



Ayrshire Astronomical Society

December 2013

Issue 44, 13/14

As we run up to the Christmas break, your Committee would like to wish all the members old and new a very Happy Christmas and prosperous New Year. We hope that Santa brings you all lots of astronomical goodies, and clear cold skies to take advantage of during the break. We look forward to 2014 with great excitement, and to helping the Society continue to grow.

Roger is planning an observing event in Ayrshire to coincide with the BBC Stargazing Live programme. More to come in January. Watch this space!

Don't forget that our gathering this month is a couple of weeks earlier than usual. We'll be meeting at the Tree House in Ayr for our annual Christmas dinner, on Monday 16th December at 7 p.m.

*I would like to say thank you to the contributors to the newsletter this month, Paul and Allan. If **you** have something to contribute, feel free to send it to stephanie@galacticpoint.com.*

*See you all on Monday! **Stephanie***

News

As announced at the last meeting we intend to hold a starcamp at the walled garden caravan park near Maybole on the weekend of the 1st of March. This coincides with the new moon. You will be able to bring a campervan, caravan (like Graham, a soft southerner), or pitch a tent (like me, a hard highlander). Prices will be in the January newsletter. You can also come along to observe if you don't fancy staying, although there will be a very small charge for the use of the facilities. The campsite's walls and surrounding trees shield it from any local light pollution,

and it has good views southeast into the Galloway forest park.

The site has good toilet and shower facilities, and a warm room. Deposits will be required to be paid before the event for both campers and observers, and the details for this will be in the next newsletter.

We will take numbers at the next meeting, but if you are interested by all means contact myself or Paul directly as spaces might be limited. Fingers crossed for



clear skies.

Allan McIntyre

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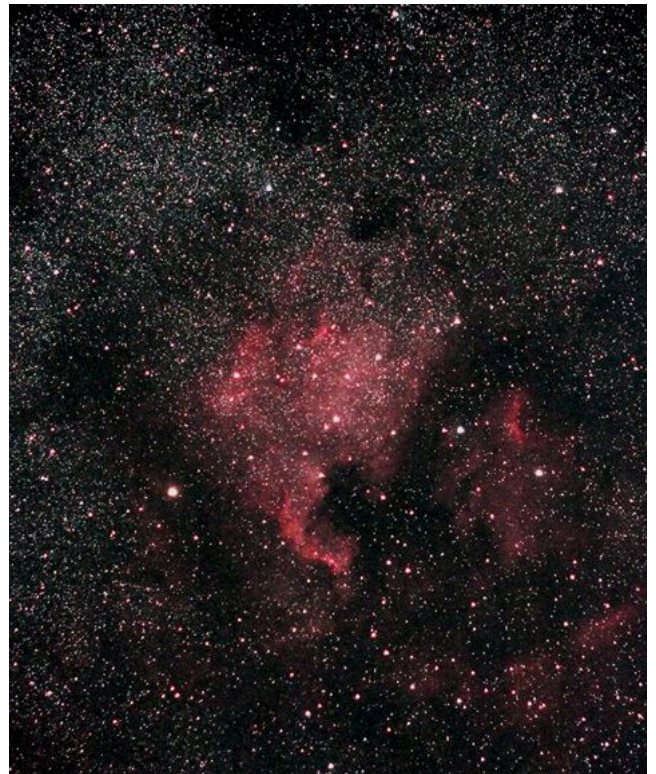


Wide Field Photography

Greetings from the astrosshed. Well winter is here, that's for sure, but clear skies have been few and far between this season. So, during these weeks of cloud I decided to modify my scope rings, and add a new bracket to carry an 80mm refactor for guiding (thanks Kenny for the alloy). So, what to do now my main scope is out of action? Wide field imaging of course! Using my DSLR; but I have to find a way to attach the camera on the NEQ6 mount. Heath Robinson time I think, and after a quick rummage around in the shed I found a suitable lump of wood, a few elastic bands, duct tape, and some wood screws, bingo! Now to take some images... wide field pics can look really good as they cover a large field of view, like the Milky Way or a large nebula, plus no need for a telescope. Let's start with the Milky Way, you will want to use a wide angle lens, the

18-55mm kit lens that usually comes with DSLR's will do just fine. You're going to want to use the 18mm end, but to make focusing easier wind the zoom up to 55mm. Get your focus really sharp on a bright star, then wind it back down to 18mm, the focus will still be spot on. Next, adjust the camera's ISO, try 1600 or one or two levels below maximum. Pick your target and try different lengths of exposures. The tracking on an EQ type mount is more accurate when using lower magnifications, so by using an 18mm lens you should be able to get 2-3-4 minutes exposure. These settings are just a rough guide; adjust and experiment with your camera; you might be amazed at the results!

Paul C @astrosshed.





Tubes (and Pooper Scoopers) Out at the Darvel Astro Shed

Over the past few weeks I have struggled to do any observing for one reason or another, so when Paul said he had spotted a weather window for the Friday night before the new moon I was keen to get up to the astro shed at Darvel. Come Friday though, it looked like seagulls had messed all over the weather window as rain and wind lashed Ayr all day. But Paul was confident that his pet caterpillars were right, and the astro shed was open for business.

Paul's garden is only big enough for four scopes at a push, so if you see an invite on Facebook you have to grab it quick. So, Willie, Robin and I had all booked our spaces. The sky at Paul's is a lot better than down here in Ayr, and the hospitality is very good. Stacey's hot chocolate is just magic.

I arrived just after Willie, and as Paul was popping in and out to work he left us to get set up. In a small space it's important to make sure everyone has room to work round their kit, and not have a clothes poles, or trees in the way when you go to polar align your mount. So, Willie and I set about clearing the leaves away from our chosen spots before setting up. I was beginning to think Willie had let off, and not let on when I suddenly realised that those innocent piles of leaves had been hiding a dark (brown) secret. Bella the astro dog had been laying mines, and damn I had trod it all over the Axminster in the astro shed, argh the reek. Bad start to the night, but more was to follow.

Astronomy involves a lot of bits and bobs. If you're not careful you can easily forget those smaller items such as essential eyepiece, leads, charts, battery packs, filters, quality biscuits etc., in the rush to pack your scope, mount and tripod (of course you wouldn't forget them, eh?). Except Willie did, and it left him feeling like he had suffered a senior moment when he realised he had forgotten his mount. Oh dear. This however meant that there was more room for the three scopes (and that I didn't have to go near those darn leaves in the first place).

When Paul arrived back, Robin appeared and it was all systems go for a start to the McIntyre Winter Challenge. Paul set his camera piggy back style on top of his scope to take some nice widefield shots while we were observing. Both him and Robin were using GOTO systems, while I, of course, was simply using handraulics.

First up was the Pleiades which gave me a chance to test my new 32mm EP. I like open clusters, and this is great for fitting as many stars as possible in the field of view, and it's also good for star hopping as its wide field makes it much easier to find objects. Next up was the easy double star Almach followed by Beta Monocerotis which is easy to split into a double, but much trickier to split into three. I could just make out that the very close pair was not just one star, but I couldn't quite split it. Robin's Maksutov was

just the job though, and split them into three. At this point Stacey arrived with hot chocolate, and marshmallows... mmmmm! And also a verbal rolling pin for Paul for not cleaning up after Bella. Visitors are always welcome to the astro shed, and of course admission is free, but for some reason both Willie and Robin felt the need to bring loads of quality biscuits with them, and we never even asked them to do so. But it seems only fair that since they have started a tradition that any other visitors should do the same. Of course they have to be QUALITY biscuits, not your value custard creams okay? See where we are coming from?

Warmed up and stuffed full, it was time to get back to the observing. M50 now, and a little trickier as one of my guide stars Sirius was behind a chimney. Quite a spread out cluster. M43, I had never payed attention to this object as last year was my first season, and its close proximity to M42 meant I looked at it instead, and passed it by. It's quite obvious when you find it but the glare of M42 can hide it a little. M79, a globular cluster, was frustrating as I spent ages trying to starhop to it only to find it had dropped below Paul's fence. Finally up was NGC 1535, a planetary nebula, and quite a faint one, even in Paul's scope it was just a tiny blue dot. Even after some time trying to find it I wasn't convinced that I had got there. Tired eyes at 2 a.m. can mean stars look out of focus, even when they are not, and they can become all sorts of faint objects if you want them to be. Time to pack up, it will still be there another day. All in all a good start to the winter challenge.

Merry Christmas all.

Allan McIntyre



Christmas Presents for Stargazers

As is the tradition, I have explored the Internet for hours to find the best presents for amateur astronomers. This year, as previous years, I have found the craziest, silliest gifts on offer. May you find one of those under your Christmas tree!

Constellation Mug

Well, they do pretty much what the title suggests. It needs to be full with a hot drink to reveal the constellations. The rest of the time it can sit on your desk, and keep you guessing.

I think it's pretty fun way to learn the constellations.



Cold



Hot



Moons and Planets Memory Game

Can you instantly identify Phobos, Deimos, Ganymede or Titan by sight? This memory game is here to help you learn.

There are 46 chunky discs, and a guide book describing all the objects represented in this game. Many of the images were taken by NASA spacecrafts.

Alternatively, should you not want to challenge your memory, these can (if you really must) be used as very pretty coasters.

IPhone Gloves

This one if for Roger. No need to make the hard decision between cold fingers or not using your mobile phone. These gloves keep you warm AND let you use your phone. It's a win-win gift!



Face Warmer

I have to admit that this one is a little bit 'out there'.

However, when out observing, we take care to cover up, but we forget the face. This lovely knitted 'Alien' would send Sigourney into a rage.

The only problem I have with this gift is that it's not really easy to look through a telescope while wearing it, or drive, or drink, or eat a biscuit of quality.



Moon in My Room

And finally, the best gift of all, just for Paul!

This beautiful decoration is a representation of the moon which can be illuminated through the 12 different lunar phases.

It can go through the phases automatically or by manually controlled. This is the perfect gadget to help you fall asleep.

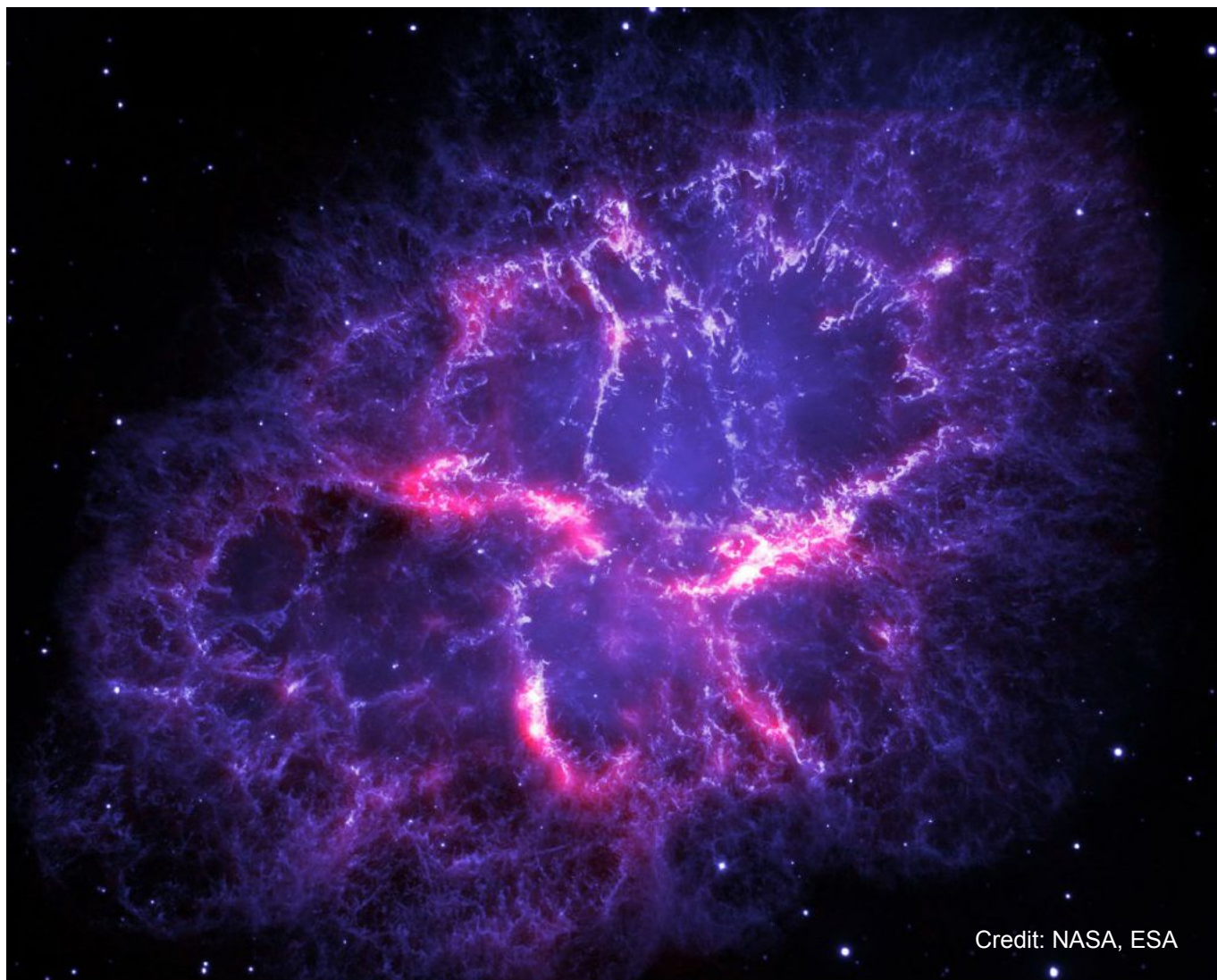




Programme of main speakers for 2013/2014 Club Meeting Nights

30th September	"The Scottish Dark Observatory"	Robert Ince
28th October	Beginners Night	
25th November	"Home Observatory"	Graham Longbottom
16th December	Christmas Dinner	
27th January	"Start Gazing"	Paul Cameron & Allan McIntyre
24th February	"Scottish Astronomy: A Historical Perspective"	John Pressly
24th March	"Nano-spaceships and Their Astronomical Applications"	Robin Sampson
28th April	TBC	Dr. Giles Hammond
19th May	AGM and social evening	

Argon in Crab Nebula



Credit: NASA, ESA