. After being proposed, seconded and voted for by a show of hands, these positions are now occupied by the following members:

Chairman: Eric Walker
Secretary: Pat Williams
Treasurer: Paul Jenkins

Three cheers for them all, and a great big Thank You to their predecessors for all the work they have done over the last couple of years. It was a very active and difficult time for office bearers and the Society has come out of it very well, thanks to their great efforts.

Discussions

There followed an open forum discussion in which members were invited to raise any topics that they wanted to discuss with the new office bearers and the other present members. Topics included the last season's observing sessions at the JSL Observatory, and how some of the problems that had presented themselves at the sessions could be addressed. It seemed to be generally felt that the first season of observatory activity had been a good start, and had presented us with a few opportunities to fine-tune the observing experience for visitors.

The use of broadband Internet by members, and email communications within the Society, were also discussed. Is email communication preferred or just tolerated? Is there too much? Is it necessary at all? These and other questions were raised and chewed over.

The progress and possible development of the Youngstars junior group was also brought up. Following discussion, the general opinion was expressed that it might now be time to sit back and assess how successful the venture has been, and discuss whether there are ways in which it can be improved or developed.

It was asked if the Society would return to the custom of having one meeting per year as a dedicated "Equipment Night". The opinion of committee members was that the equipment nights were perhaps a little bit stale and that attendance to these events had dropped off. However, a change of format, perhaps with particular telescope types being demonstrated by their owners at breakout sessions would make a welcome and probably more interesting format, resulting in a good opportunity for "de-mystifying" the tool of our trade – the telescope – to newcomers and veterans alike.

The discussions were good natured and positive, and resulted in much conviviality at the ensuing tea break! The next year looks to be a good one.

DVD
'Magnificent Desolation – Walking on The Moon'

Courtesy of Andy Ferguson, we enjoyed this spectacular DVD after the tea break. It told the story of the challenges that faced the NASA Apollo missions that allowed humanity to reach out, grab Moondust, and bring it back to our home planet.

Actually reaching the Moon was difficult enough, what with working out the launch trajectories and intricacies of solar system travel, and being able to provide reliable means of controlling the vehicles as they hurtled through space towards their distant objective. Men had to live inside those vehicles, and once they reached their destination they would have to crew a separate module and control its descent to a completely unknown surface – then land it safely!

Once there, exploration would beckon, and the very first human footprints would appear on our only natural satellite. Needless to say, the Apollo missions did provide us with those footprints and with numerous technological breakthroughs that humanity has reaped the benefits of in the decades since those groundbreaking missions.

The DVD featured many CGI (Computer-Generated Imagery: 3D computer graphics usually used for special effects in films) sections that showed exactly what it would be like to carry out the activities of the first men to walk on the Moon. To skim the lunar surface on final descent, suit up in the million dollar spacesuits that were needed for survival and exploration on the alien surface, and to actually open the Lunar Module door and see the vast lunar panorama filling the view. Other sections of the film were from real footage. The combination was very good, as it gave an impression of the parts of a lunar mission that take place in the background and that everyday people on Earth are not aware of.

Some 'what if' scenarios were enacted using the computer imagery too, including one that featured a possible accident in the lunar rover combined with communication breakdown between its two space-suited occupants. A long trek back to base ensued – a race against time due to the ever-dwindling supply of air in their tanks. In space no-one can hear you suffocate, except your colleagues and friends at NASA headquarters more than a quarter of a million miles away of course.

Only twelve men have walked on the Moon's surface, and the film explored the possibility of that number increasing in the near future, perhaps with a manned scientific base or even a colony. It focused on a group of young people and teased us with the idea that some of those might one day be the next generation of lunar explorers. With interest in the Moon undergoing a revival not only at NASA, but also in many other countries including China and India, it may very well happen in the not too distant future!

The DVD was timely (see Lunar 100), thought provoking and exciting, and even had some humour in it, along with a memorable commentary by Tom Hanks, star of Apollo 13. A big thank-you goes out to Andy for letting us enjoy this DVD from his fascinating collection!

Highland Skies – April 2009

Things change in April. The sky gets darker later on in the evening and we have fewer hours of astronomical darkness in which to hunt down our targets. But it's not all doom and gloom. If you are still in the process (as many of us are) of completing your Messier Challenge sheets, the April sky brings many of the harder to find objects within your grasp – you just have to stay up later to see them!

The constellations of Leo and Virgo will give up their galaxies quite easily during April, and other Messiers, like globular cluster M5 in Serpens, will be easier to find as they get higher in the sky later in the month. But the Messier Challenge sheets are not the only observing project that you can take part in. Another

"challenge" is available in which 100 targets can be found all within half a degree of each other! And none of them are very faint either, with most being detectable in small to medium telescopes! What can I be talking about?

The Lunar 100, of course! The L100 is a list of 100 features that are visible on the surface of the Moon. It was originally prepared by dedicated Selenologist Charles Wood, writing in Sky & Telescope magazine, and has become very popular with people wanting a relatively easy observing challenge that can be completed as and when time allows. It is not only a simple checklist though, as one of the intentions of the list is to give a basic understanding of how these different types of features were formed on the Moon.

The list includes maria (the plural of 'mare'), walled plains, domes, mountain ranges, impact basins and solitary mountain peaks as well as the more common craters. As well as the list of features, there is a special Moon map that has the positions of the features marked on it. The L100 info sheet also has basic information about many of the different features, and much more can be found out about them on the Internet or in the pages of your favourite Moon-book. Personally, I recommend the "Atlas of The Moon" by Antonin Rukl, or Peter Grego's "Moon Observer's Guide". The regular astronomy magazines all have lunar sections in them too, so further details can be gleaned from them.

So where do you go to get the required fact-sheet, list and map? Why, no further than the front desk at your Society meeting! They should be available to take away with you at the next few meetings or they can also be downloaded from our "Documentation" web page.

And finally, what are the advantages of this little project? Well, the Moon is quite easy to find – although perhaps not always as easy as you might think! At the moment the Moon is quite high in the sky during the night, but in summer it will be lower down. This is due to its passage along the ecliptic – a line that passes through the zodiac constellations and shows the path that the Sun and planets (including Luna) take across the sky. In the summer months the Moon will be lower in the sky during the night because of this, but the ecliptic is higher in the sky during the day. So when you see the Moon during the daytime in summer, it will be as high as it is in the night sky now! Confused? I am too, but even Sir Patrick Moore admits that lunar orbital mechanics is one of the most complicated things in observational astronomy!

Anyway, the other advantages are that the Moon can be observed both at nighttime and during the day, depending on its phase and the time of year. The 100 features are all quite easy to find on the map, though you will certainly need to spend some time at the eyepiece to observe quite a few of them, and higher magnifications and favourable seeing conditions will be required for quite a few! Another advantage is that if you complete the project and actually read up a little on the features that you observe at the eyepiece, you will be well on the way to understanding the geology of our nearest celestial neighbour.

Next Time

The next meeting will take place on Tuesday 5th May and the speaker will be Howie Firth, fresh from his ventures at the recent Mini Festival, stepping in to replace Jim Wild of Lancaster University who has had to withdraw. He will be speaking on the topic of "Red Sirius" – sounds exciting! The meeting will start at 19:30 at the Green House, and will be preceded by the junior group ("Youngstars") at 19:00.

The usual features of tea, coffee, biscuits, awarding of Messier Certificates, discussion and general astro-buzz will all be there, so don't be late! In the meantime, make the most of the last few weeks of reasonably dark skies, and start hunting down those elusive summer objects while you have a chance to do so!

Antony