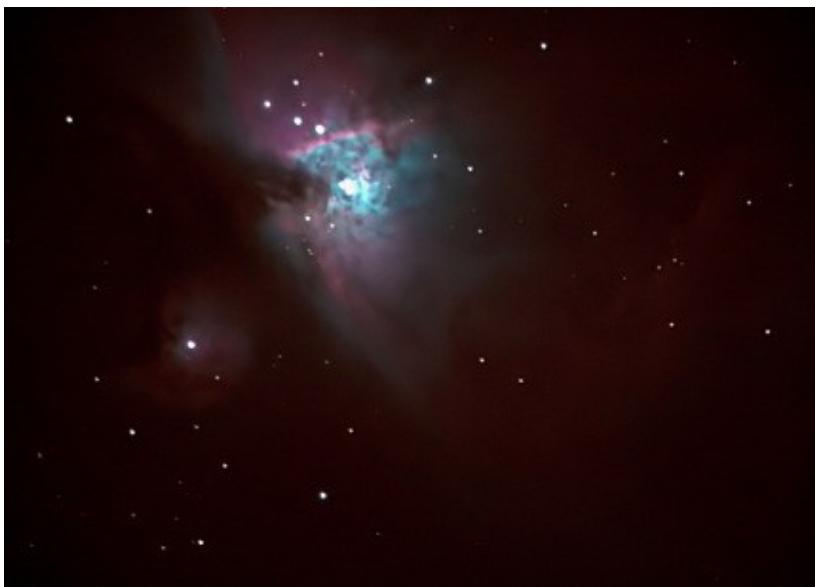


Thanet Astronomy Group

Astronomy for Everyone in Plain English

NEWSLETTER

November 2014



This space is reserved for promoting member's businesses.
You can place an advert here for a donation to the group.

Minimum Donation value is at the discretion of the Executive committee.

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About the Cover Picture



Picture by George Ward

M42 The Orion Nebula

This is a picture of the Orion Nebula also known as M42 (from the Messier catalogue).

Charles Messier was a French Astronomer who compiled the "*Catalogue des Nébuleuses et des Amas d'Étoiles*" ("Catalogue of Nebulae and Star Clusters"). This is an excellent guide to these objects and Every budding Astronomer should have one. The latest edition was 1966. See <http://messier.seds.org/xtra/history/m-cat.html>

From the original Catalogue:-

5h 23m 59s (80d 59' 40") -5d 34' 06"

(March 4, 1769) `Position of the beautiful nebula in the sword of Orion, around the star Theta which ii contains [together] with three other smaller stars which one cannot see but with good instruments.

This Nebula is bright enough to be seen by eye even in our local light polluted skies. You will need to find Orion the hunter and work down the sword hanging from the left side of Orion's belt (the three close stars in the middle). You will find M42 at the lower end of the Sword.

It looks by eye like a small dim but fuzzy star. Through binoculars you should be able to see the Nebula expanded into a glowing area of light. With a telescope details will begin to reveal themselves. If you have a camera adapter then you will be able to take pictures and because the camera can build up the image over the time of the exposure the picture will show the colours.

M42 is about 1,344 light years away and is the closest area where new stars are forming to us. It is huge in size and believed to be about 24 light years across. There is about 2,000 times the amount of material in our Sun in M42.

As one of the most studied objects in the sky, it has shown us a lot about the way stars and solar systems are formed.

Danny Day.

Thanet Astronomy Group Contact Details

Executive Committee

Chairman	Daniel Day	01843 228 904
Treasurer	George Ward	01843 292 640
Secretary	Gill Palmer	07543 942 245

Committee

Volunteers	George Cozens	07970 181 395
Members	Sheila Bull	07791 892 057
Newsletter	Carol Butt Email :	07583 332 020 butt.simon@gmail.com
Library	Janet McBride	01227 364 092
Web Site	Danny Day	01843 228 904

Member's Meeting Dates and Times

Thanet Astronomy Group **Member's Meetings** **Dates and Times**

5th November 2014 at 7.30pm

3rd December 2014 at 7.30pm

7th January 2015 at 7.30pm

4th February 2015 at 7.30pm

4th March 2015 at 7.30pm

1st April 2015 at 7.30pm

6th May 2015 at 7.30pm

3rd June 2015 at 8pm

1st July 2015 at 8pm

5th August 2015 at 8pm

2nd September 2015 at 8pm

7th October 2015 at 7.30pm

All Member's meetings will be held at the West Bay Cafe,
Sea Road, Westgate-on-sea, Kent. CT8 8QZ

What we did last month

Saturday Outreach 1-4pm West Bay Cafe

Our outreach project is going from strength to strength, with loads of support from members and those that have telescopes bringing them along. Some members have commented that they are chatting with the public at the meeting and are passing on information they never realised they had. The Plan Is Working !! :-)

Promoting Astronomy to the children in our area

Our first trip was a return visit to the 8th Ramsgate East Brownies, who we first met in July 2014. On our return on Friday 3rd October, we found the girls had been very busy as they had made their own simple sextants. This enabled them along with a compass to measure the position of the Stars in the sky and use that to identify what they were looking at.

The next night, Saturday 4th October, it was the turn of the Local Beavers Groups of the whole of Thanet. They were having a Space Themed Sleep Over at St George's School. There were nearly 80 children altogether, between 7 and 10 years. We have a presentation that covers all the requirements for their Beavers Space Badge. The first half of the evening was taken up with the presentation, then we split into three groups which we rotated so everyone got a turn of each activity. Group 1 using Stellarium to learn about the night sky. Group 2 Learning about the Solar System by play acting the positions of the planets and moons. Group 3 were outside using the telescopes looking at what they had learnt in the presentation. The Evening ended with Questions and Answers. That is; we were asking the Questions ! The Beavers demonstrated very clearly that they had gained the knowledge required for their badges.

Promoting Astronomy in the Community

On Sunday 5th October we attended a function at Trinity Church Hall, Cliftonville which was organized by the Thanet Community Support Partnership. Danny, George C ,Gill and myself (George W) put in an appearance on what turned out to be a very nice day, both weather wise and socially. There were many different organizations offering a wide variety of activities for us old'ns. It was extremely well organized, and some very nice refreshments were offered free of charge.



With a couple of telescopes set up and a wide variety of our astronomy literature arranged on the table, it was not long before we attracted interest.

At the end of the day we had some more names to add to our contact list as well as a couple of requests to run some presentations in the new year. We were also asked if we would be interested in attending similar functions in the future.

Tuesday 28 October our last outing of the month was to the Christchurch Wives Group at Christ Church, Westgate Bay Av. Westgate-on-sea.

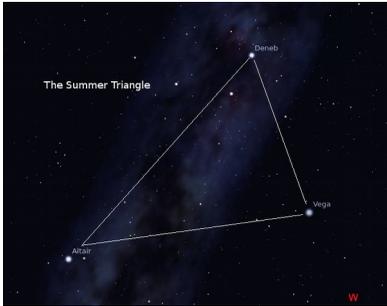
We gave a talk on the history of astronomy and a Q&A after the talk including a tour of our corner of the Milky Way, using our planetarium software. We looked at Jupiter and its Moons, Saturn and one of its Moon's Titan; our Moon, and several of the most beautiful Nebula, M42, M13, M1 etc.

The word is spreading !
George W.



Junior Members Page

The JAC and Gill club went Stargazing again on the evening of Monday 27th October 2014. By the time everyone had arrived there were 10 of us Juniors at the West Bay Café with about 20 adults.



The Summer Triangle (an Asterism)



The Constellation of Cygnus

We were very lucky again as the sky was really clear. We could see The Summer Triangle really brightly over the sea. [The Summer Triangle is an *Asterism* (a recognisable pattern of stars, less than a Constellation)]Ed.

There was Cygnus the Swan flying right across The Milky Way, Aquila the Eagle in the bottom corner and Lyra the Harp playing in the top corner of The Summer Triangle.

I don't know why it is still called The "Summer" Triangle because it is actually the middle of Autumn!



The Constellation of Lyra



The Constellation of Aquila

George Harvey.

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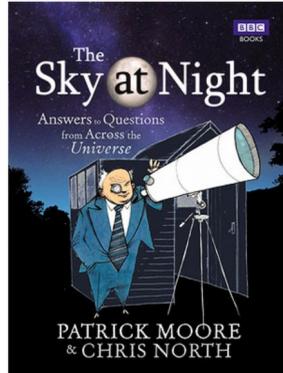


Book review

This month I'm recommending, *The Sky at Night*, by Sir Patrick Moore and Dr Chris North.

I bought this book a year ago, It's a compilation of letters that have been sent to the father of modern astronomy, Sir Patrick Moore, over a period of more than 50 years, while hosting his record breaking TV series of the same name.

Both he and Chris North came up with the idea of collating all the letters that they have received and producing a book from them.



Letters were received from all over the world, from astronomers and stargazers and with many enquiries from children of all ages.

It has more than 450 pages containing just about every question imaginable, you won't find many pictures, but there are a number of drawings and diagrams, the rest is just crammed with text.

The cost varies, it has a cover price of £14.99, but I bought mine for £5 at The Works at Wyevale Dumpton.

The book is divided into sections covering Observing, The Moon, The Solar System, Stars and Galaxies, Cosmology, Other Worlds, Manned Space Exploration, Space Missions, The Bizarre and Unexplained.

It ends with a chapter about Sir Patrick Moore and *The Sky at Night*. It also includes the usual glossary explaining the technical terms. Very informative and a darn good read.

George Ward.

What's in the sky this month

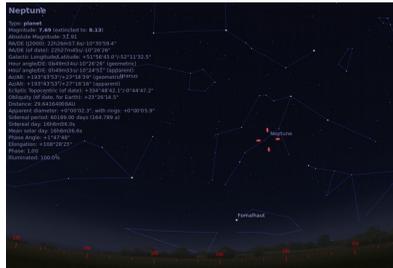
Planets (Uranus, Neptune)
Open cluster (Pleiades)

By Telescope : At 08:00pm on Saturday 8th November

Look south (Az 149°) and up (Alt 40°) you will be looking at Uranus ! It will be too dim and too far away to see by eye at a magnitude of 6.07. But with a little help, binoculars or a telescope with a little luck you'll see a small green/blue dot. It's too far away to see any surface detail at 2.5 billion km.



Uranus



Neptune

By Telescope : At 08:00pm on Saturday 8th November

Look south, (Az 193°) and up (Alt 27°) you will be looking at Neptune ! It's even dimmer than Uranus at a magnitude of 7.69 but have a go. Neptune will be a blue dot. It is 4.4 billion km away.

By Eye : At 08:00pm on Saturday 15th November

Look east, (Az 96°) and up (Alt 37°) you will see the Open Star Cluster Pleiades. Also called "The Seven Sisters" or M45.



Pleiades



Pleiades Close up

Through binoculars or a telescope, Pleiades looks like a nebula. This is because Pleiades is passing through an interstellar gas cloud that glows blue in the light of the stars. Pleiades is 440 light years away.

George Ward.

Member's Page

Ian and Linda Edenden:

Lin has always been interested in astronomy and Ian decided to buy Lin a telescope for her birthday.

One day they visited FI Telescopes to buy some parts for Ian's model cars and came away from the store with a telescope – a slight difference you could say. Because of Lin's disability they decided to buy a Go To Celestron Telescope as this would be easier for her to use.

They set the telescope up and 'messed about with it a bit' looking at birds and trees and then began to use it at night. Lin said it was 'amazing seeing the Moon and its craters' and she 'loved it from the beginning'.



However, they soon realised that they needed more advice as they were novices and knew next to nothing about Astronomy. Ian looked on the internet and there were three clubs in their surrounding area. Mid Kent, Ashford and Thanet.

When they looked on the Thanet Astronomy Club's website they thought it was 'amazing – just fantastic, very informative with a great picture gallery' and even better – it was by the sea.

When they came to the first Saturday afternoon meeting at the West Bay Café, Lin said 'Danny made us so welcome – he is so knowledgeable; my head was muddled when I left with so much information I knew I had learnt something'.

At first I didn't understand gravity etc and this became clear because everyone at the Club uses plain English the correct words so you can understand everything.

Everyone talks to you and doesn't mind what you ask or how many times you ask the same thing so you can understand better. Everyone listens!!

The kid's group is great and shows the Club includes everyone.

Lin and Ian decided to join as Members of the Club and have attended a couple of Members monthly meetings – Lin said 'it's really informative and everyone joins in – there are no clichés and I have made some really good friends'.

Ian has taken a great interest in Astronomy now as he was not really interested before and he loves tinkering about and trying different things, he constantly looks on ebay for 'gadgets' and researches everything on youtube.

Linda talking to Sheila Bull;
Members Secretary November 2014.

Telescope Review

My grandson George was given a telescope for Christmas, I eventually took him to West Bay on a Saturday afternoon and Danny set the telescope up for him and showed us how to use it. George was really interested in astronomy and that got me interested, so I decided to buy a telescope, but which one was the question?

The more I looked at web sites and in the shops the more I became confused as to what was right for me. I sought advice from Danny, and he pointed me in the right direction. It was a choice between two, I decided on the bigger one, a Sky Watcher 150P with an EQ3-2 mount.

The EQ3-2 mount is a joy to use, being very smooth, accurate and versatile as to which direction you want the telescope to turn,

The Skywatcher 150P. This is a 150mm, 5.95" (D=150mm) Newtonian Telescope with a focal length of 750mm (F=750mm) that makes it an (f/5). It's a Very Nice Telescope.

The mount is Skywatchers EQ3-2, which means it uses the tripod from the EQ2 mount and an up-rated EQ3 Equatorial mount. This gives it much better stability and positioning.

The almost 6" Parabolic mirror captures enough light to enable it to make good use of magnifications up to 300X without losing too much detail in the image. It comes with two eye pieces 10mm and 25mm, and a 2X Barlow.



You can calculate the magnification of a telescope very easily. Just divide the Focal Length of the Telescope (F=750mm) by the Focal Length of the Eye Piece (the 10mm or 25mm).

$750 / 25 = 30$: So with the 25mm eye piece the telescope will give you 30X Magnification.

$750 / 10 = 75$: So with the 10mm eye piece the telescope will give you 75X Magnification.

If you put the 2X Barlow into the telescope - then put an eye piece into the Barlow, the Barlow "*does exactly what it says on the tin*" 2X.

The 30x eye piece becomes $30 \times 2 = 60X$ Magnification.

The 75x eye piece becomes $75 \times 2 = 150X$ Magnification.

From this you can see that the telescope is not working hard (close to its maximum 300X). You would need an eye piece with a much smaller focal length to get to 300X.

I am still on a learning curve with it so as to get the best out of it. It is still early days and with darker nights I hope to see more.

Dave / Danny

Junior Astronomers Club (JAC & Gill)

News October 2014

It was a very busy start to October for Thanet Astronomy Group, as we had been invited to do Presentations and Night Viewings for two Junior Groups within the local community. The first was a return visit to the 8th Ramsgate East Brownies, who we first met in July 2014 to help them to achieve their Astronomy Badge. However, at that time of the year, the evenings were too light so we agreed to do a follow up during the autumn months.

On our return on Friday 3rd October, the girls had been very busy as they had made their own simple sextants. This enabled them to measure the angle of the Moon, which was clearly visible when they arrived at the beginning of their meeting, at dusk, and at the end when it was completely dark.

The next night, our Junior Chairman, George Harvey, had his first opportunity to help at a presentation to the Local Beavers Groups of the whole of Thanet, on Saturday 4th October. There were nearly 80 children altogether, between 7 and 10 years, who were having a “Space Themed Camp sleep-over” at St George’s School...although I don’t think there was much sleep going on!

After a very enlightening presentation, the Beavers were split into 3 activity groups to do astronomy related tasks. One group stayed in the main hall with George Cozens and Karen Harvey to explore Stellarium on the large screen. They were treated to close ups of the planets and constellations! Another group went with me (Gill) to re-enact the movement of the Solar System using the Beaver Leaders as the Sun and children as the planets and moons! The other group were very fortunate to have clear skies that night, so they went outdoors with Danny, “Big” George Ward and “Little” George Harvey to look through the telescopes. They were able to identify the Summer Triangle, the Milky Way and many prominent features on the Moon.

All three groups took turns to have an opportunity to experience all three activities and some wanted to continue asking questions, even though it was 10.30pm by the time we had finished the tasks!

These groups of children are the Astronomers of the future and their enthusiasm knows no boundaries. Their fascinating questions and observations are what fuels the scientific experiments of the next generation...

Reach for the Stars Junior Astronomers!

Gill Palmer.

Executive Committee Messages

Getting our group known

The Executive Committee would like to say a big Thank You to all of our members and long suffering wives and husbands that helped with the events this month. The 8th Ramsgate East Brownies, the combined Thanet Beavers Space Camp **nearly 80 Children**, the Thanet Community Support Partnership, and the Christchurch Wives.

These events are very important to the group because they raise the level of public awareness that our group exists.

Your Newsletter

Welcome to Issue 002 of your newsletter, we hope you find it interesting and helpful.

If anyone has anything they are looking for, want to sell or even give to a good home, remember there is a for sale and wanted page on the back of the news letter. If it proves to be popular we will add a for sale and wanted page on the web site.

Remember this is your news letter, let us know what sort of articles you would like to see in it.

The Web Site

This month we have added a new **Community Support Page** to the web site to help the people of North East Kent find out how we can support their interest in Stargazing and Astronomy.

This new page will list what Thanet Astronomy Group have been doing to promote Stargazing and Astronomy in the North East Kent Area on a month by month basis.

TAG & FAS Newsletter Pages. Go to the Members page and these two new pages will appear in the links on the left under the Members link. You will be able to view, download and print the Newsletters.

The FAS Newsletter is 21 pages of A4
The TAG Newsletter is 12 pages of A5

(-: Wishing you all Clear Skies :-)

Danny, George, Gill.

Member's For Sale and Wanted

This page is for members to place items for Sale and Wanted adverts.

Please let us know if you have anything you would like on this page.

Email us at : - thanetastronomygroup@gmail.com

Or call Danny 01843 228904 or George 01843 292640