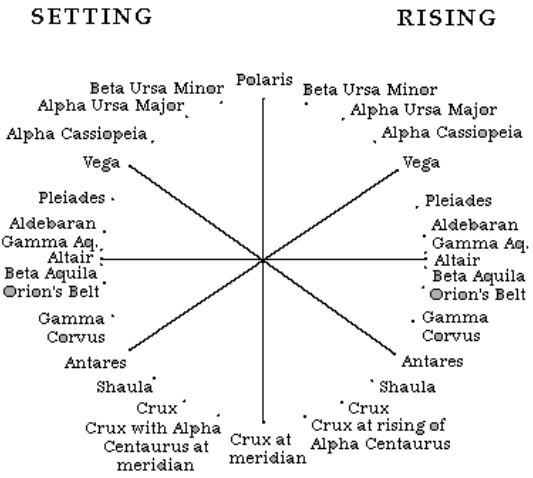
The Messenger
Mexborough & Swinton Astronomical Society
September 2015

The Sidereal Compass Rose

The "sidereal" compass rose demarcates the compass points by the position of stars in the night sky. Arab navigators in the Red Sea and the Indian Ocean, who depended on celestial navigation, were using a 32-point sidereal compass rose before the end of the 10th century.



However the navigators of the Polynesian and Micronesian Islands extensively used the rising and setting of stars as their sidereal compass. Even today children of the Caroline Islands start learning the names of these "compass points" when they are five or six years old. The simple directions are extended by memorization of reciprocal pairs of compass points (e.g. the rising of Vega is across from the setting of Antares) and by perpendicular reciprocal pairs (e.g. the Vega-Antares axis is perpendicular to the Shaula-Alpha Cassiopeia axis) The rising and setting of stars does not change with the seasons (*though the hours in which they are visible does)*, but it does change as one moves north and south. Fortunately, among the Caroline Islands, the range of north-south travel is fairly limited and doesn't substantially effect the star compass. And because they are near the equator, nights tend to be exactly the same length as days, so at least one rising or setting for each axis will always be visible.

Navigators also need to have a good idea of the angular distance between star compass points. Seeing the setting of Gamma Corvus, they can steer a course towards the setting of the Pleiades, even if the Pleiades is not visible. They can also, with some accuracy, identify rising and setting points based on the position of the star in the sky and the general (apparent) motion of the heavens.
In addition to using the star compass to tell direction, sailors confirm directional information by using the alignment of ocean swells. Among the Micronesian islands, ocean swells at different times of year have particular alignments with particular distinct intervals. By considering the intervals and time of year, navigators can coordinate the motion of the ocean swells with the star compass.
The Caroline Islands are situated near New Guinea in the Pacific Ocean and are spread out over a distance of about 1,000 miles from East to West.

The Thoughts of Chairman Les



Hi it's your chairman again. I hope you have had chance to do some observing even though it's summer time, we've tried to compensate with some very good guest and member speakers.
In the previous publication of this wonderful booklet of ours that I would let you know how the meeting with SBC Ltd had gone. Their committee met us in a pleasant frame of mind on the 12th July and a busy took place.
They are reasonably happy with the way their club is progressing even though the cash flow could be better. Gary, Paul and I attended and we had a thorough exploration of the things that concerned both parties.
Gary provided the society with a copy of his notes taken during the meeting, it is a very good rendition of the items we dealt with.
It is quite lengthy for inclusion here so I have prepared a full copy that will help you with how things stand between both MSAS & SBC Ltd and will be presented to you very soon.

The last meeting of the Feasibility Study Group (#8) took place Wednesday 19th August with Paul D'Silva in the chair as usual. There is to be a Special General Meeting of the whole society Thursday 1st October'15 to which you are all invited, you will probably had some communication from our hard working secretary in recent days either by email or snail mail so try and make if can it is very important to the future of your society. There is also a full 'Feasibility Study Report' for you to sudy and inwardly digest ready for the SGM.
One of our problems is getting any information from Yorkshire Water Services and this is causing a few problems with us.

I wish you clear skies

Les Marsden

Les Marsden FRAS

List of Public Observing Dates - Winter 2015

SEP Fri 18	Access	PVE @ Observatory
SEP Sat 19	Outreach	Thryberg Country Park
OCT Fri 16	Access	PVE @ Observatory
OCT Sat 17	Outreach	Old Moor RSPB
NOV Fri 20	Access	PVE @ Observatory
NOV Sat 21	Outreach	Wentworth Castle

Andrew Kirton-Vaughan's September Skynopsis

Diary (all times BST unless otherwise specified)

1st	Neptune at Opposition; Conjunction between the moon and Uranus
4th	Mercury at greatest elongation east
5th	Last Quarter Moon
9th	Piscid meteor shower peaks – Max 10 per hours
11th	New Moon
19th	Conjunction between the moon and Saturn
21st	Moon at First Quarter
23rd	September equinox
28th	Full Moon; Total lunar eclipse at ~ 03:52
29th	Conjunction between the moon and Uranus



The Planets

Mercury	Not Visible
Venus	Not Visible
Mars	Early morning – Rises ~0400 in the east. Very close to the Sun.
Jupiter	Not Visible
Saturn	Very low in the SW just before sunset. Difficult viewing.
Uranus	In Pisces. Good viewing all night. Conjunction with the Moon on 1st & 29th.
Neptune	In Aquarius. Good viewing all night.
Pluto	Visible before 23:00, 0.5° west of ξ2 Sgr. Mag 14.1

Galactic Goodies:

Globular Clusters	NGC 7006 / Caldwell 42 in Delphinus. Mag 10.6 NGC 6934 / Caldwell 47 in Delphinus . Mag 8.9 Messier 71 / NGC 6838 in Sagitta. Mag 8.3
Open Clusters	Cooling Tower - Messier 29 / NGC 6913 in Cygnus. Mag 6.6 Messier 39 / NGC 7092 in Cygnus. Mag 4.6
Double Stars	Gamma Delphini. Mag 5.1 Beta Cygni – Mag 3.35 – Great colour contrast
Planetary Nebula:	NGC 6781 in Aquila – Mag 12 NGC 6905 in Delphinus – Mag 12 The Dumbbell Nebula - Messier 27 / NGC 6853. Mag 8.1
Diffuse Nebula:	E Nebula – Dark Nebula in Aquila. Opacity 6.0 North American Nebula – NGC 7000 / Caldwell 20 in Cygnus The Veil Nebula - NGC 6969/6992-5 in Cygnus
Galaxies:	Messier 74 / NGC 628 – Face on Spiral in Pisces. Mag 9.2

Special General Meeting 2015

NOTICE IS HEREBY GIVEN that a Special General Meeting of Mexborough & Swinton Astronomical Society will be held at the Society's meeting room at Swinton Bottom Club (formerly Swinton Working Men's Club), Swinton, Mexborough, at 19:45 on Thursday, 1st October 2015 to transact the following business.

1. Minutes of the previous meeting
   Minutes of the previous Annual General Meeting to be agreed and matters arising.
2. Correspondence
   To consider correspondence received or sent
3. Observatory Extension Feasibility Study Report
   To receive the Final Report of the Observatory Extension Feasibility Study Group.
4. Question & Answer Session
   There will be an opportunity to raise questions arising from the Report.
5. Proposed resolutions
   To consider a resolution proposed by Paul D'Silva and seconded by ? that "The society adopt the final report of the FSG and authorise the society to proceed to obtain necessary permissions and investigate possible sources funding."

In accordance with the Rules of Membership members wishing to submit proposals or amendments for consideration at the Annual General Meeting must do so in writing to the Secretary at least 21 days prior to the meeting; the deadline for receipt of submission is September 10th 2015 at 22:00. The proposal or amendment must be seconded.

By order of the Executive Committee

Shaun O'Dell

Secretary

Neptune at opposition

Tue, 01 Sep 2015

Neptune will be well placed for observation, in the constellation Aquarius. It will be visible for much of the night, reaching its highest point in the sky at around midnight local time.

From Rotherham, it will be visible between half past eleven and half past two in the morning. It will rises to some 24° above the southern horizon, and then reach its highest point in the sky at about 1 in the morning.

Neptune in coming weeks

Over the weeks following its opposition, Neptune will reach its highest point in the sky four minutes earlier each night, gradually receding from the pre-dawn morning sky while remaining visible in the evening sky for a few months.

Caught the end of a documentary on the radio about Galileo
– Apparently he was a poor boy from a poor family, he got no sympathy but he opened his eyes and looked in the skies to see.

Scary Paul D'Silva!





Paul is putting together an entry for the "Swinton Scarecrow Festival" based on Charles Green. He is hoping to get a display based around the famous astronomer "Son of Swinton", who sailed with James Cook to observe the transit of Venus in 1769.

Please support Paul in this endeavour, and go along.

The rumours that Paul will be sitting Les in a wheelbarrow dressed as Wurzul Gummidge are unfounded at this stage, but he might get a "nice cup o' tea an' a slice a cake"

Professorial Lecture - Professor Alison Adam

Did Sherlock Holmes invent forensic science?

Wednesday 30 September 2015
6 for 6.30pm
9130, Cantor Building, City Campus, Sheffield Hallam University

Did Sherlock Holmes invent forensic science? Well, some people think he did! In this lecture I shall be considering how we could seriously entertain the idea that a fictional character invented one of the most important new scientific disciplines of the twentieth century. I shall describe some of the key developments in forensic science in the UK in the first part of the century, including the interesting way that forensic fact and forensic fiction were intertwined, based on my new book, A History of Forensic Science: British Beginnings in the Twentieth Century. In 1900, the term 'forensic science' was never used in the UK. By the outbreak of the Second World War, not only had 'forensic science' come into existence but the seeds of a network of forensic science laboratories had been sown by the Home Office. The invention of forensic science was as much due to civil servants as it was to real scientists and fictional scientific detectives.

Professor Alison Adam is Professor of Science, Technology and Society at Sheffield Hallam University. She has also worked for ICI, Lancaster University, UMIST and the University of Salford. Her research interests include gender and technology, computer ethics, critical information systems and the history of forensic science. Her book, A History of Forensic Science: British Beginnings in the Twentieth Century will be published by Routledge in November, 2015.

Places are free and include light refreshments, but must be booked in advance.

Website http://events.shu.ac.uk

William Noble and the Formation of the BAA



The British Astronomical Association was formed in 1890 as a national association for Amateur Astronomers throughout the UK. The first President of the BAA was William Noble who is now a relative unknown amongst the history of astronomers. So here is a little about him.

William Noble was born in London in 1828 to wealthy parents from the North of England (Berwick-on-Tweed). He was educated at home with private tutors and signed up to the Rifle Brigade when he became "of age" (presumably 18 or 21). He achieved the rank of Captain, and retained the use of this rank into his civilian life.
He married in 1851 to Emily Charlotte Irving, at the age of 23. Not finding any details I presume his military career was short.
He was evidently well off – presumably land and money from his parents and showed a keen interest in astronomy. He was elected as a fellow of the Royal Astronomical Society in June 1855 and contributed to talks and "letters" to the societies journals – his first being an account of an occultation of Mars in 1857.
He was known for observations of occultations of stars and planets and produced many fine drawing of the planet Jupiter.
He was also a regular outspoken critic of certain projects, especially those using public money – opposing the construction of a public observatory in South Kensington in 1880 – even becoming the Secretary of " The Society for Opposing the Endowment of Research" He wrote many critical letters of scientists and astronomers who he believed where "wasting their time" - particularly against the time and effort being put into searching for "Vulcan" the intremercurial planet that at that time was believed to exist. How he became the first president of the BAA one can only speculate – however he certainly was a colourful character.



He lived in Uckfield in Sussex for many years up to his death at Forest Lodge. He was a Justice of the Peace for Sussex, Chairman of the Uckfield Bench, of the Uckfield Board of Guardians, and of the Rural District Council. He set up an observatory at Forest Lodge and was a constant and regular observer, and frequently contributed short notes to the Monthly Notices on occultations, drawings of sun spots, etc. For nearly forty years he contributed each fortnight to the English Mechanic an article, over the signature, " A Fellow of the Royal Astronomical Society", in which he criticised with some freedom current astronomical events

His obituary makes interesting reading:-

Honoured and respected by all who knew him, Captain William Noble, J.P., Chairman of the Uckfield Bench of Magistrates, passed away his residence, Forest Lodge, Maresfield, at an early hour on Saturday morning last. For some months past the deceased gentleman had suffered from a painful illness, and his demise was not altogether unexpected. ! His last public appearance was on April 7th last, when he attended sitting the Uckfield Police Court, but a few weeks afterwards he was seen in the town. His condition rapidly grew worse, and practically all hopes of his recovery departed, and died as stated above. Seventy-six years of

age, the captain was well known throughout East Sussex. For less than thirty-four years was Chairman of the Uckfield Board Guardians. He had been, too, Chairman of the Rural District Council since its formation, and previous to that presided over the old Rural Sanitary Authority. April 18ih last he was re-elected Chairman of the Board Guardians, but he was unable to attend through illness any of the meetings during his thirty-fifth years of office. The late captain was a co-opted member, and although it was urged times that the Chairman should be popularly elected representative, possessed the confidence the whole of the members. He had sat on the Bench as a Magistrate since 1858 and for a long time had been the Chairman. That he carried out his duties fearlessly and well was recognised by all, although his views were not always in accord with those of his brother magistrates. The deceased gentleman was also a member of the Council of the Sussex Archaeological Society, Chairman of the Commissioners Land and Income Tax, Chairman of the Standing Joint Committee of the County Council and Quarter Sessions, and member of the Councils of the Royal Astronomical Society and the British Astronomical Association, astronomy being a subject in which he was greatly interested. At one time, was also Chairman of the Maresfield Parish Council. Outspoken his remarks, the Captain frequently gave vent to his opinions. To him, speedy motorists were "cads," tramps were "the human vermin, the rats and mice of creation who consume everything and give nothing in return," and forth. He was, too, an outspoken critic of the County Council, and on several occasions he expressed in unmeasured terms his views with regard to the "reckless expenditure" that body; while a Guardian he always had the ratepayers in his mind, and any proposition which he considered to be extravagant or ill-advised he was not slow to condemn. To lawbreakers "going before the captain" was a dreaded ordeal, but despite this, he was the first to whom many persons whom he had sent to prison went for assistance on their release from gaol. His death occasioned genuine feeling regret throughout the district. Mrs. Noble predeceased the captain about three years ago.

A NEW BRITISH ASTRONOMICAL SOCIETY.

TO THE EDITOR.

Sir,—In no department of science has popular interest grown so rapidly as in that of astronomy; for where, thirty or forty years ago, there was one telescope in use, there are now probably a hundred. Nor has our own country been behind hand in this advance as shown by, *inter alia*, the success of the lectures delivered in Lewes by my old friend Mr. G. F. Chambers, F.R.A.S., in connection with the University extension scheme, and by the establishment of the now pretty numerous observatories dotted over Sussex. To further so desirable a spread of knowledge, it is proposed to establish an astronomical society essentially for the amateur; with a subscription sufficiently small to bring it within the reach of the most humble observer. If you regard this as a matter of sufficient public importance, perhaps you will kindly spare enough space for the reproduction of the prospectus of the suggested association which accompanies this.

I am, sir, &c.,

WILLIAM NOBLE.

Forest Lodge, Maresfield, Uckfield,

August [illegible], 1890

Programme for September & October 2015

Date	Time	Location	Subject & Speaker
Thu Sep 3rd	19:45	Club Room	**Mercury** *Roy Gunson*
Wed Sep 9th	19:45	Club Room	**Executive Committee Meeting**
Thu Sep 10th	19:45	Club Room	**Aperture Fever** *Dr Mike Evans*
Thu Sep 17th	19:45	Club Room	**TBA** *Dr Matthew Malek*
Fri Sep 18th	19:45	Observatory	**PVE** *Les Marsden*
Sat Sep 19th	18:30	Thrybergh Country Park	**A Night under the Stars – CAE** *Les Marsden*
Thu Sep 24th	19:45	Club Room	**MSAS Astromind Competition**
Thu Oct 1st	19:45	Club Room	**Special General Meeting**
Thu Oct 8th	19:45	Club Room	**Planet Hunting in Poland** *Peter Jalowiczor*
Wed Oct 14th	19:45	Club Room	**Executive Committee Meeting**
Thu Oct 15th	19:45	Club Room	**TBA** *Julian Onions*
Fri Oct 16th	19:45	Observatory	**PVE** *Les Marsden*
Sat Oct 17th		Old Moor RSPB	**Stargazing at Old Moor** *Les Marsden & Phil Muffett*
Thu Oct 22nd	19:45	Club Room	**TBA** *Prof Roger Eccleston*
Thu Oct 29th	19:45	Club Room	**Building the J A Jones Observatory** *Gary Gawthorpe & Tony Morris*

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^{o} 1064103 in England & Wales

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