The Messenger

Mexborough & Swinton Astronomical Society

October 2015

Thrybergh Country Park, September 19th





Approximately 30 people turned up at Saturday 19th September at Thryburgh Country Park.

Check out my ace picture of the Moon taken using Mick Collinson's refractor and an iphone 4 as the camera.

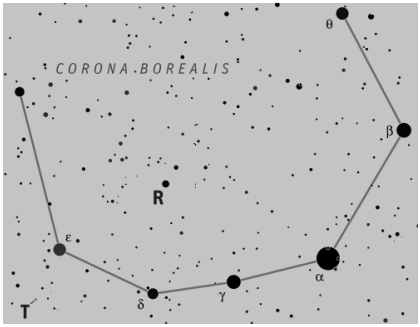
It was a pleasant evening, only the moon was worth looking at, Saturn was lost in the clouds over Sheffield. Les did a lecture on the solar syatem for around 20 people and I put on a display of meteors and star maps along with an introduction to astronomy. Although the numbers were small it ended up being a pleasant event, we had four telescopes available for use. The event finished about half past nine.

Phil Muffett

DON'T FORGET - SPECIAL GENERAL MEETING OF THE SOCIETY

THURSDAY OCTOBER 1st 2015 at Swinton Bottom Club

Corona Borealis



A string of seven stars in the northern sky, sandwiched between Hercules and Bootes. Known as the northern crown, quite aptly as it is also our societies badge or logo, and we are confident of our position as the “crown” of the northern astronomical societies!

Corona Borealis is represented in the mythological tales of many ancient cultures. In classical mythology Corona Borealis represents a tale of love and despair. Ariadne was the daughter of King Minos of Crete and fell in love with Thesus who had come to kill the Minotaur. She helps him escape the Minotaurs maze and then marries him. However he deserts her on the island of Naxos. The God Dionysus (who is the God of wine and grapes) spots the weeping, falls in love and fashions a jewel encrusted crown which is placed in the heavens for all to behold.

The Chukchi eskimos of northern Siberia see the constellation as a representation of the polar bears paw Some tales in Arabia have named the brightest stars of the constellation as the “Beggar’s Dish” – representing the bowl that beggars hold up for alms.

Corona Borealis was known to the Hebrews of the 2nd millenium BC by the name of "Ataroth," who was the crowned prince of hell and the male companion of the canaanite godess Ashtoreth. The ancient Chinese included Corona Borealis in a constellation or asterism called the “Coiled Thong” and I refrain from passing a comment!

This constellation contains the star T Coronae Borealis, which is a recurring nova. It normally has a magnitude of about 10, but suddenly blazed up to a magnitude of 2.0 in 1866 and magnitude 3 in 1946. It was one of the first stars to be studied by spectroscope.

The brightest star in the constellation is Alpha, a star of 2.4 magnitude. It was known to the Arabs as "Alphecca," which means the "bright one of the dish," referring to the resemblance of the constellation to a beggars broken plate mentioned above. This star is also called "Gemma," and "the Pearl of the Crown". Alphecca is a double system, the primary being an A0 star of 2.5 times the mass of the sun, the secondary is in a very close orbit, only taking 17 days to complete an orbit. It is an eclipsing variable as a result but the magnitude change is minimal. A large infra red signal has been detected extending some 60Au out from the central stars indicating a disc of material

The star R Coronae Borealis is the prototype of a rare class of star that are deficient in hydrogen and are thought to be the result of a merger or collision between two white dwarf stars. It varies unpredictable in brightness from a 6th magnitude star and can become fainter than 15th magnitude on occaisions. The star spectroscopally has a composition of almost 90% helium and less than 1% hydrogen and there seems to be carbon clouds which obscrure the photosphere leading to the magnitude changes.

Beta Coronae Borealis or Nusakan is a spectroscopic binary system whose two components are separated by 10 AU and orbit each other every 10.5 years.

Gamma Coronae Borealis, yet another binary star system, whose components orbit each other every 92 years and are roughly as far apart from each other as the Sun and Neptune

Some old astronomy texts list the constellation as bieng the radiant point of the Coronids, a meteor shower visible from April 12th to June 30th. (Star Map centre pages)

The Thoughts of Chairman Les



I hope you are all getting ready for the very important meeting Thursday 1st October to try and help our society move forward. There has been a lot of work being done at the observatory since our last publication. Modifications and decoration have taken place inside the building and it looks very well for the start of our PVE (Public Viewing Evenings) activities throughout the winter months. The first of these took place Friday 18th September with 17 visitors. The sky was not at all, there were 10/15 minutes when the youngsters were able to see the moon through the telescope. The 19th September found us doing our thing at Thrybergh Country Park. We were there about an hour before sunset and a solar 'scope was quickly set-up. There were three of our members with their 'scopes for the public to use with guidance. There were about 30 people pass through and they found it interesting and there were about 28 for the presentation at about 8.30. There has been some very positive action from Yorkshire Water Services just recently. Two of their surveyors met us at the observatory to stake out the area of land that we rent from them. Now we can see the actual size of the site it looks very favourable. We are still giving serious thought to purchasing the site.

It would be nice to see a few more names on the list for our 'Solstice Dinner' next June.

I wish you clear skies

Les Marsden

Les Marsden FRAS

Tuesday Night Imaging Group

The Imaging group meets every Tuesday from 19:30 (ish) until late at the Observatory.
Now that the nights are drawing in and getting darker, the likelihood of being able to gather data is improving.
Even when the clouds roll in, we still attend and discuss processing techniques and learn from each other. All data captured on any evening is available to those that attend for personal processing. We all started somewhere, and it's a good environment to learn in. All levels catered for.

Please feel free to join us, no appointment necessary.

Mike Scollan

Andrew Kirton-Vaughan's October Skynopsis



Galactic Goodies:

Globular Clusters	Messier 2 in Aquarius
	Messier 72 in Aquarius
	Messier 15
Open Clusters	Double Custer in Perseus - NGC 869 / 884
	NGC 7106 in Cepheus
	The Pleiades - Messier 45 in Pegasus
Double Stars	Eta Persei – Miram – Mag 3.8
	Epsilon Persei - difficult split – Mag 2.9/8.5
Variable Stars	Lambda Tauri – Eclipsing – Mag 3.4 (reducing to 4.5) every 3.95 days.
	Beta Persei – Algol - Eclipsing – Period 2.86 days. Eclipse time ~10hrs.
Planetary Nebula:	NGC 7009 – The Saturn Nebula in Aquarius
	NGC 7293 – The Helix Nebula in Aquarius
	NGC 40 in Cepheus
Diffuse Nebula:	Cygnus Star Cloud in Cygnus
	Crescent Nebula – NGC 688 / Caldwell 27 in Cygnus
	Cocoon Nebula – IC 5146 / Caldwell 19 in Lacerta. Mag 7.2
Galaxies:	NGC7331 / Caldwell 20 in Pegasus – Part of the Deer Lick Group. Mag 9.5. A Challenge!

Diary (all times **UTC** unless otherwise specified)

4th	Moon at Last Quarter
8th	Conjunction between Moon and Venus – Visible from 05:00
9th	Conjunction between Moon and Mars - Visible from 05:00
12th	Uranus at opposition. New Moon.
16th	Mercury at greatest elongation west, Conjunction between Moon and Mars – Early evening viewing
17th	Conjunction between Jupiter and Mars – Early evening viewing
20th	Moon at First Quarter
21st	Orionids meteor shower peaks. Max 25 per hour visible.
25th	Conjunction between Venus and Jupiter - Visible from 05:00
26th	Conjunction between Moon and Uranus. Venus at greatest elongation west
27th	Full Moon

The Planets

Mercury	Visible only for half an hour before sunrise in Virgo
Venus	Visible only 3 hours before sunrise in Leo
Mars	Visible only 1 ½ hours before sunrise in Leo.
Jupiter	Visible only 2 hours before sunrise in Leo
Saturn	Not Visible
Uranus	In Pisces. Good viewing all night.
Neptune	In Aquarius. Good viewing before midnight
Pluto	Just visible before 21:00, 0.5° west of ξ2 Sgr. Mag 14.1

SOLSTICE DINNER

FRIDAY JUNE 17TH 2016 ROCKINGHAM ARMS – WENTWORTH 7PM

MENU

STARTER	MAIN	PUDS
Whitebait	Half Roast Chicken	Chocolate Fudge Cake
Stilton Mushrooms (V)	Roast Beef Topside	Ice Cream Sundae
Soup of the Day	Roast Pork	Apple & Blackberry Crumble
	Halloumi & Chips	

Keynote Speaker – We are hoping to bring in Alan Chapman

Wives, Girlfriends, Significant others, and even family members are invited too

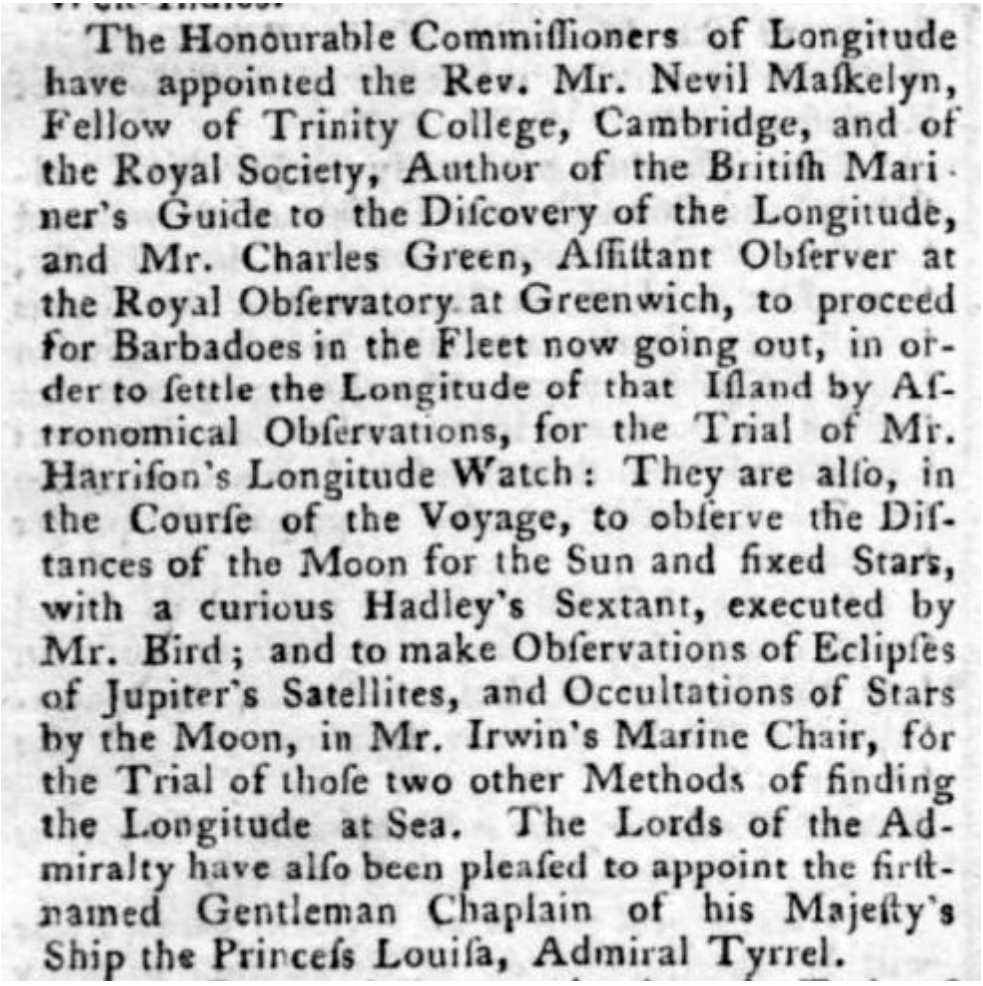
Please indicate either on the form on the wall at the club room or by email to royg@gmx.co.uk – you will then be chased up for £5 deposit per person ASAP. At some stage near the event we will need to know your choice of menu. Estimated Cost £20 (on 50 attendees



Alan's demonstration showing the size of the planets using turnips was a great success

The Old Newspaper Collection

I found this reference to Charles Green of Swinton from the Thursday 15th September edition of the Bath Chronicle.



The Honourable Commiſſioners of Longitude have appointed the Rev. Mr. Nevil Maſkelyn, Fellow of Trinity College, Cambridge, and of the Royal Society, Author of the Britiſh Mariner's Guide to the Diſcovery of the Longitude, and Mr. Charles Green, Aſſiſtant Obſerver at the Royal Obſervatory at Greenwich, to proceed for Barbadoes in the Fleet now going out, in order to ſettle the Longitude of that Iſland by Aſtronomical Obſervations, for the Trial of Mr. Harriſon's Longitude Watch: They are alſo, in the Courſe of the Voyage, to obſerve the Diſtances of the Moon for the Sun and fixed Stars, with a curious Hadley's Sextant, executed by Mr. Bird; and to make Obſervations of Eclipſes of Jupiter's Satellites, and Occultations of Stars by the Moon, in Mr. Irwin's Marine Chair, for the Trial of thoſe two other Methods of finding the Longitude at Sea. The Lords of the Admiralty have alſo been pleaſed to appoint the firſt-named Gentleman Chaplain of his Majeſty's Ship the Princeſs Louiſa, Admiral Tyrrel.

Forthcoming Guest Speakers



Julian Onions - 15th October 2015. After a very brief review of how telescopes work, we look at some of the existing telescopes, both visible and other wavebands, and consider why they are so big, what they can and can't see and what the big telescopes planned for the next few years will deliver.
Julian has always had an interest in astronomy over many years, but decided to take it further by enrolling for a PhD in astrophysics at Nottingham University. There he studies computer models of galaxy formation using some of the biggest computers in the world, and builds model universes using mostly dark matter. He is also a keen amateur taking photographs of various astronomical objects, but is brought back to earth by his department colleagues who get to use some of the biggest telescopes yet built with tracking to die for.

Phil Muffett – Swinton "Astromind"



Congratulations to Phil Muffett who was succesful in winning the clubs internal "Astromind" Quiz. The competition was fierce and notable for all Phil's rivals getting everyone of their last roun=d questions correct. Les was quizmaster as usual, and did a splendid job especially with the special "deja-vue" questions.

Programme for October & November 2015

Date	Time	Location	Subject & Speaker
Thu Oct 1st	19:45	Club Room	**Special General Meeting**
Thu Oct 8th	19:45	Club Room	**TBA**
Wed Oct 14th	19:45	Club Room	**Executive Committee Meeting**
Thu Oct 14th	19:45	Club Room	**Aperture Fever** Julian Onions
Fri Oct 16th	19:45	Observatory	**PVE** Les Marsden
Sat Oct 17th	16:00	Old Moor RSPB	**Stargazing @ RSPB Old Moor** Les Marsden & Phil Muffett
Thu Oct 22nd	19:45	Club Room	**Big, Little and All** *Prof Roger Eccleston*
Thu Oct 29th	19:45	Club Room	**Building the J A Jones Observatory** *Gary Gawthorpe & Tony Morris*
Thu Nov 5th	19:45	Club Room	**Planet Hunting in Poland** *Peter Jalowiczor*
Wed Nov 11th	19:45	Club Room	**Executive Committee Meeting**
Thu Nov 12th	19:45	Club Room	**So … this is Astronomy** *Jo Botterill & Joan Launders*
Thu Nov 19th	19:45	Club Room	**Into Darkness, New Horizons** *Paul Money*
Fri Nov 20th	19:45	Observatory	**PVE** *Les Marsden*
Sat Nov 21st	16:00	Wentworth Castle	**Stargazing @ Wentworth** *Les Marsden & Phil Muffett*
Thu Nov 26th	19:45	Club Room	**Winter Sky** *Andrew Kirton-Vaughan*

Old Moor RSPB – Manvers Way, Barnsley, S73 0YF
Wentworth Castle – Stainborough, Barnsley, S75 3ET
Thryberg Country Park – Doncaster Rd, Rotherham, S65 4NU
PVE – Public Viewing Event
CAE – Community Access Event

Web site: http://msas.org.uk
Meeting room is at Swinton Working Men's Club, Station Street, Swinton, South Yorkshire, S64 8AU.
Observatory is at Lee Brook Lane, Hoober, S62 7SH
Mexborough & Swinton Astronomical Society is Registered Charity N° 1064103 in England & Wales

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