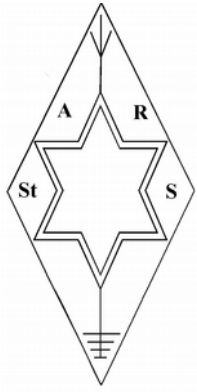


STARLITE

THE NEWSLETTER FOR THE STOURBRIDGE AND DISTRICT A.R.S.



**G6OI
G6SR5**



ISSUE NUMBER: JANUARY 2018



G4CVK

**STOURBRIDGE & DISTRICT AMATEUR RADIO SOCIETY
INCORPORATING
OLD SWINFORD HOSPITAL SCHOOL RADIO CLUB**

MEETINGS HELD AT

**OLDSWINFORD HOSPITAL SCHOOL
HEATH LANE
STOURBRIDGE
[8:00 TO 10:00 PM]**

VISITORS ALWAYS WELCOME

**THE SOCIETY HOLDS ITS FULL MEETINGS
ON THE 1ST AND 3RD MONDAYS EACH MONTH**

80TH ANNIVERSARY YEAR

[MARCH 2018 - MARCH 2019]

RSGB AFFILIATED SOCIETY

The views expressed in STARLITE may not be those of the Committee – Stourbridge and District Amateur Radio Society

STARLITE

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[01562] 700513

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www.g6oi.org.uk
<http://g6oi.ross-lewis.co.uk/index.html>

StARS Facebook Page:-

<https://www.facebook.com/groups/stourbridge.ars/>

All correspondence/enquiries should
be addressed to the Hon Secretary at:-

StARS
c/o The Mill House
21 Mill Lane
Blakedown
Kidderminster
DY10 3ND

Forthcoming Meetings

January 1 st	No Meeting On New Year's Day!
January 8 th	On Air. Informal. Digi Modes Group.
January 15 th	Main Meeting. <i>JT65 & FT8 Digital Modes by Wayne M5LLT</i>
January 22 nd	On Air. Informal. Digi Modes Group.
January 29 th	On Air. Informal. Digi Modes Group.
February 5 th	On Air. Informal. Digi Modes Group.
February 12 th	On Air. Informal. Digi Modes Group.
February 19 th	Main Meeting – <i>Constructors' Competition</i>
February 26 th	On Air. Informal. Digi Modes Group.
March 5 th	On Air. Informal. Digi Modes Group.
March 12 th	On Air. Informal. Digi Modes Group.
March 19 th	Main Meeting – <i>ANNUAL GENERAL MEETING 2018</i> <i>StARS 80th Anniversary Year Begins</i>
March 26 th	On Air. Informal. Digi Modes Group.
April 2 nd	On Air. Informal. Digi Modes Group.

To Begin



Here we are with the arrival of another new year and hopes for a successful 2018. To me, the old year seemed fairly uneventful, although we did have a couple of interesting talks/presentations and some already in the calendar during the next few months. We have so much scope for promoting the Society, the obvious primary activity would be having the radio(s) on air during the “informal” meetings and that is my suggestion for going forward. If you have any ideas/suggestions for promotion or activity, I would urge you to have a word with one of your Committee members – they are all listed on the last page of every issue.

Bob G4XOM. Starlite Editor.

Editor's Snippets

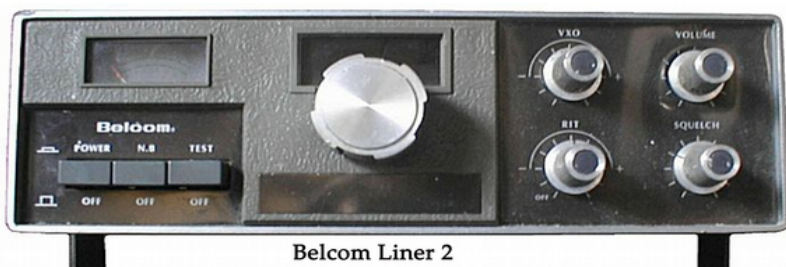


I hope you all had a good Christmas and New Year.

You are very lucky to get this issue, because, as you can see, it appears that someone had an exceptionally good time over the Christmas period – or so I'm told!

I think it would be advisable to restrict the libation in future.

Recently, I've been remembering some of the radio equipment, which I have used/owned over the years since my licensing [as G6DIH] in 1981. Besides a couple of hand-helds, my first “serious” was the infamous Belcom Liner 2. I had some good years using this radio and made many, many contacts during my initial enthusiastic couple of years. The only drawback with the Liner 2 was that it was causing TVI to one of my neighbours, who would not let me investigate a cure to the problem to their Samsung TV. Some time later, I was informed that this brand of TV was prone to interference. This situation deflated my enthusiasm, somewhat, and prompted me to operate as a /P station, which I enjoyed very much, although it wasn't really productive during the winter months.



After I passed the Morse test and got G4XOM [1984], I obtained a Trio TR-9000 and experienced no more TVI issues. This enabled me, together with Andy G0AGH, to begin a weekly StARS net on 144MHz SSB. This was way back in the olden times of the 1980s and several members, plus some non-members, took part in this lively net.



G0AGH and I, also, spent most days on HF, using SSB, CW and RTTY, with some talk-back on 2m. My HF rig at the time was a Trio TS-120V, which I still have and may be for sale in the future. It's a super radio with 80-40-20-15-10m bands, intended for base station or mobile use and has a modest 10 watts output on SSB and CW, but has a very good receiver, which you would expect from Trio/Kenwood equipment.



Around 1990 I fancied a change of HF rig, but was determined to stay with the Trio brand. I was fortunate enough to purchase a TS-130V, together with its matching external VFO and linear amplifier. The prime mover is, once again, 10 watts output on 80-40-30-20-17-15-12-10m bands, but using the linear amp we have 120 watts out. This is very useful when you only have use of a meagre dipole aerial. My ASTU is a Yaesu FC-700, which visually suits the setup much better than the Trio equivalent. This was the equipment used when my brother [G0BHR] and I entered SSB Field Day at Eastnor Park, as reported in a previous issue. I still own this gear and use it from time to time.



To conclude this section I include some more photos of other rigs I have. Firstly, we have the popular Yaesu FT-290R Mk1 2m multi-mode. More than 30 years old and still in good working order. Secondly, there is the 70cms version, the FT-790R, together with a Microwave Modules 30 watt linear amplifier, which would be about the same age. Finally is my kitchen setup. Yaesu FT-817ND above the Yaesu FT-7800. Not an ideal situation, but suits me for now.

Bob G4XOM.



A joke recently heard on the air:

Q. What's the difference between America and yoghurt?

A. Leave yoghurt alone for 200 years and it will develop a culture!

Feature Tech AW07A Antenna Analyser



I've always wanted an antenna analyser but the high cost has always prohibited the purchase of a piece of test equipment. The MFJ analyser was the popular unit to be had and then you had to look for the model that covered 430MHz for it to be multi-purpose. Most only go to 145MHz, so extra cost again.

So I looked at various options of building my own. Designs are out there using the very cheap Arduino and LCD displays but setting up, getting all the parts, writing the Linux code, building the case, interfacing the RF with the Arduino etc. etc.....the cost starts mounting up, then is it going to work ? Let alone all the time taken. I then took the advice of G4JCP Phil, while chatting on GB3KC about this project. From the mouth of the Arduino king*"if you can find one for 150 quid buy one"* this took me back a little but made me think, so I started Googling, got a cloth and mopped it up and checked out the Internet for Analysers. There were quite a few MFJ

included, kits to build and various Chinese offerings. Some only covered HF, some only VHF/UHF, then I found the Feature Tech AW07A.

This little beauty not only gives all manner of analysis for antennas, but it doesn't stop there. You can measure impedance, not only at 50 ohms but a wide range, it is a wide range RF signal generator, a digital frequency meter, measures capacitance and inductors.

Wow! All this for £150.....OK, it's not a Marconi lab grade piece of tech and if you read the reviews people have had bad ones, dials broken (send it back then) it drifts a little, so? If you are checking your 2m mobile whip to make sure it's in band, you're not going to use a spot frequency, are you? You're using a range of them, so a bit of drift no problem and it's only minute anyway from what I can see.

The unit takes 8 AA batteries (not included) and comes with a DC lead. I plan to replace these with Enerloop AA rechargeable. I will need to alter the DC socket as it is switched to stop you recharging standard batteries. The display LCD is very clear and illumination is switchable, but the front screen is only a very soft PVC film. This will be changed very soon for a more robust acrylic lens. They provide two good quality adapters from N to SO239 and BNC the unit itself terminates in N Type.

This unit fits my bill and some, so looking forward to some antenna projects and checking current ones out. So far, my Diamond 2/70 Co-linear seems to be pretty rubbish. 2m is

resonant best at 146.9MHz and 70cms is 384MHz; perhaps I shouldn't have bought this analyser!

You can measure 50MHz (6m), but it falls just shy of 70MHz stopping at 69MHz, but there may be a way to get to 70, which I haven't found yet.

All-in-all I'm very pleased with this analyser from China. It doesn't come with a manual, but I'm downloading one off the net and the cardboard box will be replaced with a soft case soon.

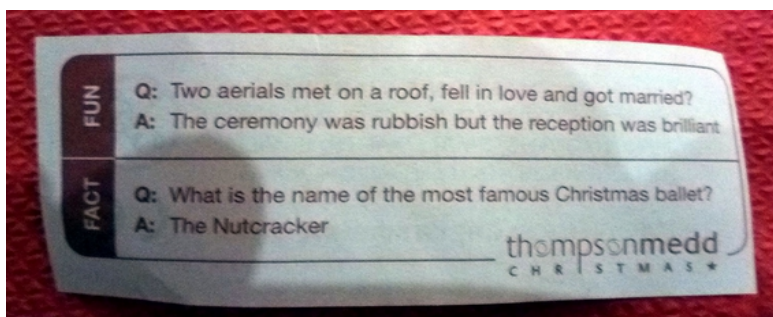
Will let you know how it goes after having a longer time to play with my new toy.

Wayne M5LLT

StARS Christmas Meal 2017

Held at the Greyhound, Norton Road, I understand that the gathering went well, even though there were reduced numbers due to the bad weather conditions. But it appears the food was very good.

Wayne M5LLT took a few photos, which I include here. Wayne commented on the first photo "*They knew we were coming obviously. Here's the first cracker joke at the Stars Xmas Dinner*".



Pic left: Ross M6RLZ and Jim G4WAO

Pic bottom left: John G6GTB and Geoff G0KVK

Pic below: Jim G4WAO, James G7HEZ and Mark M0TCG



This space left intentionally blank for your contribution.

Memories, photos, projects, general chit-chat, etc., would all be very welcome.

The Editor is working furiously to get the next issue ready for distribution.

Send input to: robq4xom@outlook.com



UK AMATEUR RADIO CALLSIGN THE HISTORY

UK Amateur Radio Call Signs (callsigns) - summary or overview of UK or British amateur radio callsigns or call signs and the types of licence used in the UK by ham radio operators. There is a large number of different prefixes used for UK, British amateur radio callsigns or call signs. From a knowledge of these ham radio call signs it is possible to learn something about the licensee - the type of amateur radio or ham radio licence held and also when it was issued.

As the types of ham radio licence available have changed over the years, and different call sign series were issued for each one, it may be difficult to identify what the callsigns mean without a table and explanation.

Current UK amateur radio licences Within the UK, there are three types of amateur radio licence that can be obtained, namely the Foundation Licence, Intermediate Licence and the Full Licence. Each of these ham radio licences offers different privileges in a form of incentive amateur radio licence scheme through which all new UK radio hams must progress to achieve the full licence.

The different ham radio licences reflect the experience of the operators, the Foundation Licence offering entry level privileges while the Full licence offers the highest power levels and the greatest number of bands.

Amateur Radio Licence Class - Summary of privileges Foundation licence Maximum of 10 watts on most allocated bands. Band allocations limited. Intermediate licence Maximum of 50 watts. Full licence Maximum UK licence power can be used and all UK amateur radio band allocations available. These overviews are by their nature limited in definition. For full details it is necessary to refer to the appropriate ham radio licence.

UK amateur radio call signs Over the years a variety of different ham radio call sign series have been used in the UK. By looking at the prefix and the number of letters after the prefix it is possible to tell the approximate years in which the licence was issued, and also the original form of licence. There have been a variety of different licences that have been available, and a particular call sign format was used for each different type of licence.

Foundation Licence

Call sign description - Issue dates and details M3 + 3 letters

M6 + 3 letters Available from 13 May 2008

Intermediate Licence

Call sign description - Issue dates and details 2E0 + 3 letters Issued from 1991 onwards as Intermediate licence. Issued as Novice class A licence from 1991 for use on all Novice allocations.

2E1 + 3 letters Issued from 1991 onwards as Intermediate licence. Issued as Novice class B licence from 1991 for use on Novice allocations above 30 MHz. Full Licence.

Call sign description - Issue dates and details

G2 + 2 letters 1920 – 1939

G3 + 2 letters 1937 – 1938

G4 + 2 letters 1938 – 1939

G5 + 2 letters 1921 – 1939

G6 + 2 letters 1921 – 1939

G8 + 2 letters 1936 – 1937

G1 + 3 letters 1983 - 1988 - originally issued as Class B licence

G2 + 3 letters 1920s to 1939. Originally issued as "Artificial Aerial" licence

G3 + 3 letters Issued between 1946 and 1971. Originally issued to amateur radio licence and Class A amateur radio licence holders.

G4 + 3 letters Issued between 1971 and 1985. Originally issued to amateur radio class A licence holders.

G5 + 3 letters Originally issued to foreign nationals as a form of reciprocal ham radio licence. They were withdrawn and either they used existing home calls with additional UK prefix / callsign, or if applicable they could apply for UK licence.

G6 + 3 letters 1981 - 1983. Originally issued as a class B licence

G7 + 3 letters 1989 - 1996. Originally issued as a class B licence G8 + 3 letters 1964 - 1981. Originally issued as a class B licence

G0 + 3 letters 1986 - 1996. Originally issued as a class A licence M1 + 3 letters 1996 - . Originally issued as a class B licence.

M1 + 3 letters 1996 - . Originally issued as a class B licence.

M5 + 3 letters 2001 - Originally class A/B licence 5w Morse and limited to 100w.

M0 + 3 letters 1996 - . Originally issued as a class A licence UK amateur radio call sign prefixes In addition to the basic ham radio call signs a variety of prefixes are used. These not only indicate the country in which the station is located, but also the type of station - a separate set of prefixes being used to indicate whether the amateur radio licence is privately held by an individual or whether it is a club station.

The schemes are different for the M or G series callsigns and those in the 2X* series as the structure of the call signs is slightly different.

Call sign prefix Country

2E England

2D Isle of Man

2I Northern Ireland

2J Jersey

2M Scotland

2U Guernsey

2W Wales

Countries for 2X* series call signs

The call signs in the G and M series follow the same format. The second letter of the prefix indicates the country and purpose of the licence.

Prefix Country / purpose

G & M, no second letter England

GB Special event stations

GC & MC Wales - club licence (optional alternative prefix)

GD & MD Isle of Man

GH & MH Jersey - club licence (optional alternative prefix)

GI & MI Northern Ireland
GJ & MJ Jersey
GM & MM Scotland
GN & MN Northern Ireland - club licence (optional alternative prefix)
GP & MP Guernsey - club licence (optional alternative prefix)
GS & MS Scotland - club licence (optional alternative prefix)
GT & MT Isle of Man - club licence
GU & MU Guernsey
GX & MX England - club licence (optional alternative prefix)
GW & MW Wales

Countries and purposes for G and M series call signs

Although amateur radio club stations are allocated call signs using the standard series of prefixes, they also have the option to use the other prefixes detailed in the table above to indicate that they are a club station. This can be particularly useful when they are operating in particular as a club station when they want to make their status more obvious, or for example in some ham radio contests where a new prefix has added value.

GB call signs The GB prefix is used for a variety of special ham radio licences ranging from repeaters and beacons to data mailboxes and special event stations. It is possible to tell the use of the station and licence from the format of the callsign.

GB call sign format Purpose

GB3 + 2 letters Repeaters

GB3 + 3 letters Beacons

GB7 + 2 letters Data repeaters

GB7 + 3 letters Data mailboxes

GB + other digits not mentioned above Special event stations

For events such as contests, it is also possible to obtain call signs consisting of the prefix plus one letter. For example MW0A could be used for a ham radio contest, etc.

Call sign examples

Listening on the amateur radio bands, a large variety of UK call signs with different prefixes can be heard. By using the above tables and information it is possible to determine much about the station using them. Although no UK call signs with serial letters in the series QAA to QZZ were issued, these can be used as examples as they do not belong to real stations. For example it can be seen that a station with the call sign G3QQQ would have been issued with a class A license and now hold a UK full licence, but it would have been issued between 1946 and 1971, well before the current licensing system was introduced. An amateur radio station with the call sign GB3QQ would be a repeater, and so forth.

As can be seen, there is a great variety in UK ham radio call signs and their prefixes. This diversity has partly arisen out of the changes in the UK ham radio or amateur radio licences and also from the need for new series of UK amateur radio call signs. As a result it is very useful to have an understanding of the make up of these call signs.

DX NEWS

V63AKB48 V63AKB Pohnpei Island

Sumio Kitsugi, JI1MDM will be active from Pohnpei Island, IOTA OC - 010, 15 - 18 January 2018 as V63AKB48 and V63AKB.

He will operate on 20, 17, 15, 12m SSB, FT8.

He will use V63AKB48 SSB and V63AKB FT8.

QTH - South Park Hotel, Pohn Rakied Street, Kolonia, Pohnpei, Micronesia.

QTH Locator – QJ96cx

WAZ Zone - CQ 27.

DXCC Country - Micronesia V6.

Airport, Pohnpei Island. The view from Sokehs Ridge - This international airport runway is short and runs from shoreline to shoreline of this tiny island. Believe me, the 737's use up all of it as the pilots 'stand' on the brakes upon landing. They even break out a gas powered fan to place behind the wheels after landing to cool the brakes down.



IOTA Expedition to Taumako Island, Duff Islands, Temotu IOTA OC-179



Cezar, VE3LYC, inform dxnews.com that he will operate in early May 2018 from Taumako Island, the largest in the Duff Islands group, IOTA OC-179, of Temotu, for a period of at least 5 days, while the entire trip is expected to take 12 days.

This IOTA group has been activated only once, 25 years ago, by Bernhard (DL2GCA, H44MS). After a long flight, he will travel to the islands in a small open boat, and the boatman will stay with him for the entire duration of this operation. Due to steep rising cliffs close to 300 m high, Duff Islands do not seem provide a location with good openings to all areas of the world, particularly to EU and NA. If necessary, Cezar will attempt to operate from two locations, one on the western, the other of the eastern side of Taumako Island, in order to give all chasers an

opportunity at logging this IOTA reference. There are no touristic facilities on Duff, electricity, running water, or toilets. An expedition website will be organized in due course, which will provide the chasers with all the necessary details. Cezar wishes to express his deep gratitude to Bernhard for his ample assistance with the logistics required by this project.

DXCC Country - Temotu Province H40.

The End of Ham Radio? by VA3BD



There's an old saying "if you can't hear them, you can't work 'em." Over the years, hams have built ever better receivers, designed specialized antennas and adapted technology so that even the faintest signal can be heard. By using those techniques, worldwide contacts on the HF bands have become commonplace.

But what if background noise levels become so high that they drown out all signals, even local signals? We are already moving in that direction and I predict that within five years, RFI could become so bad that our HF bands are unusable. Let me explain my position: My wife and I recently moved from a suburban location into the city. At forty feet wide, the lots in our neighbourhood aren't gigantic, but they aren't tiny either. Our home is over ninety years old, so we completely renovated it, including re-wiring from top to bottom. After several months in our new home, I decided it was time to get back into ham radio.

I dragged out an old RX and hooked up a short interior antenna. Nothing. Not a peep on all bands. "Stupid boat-anchor." Oh well, I obviously needed to get the tower put up and see how things worked on the beam. A few weeks later the tower was up, the feed-line was in and I expectantly hooked up the receiver. Nothing. "OK, time to hook up the new solid state transceiver." Still nothing but buzzing – 'Hmm, the noise is 2 units over S -9." Oh, oh, must be the power lines out front. "

So, I fired up a portable receiver and started down the street. By the time I wandered into the middle of a nearby intersection the buzzing was reduced, and I could clearly hear signals. Next I checked out the power-lines - surprisingly, all clear. Back to my house and the noise was so high, all signals were crushed.

Long story short, our new pot-lights are LED types. All radiate RF. The security lights, also LED, radiate RF. The built in night-lights radiate RF. The source of most of the interference was those LED lamps, all of which need low voltage to operate. To convert from household power to low voltage, each lamp has a built in switching power supply. Each power supply is noisy as hell. Pot lights are extremely popular. I counted a total of 26 in my home, and each one was a little transmitter spewing out RF. The cumulative result was an incredibly high noise-floor. That's just in my house.

I turned all the lights out. Still noise, this time from the digital stove and the digital washing machine. Turned off the main breakers, less buzzing, but still no signals. "Guess my neighbours have new pot-lights as well." In fact, using the portable receiver, I determined that there are only a few homes on the street that aren't radiating RF. The scary part is that the switch to LED's and digital appliances has just begun. In the rush to get cheap, energy efficient products into the hands of consumers, our regulators have been caught flat-footed, if they even care...

At one time the HF bands were a valuable commodity. But technology has moved on and today there are relatively few users of HF frequencies. Those users that do exist, including radio amateurs, just don't have the same sort of clout with the government as say a cellular company. (You can bet that if these devices wiped out cellular service, they'd be off the market in a jiffy). There doesn't appear to be any scrutiny of this flood of new products. From light bulbs to coffee pots to digital cable, household appliances have become digital noise-makers.

So where does that leave us as hams? If our own regulators don't care, surely we can't expect that manufacturers located on the other side of the world are going to be concerned. Why should they worry about the impact on little used radio frequencies? I hate to be a pessimist, but if this trend continues, we may soon reach the point where in many parts of the world, operation on the HF bands will become untenable.

I'm going to replace my LED lamps with incandescent, but that won't resolve the interference from the neighbours. And I sure can't go up and down the street demanding that they turn their lights out. I'm going to try to reduce interference at my side through use of a shielded loop antenna at the end of the yard. That may help out a bit, but I could be fighting a losing battle. I just don't know if I will be able to enjoy the HF part of the hobby in a few years.

Is this the end of Ham radio as we know it?

Coming Next Month: The Slim Jim Antenna

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