STARLITE

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

G6OI

G6SRS

G4CVK

ISSUE NUMBER: NOVEMBER 2017

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

RSGB AFFILIATED SOCIETY

STARLITE

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John Clarke M1EJG
[01562] 700513

Or by Email to:-
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StARS Website URLs:-
www.g6oi.org.uk
http://g6oi.ross-lewis.co.uk/index.html

StARS Facebook Page:-
https://www.facebook.com/groups/stourbridge.ars/

Forthcoming Meetings

November 6th	On Air. Informal. DMR Group [Programming, etc.]
November 13th	On Air. Informal. DMR Group.
November 20th	Main Meeting – ***Annual Surplus Sale***
November 27th	On Air. Informal. DMR Group.
December 4th	On Air. Informal. DMR Group.
December 11th	On Air. Informal. DMR Group.
December 18th	Main Meeting. Talk [Subject tba]. ***Final Meeting Of 2017***
December 25th	No Meeting On Christmas Day!
January 1st 2018	No Meeting On New Year's Day! ***StARS 80th Year Begins in March***
January 8th 2018	On Air. Informal. DMR Group.
January 15th 2018	Main Meeting. ***JT65 & FT8 Digital Modes by Wayne M5LLT***
January 22nd 2018	On Air. Informal. DMR Group.
January 29th 2018	On Air. Informal. DMR Group.

Editor's Waffle

It's November and time, once again, for the ***Annual Surplus Sale***. Here, you may offer, for sale, any unwanted items with an emphasis on radio and electronics use. You can, of course, offer other items, too. As you will know, the format is an auction style sale, so if you are offering items with a high(ish) value, you should place a reserve price on it. Hopefully, it will be a successful evening for you and the Society. If you are unsuccessful, you could always place a FREE advert in the Newsletter in order to attract a possible sale. Send to Editor at robg4xom@outlook.com

I've been wondering if we have any musicians in the Society. I know Ross M6RLZ, Tim G7TAC and I are at various levels of experience. I admit that I am self-taught and don't claim to be any sort of an expert. Playing the Irish bouzouki, [with some practice] I can be a reasonably competent accompanist, but with the bodhrán I know I am pretty good, having played with some of the top Irish trad bands and in hundreds of music sessions in Ireland and always being encouraged to continue. So, to ask again, do we have any other musicians in the Society? Let me know at a meeting or on robg4xom@outlook.com

You will have noticed, on the calendar, that I had noted that the 80th Anniversary year is from January 1st, but I was reminded, by John G8UAE, that our year actually begins in March, so I have re-worded the comment to allow for this oversight. As we have a few months before this momentous date, we should begin thinking how we can celebrate this anniversary over a 12 [to 15] month period. Special Event Stations should be a major part of the year, possibly applying for GB6OI, or even using the club calls [as GX6OI, GX6SRS and GX4CVK]. If you have any ideas about this, please have a word with one of the Committee, or send to me at robg4xom@outlook.com and I will QSP your suggestion. Remember, it's ***your*** Society and your input is always welcomed. Thanks.

Whether it's what you've built, where you've operated from, how you've failed or your shack and antennas. People are far more interested in what you've been up to than you might think. I challenge you to put pen to paper and in some small way help our STARLITE to improve and, hopefully, become more interesting for the membership and the non-members who are on the distribution list. For those of you who are not members, why not pop along to one of our regular meetings, even if it's just to say hi. You will be most welcome.

Saw this somewhere on t'internet and thought it would be a useful reminder:-

Licence Revalidation

Although we now have 'lifetime' licences, don't forget that it is necessary to revalidate them every five years or they will lapse.
If you do let your licence lapse, it will cost you £20 to renew it.
Licences can be revalidated at any time; you don't have to wait the five years.

The easiest way to revalidate your licence is by contacting Ofcom online via their website: www.ofcom.org.uk or by email to amateur.validations@ofcom.org.uk
Alternatively you can 'phone Ofcom direct.

At a recent meeting, someone suggested that we should have a Club project. Something we could have a go at constructing and would be useful for all to use in their home shacks. I have no idea, at present, what to suggest, so it's over to you. These photos were taken at the same meeting and may, or may not, have included this idea.

I have no embarrassment in saying that, before I took a sabbatical in 1996, I was very interested in operating on 70cms. Between 1990 – 1995, I had a modest portable station, with no more than 10 watts to a 48-element Multibeam.

Together with G4IEB and G7BVV, I would travel to places, like the Long Mynd, where good contacts could be made.

You can see from the photo that my best contacts were into Czechoslovakia in square JO60, East Germany JO62 and West Germany JN59.

I, also, operated HF with low power [10 watts max] and a simple multi-band dipole. I got about 70 countries before I stopped counting, so I could have DXCC by now, all on QRP. Those who use high power [1kW or more] to big mono-band aerials would in no way get the same sense of achievement that QRPers have. After all, *we* work for our results!

So what were your best or most memorable contacts?? robg4xom@outlook.com is the place to send your submission.

Thanks to Jim G4WAO for suggesting that I look at the VK2MB Manly-Warringah Radio Society presence on You Tube. Lots of good lecture videos on there and well worth a look.

Find them at https://www.youtube.com/results?search_query=vk2mb

VK2MB Facebook page is at https://www.facebook.com/ManlyWarringahRadioSociety/?hc_ref=ARQJazbzENPod7gq0Ft4afymxaSWLa03zRTqbDtprZo17cwi9kSv003zdMr4ZiIIJl4&fref=nf

And the website is http://www.mwrs.org.au/

October 2nd informal meeting was quite interesting. Adrian G0NLA brought along a home-brewed magnetic loop aerial, as shown in these photographs.

The first features Geoff G0KVK, Nick G6DQN [operator], Tony M6AHW and Adrian listening to received signals, even some CW on one band! On the right is the star attraction.

Photo #2 shows Adrian admiring his handiwork. It looks to be a well made, robust aerial and is, presumably, intended for indoor use, as the chunky capacitor at the top is not weatherproofed.

As you will notice, the floor mounting is not ideal, but it worked for the event.

Photo #3, on the right, we see Wayne M5LLT demonstrating some SDR(?) software on his laptop. Showing interest are [l to r] John G6GTB, Bob G4VPE, Geoff G0KVK, John G8UAE, Nick G6DQN and Tim G7TAC.

Although only 11 members were present, it was an eventful evening.

The more observant of you will have noticed that I have changed one word on the title page of this issue. Be assured, it's not a permanent change.

This is not a Committee directive, simply my idea, and is used to reflect the majority of content within these pages.

So, tell me your news. Are you an avid WAB or SOTA operator? If so, from where/when will you be operating in the coming months? Are you a keen DXer? What have you achieved recently? Have you worked anything memorable on VHF and above?

Send your item to the Editor at robg4xom@outlook.com

What word did I change? Don't cheat, but the answer is on the last page.

The following came from Mike VK2UCT (@ VK2MB) via Jim G4WAO.

Why You Really Need to Stop Using Public Wi-Fi

By Luke Bencie

In today's busy world, convenience seems to outweigh consequence, especially with how people use their mobile devices. Using free public Wi-Fi networks, for example, comes with any number of serious security risks, yet surveys show that the overwhelming majority of Americans do it anyway. In a study by privatewifi.com, a whopping three-quarters of people admitted to connecting to their personal email while on public Wi-Fi.

It isn't hard to see that a few moments of online convenience are far outweighed by your money or financial information being stolen, or by suffering the embarrassment of your personal information being publicly released. According to a recent opinion poll, more people are leery of public Wi-Fi networks than of public toilet seats (a promising sign). But an interesting experiment, conducted at the 2016 Republican and Democratic National Conventions, showed attendees' true colours. At each convention, private entities provided visitors with free public Wi-Fi networks (for social science purposes). Around 70% of people connected to the non-secure Wi-Fi networks at both conferences.

Security consultants often find that sex can be an attention-grabbing metaphor to get a client's attention. When we lecture businesspeople about cybersecurity, we compare the dangers of using public Wi-Fi to the risks of having unprotected sex. In both cases, not taking the necessary precautions can lead to lasting harm. For mobile devices, the harm is digital: the theft of your personal data, such as passwords, financial information, or private pictures or videos. You're rolling the dice every time you log on to a free network in a coffee shop, hotel lobby, or airport lounge.

Think the problem is being exaggerated, or that cyber theft only happens to large corporations? Consider that over half of the adults in the U.S. have their personal information exposed to hackers each year. Furthermore, Verizon's annual Data Breach Investigation Report has found that 89% of all cyber attacks involve financial or espionage motives.

There are dozens of online tutorials showing hackers how to compromise public Wi-Fi, some of them with millions of views. The most common method of attack is known as "Man in the Middle." In this simple technique, traffic is intercepted between a user's device and the destination by making the victim's device think the hacker's machine is the access point to the internet. A similar, albeit more sinister, method is called the "Evil Twin." Here's how it works: You log on to the free Wi-Fi in your hotel room, thinking you're joining the hotel's network. But somewhere nearby, a hacker is boosting a stronger Wi-Fi signal off of their laptop, tricking you into using it by labelling it with the hotel's name. Trying to save a few bucks, and recognizing the name of the hotel, you innocently connect to the hacker's network. As you surf the web or do your online banking, all your activity is being monitored by this stranger.

Still not convinced of the risks? Here's a story that should worry business travelers in particular. In 2014 experts from Kaspersky Lab uncovered a very sophisticated hacking campaign called "Dark Hotel." Operating for more than seven years and believed to be a sophisticated economic espionage campaign by an unknown country, Dark Hotel targeted CEOs, government agencies, U.S. executives, NGOs, and other high-value targets while they were in Asia. When executives connected to their luxury hotel's Wi-Fi network and downloaded what they believed were regular software updates, their devices were infected with malware. This malware could sit inactive and undetected for several months before being remotely accessed to obtain sensitive information on the device.

What is the best way to protect yourself against these kinds of Wi-Fi threats? Although antivirus protection and firewalls are essential methods of cyber defense, they are useless against hackers on unsecured Wi-Fi networks. Consider the following seven security tips to keep prying eyes out of your devices:

- Don't use public Wi-Fi to shop online, log in to your financial institution, or access other sensitive sites — ever
- Use a Virtual Private Network, or VPN, to create a network-within-a-network, keeping everything you do encrypted
- Implement two-factor authentication when logging into sensitive sites, so even if malicious individuals have the passwords to your bank, social media, or email, they won't be able to log in
- Only visit websites with HTTPS encryption when in public places, as opposed to lesser-protected HTTP addresses
- Turn off the automatic Wi-Fi connectivity feature on your phone, so it won't automatically seek out hotspots
- Monitor your Bluetooth connection when in public places to ensure others are not intercepting your transfer of data
- Buy an unlimited data plan for your device and stop using public Wi-Fi altogether

The more you take your chances with a free network connection, the greater the likelihood that you will suffer some type of security breach. There is a saying in the cybersecurity industry that there are three types of people in the world: those who have been hacked, those who will be hacked, and those who are being hacked right now and just don't know it yet. The better you protect yourself, the greater your chances of minimizing the potential damage. Remember: Falling victim to public Wi-Fi's dangers is a question of when, not if.

Notes from a recent Committee meeting

It is reported that everything is fine with the Society and that we have no problems. It was, also, stated that SSB Field day was a success (sic).

Wayne M5LLT is planning a talk for January and Tony M6AHW is planning a talk for early in 2018. Topics are to be confirmed.

The roof work on the G5RV will take place at some time or other.

The School requires us all to re-affirm our DBS status.

Thanks to John G8UAE for forwarding these few details.

Following last month's taster, here are details for making 100 Watt dummy loads. Again gleaned from the interwebs, followed by my own effort *Ed.*

A 100 watt 50 ohm dummy load

It's pretty easy to make your own 100 watt 50 ohm dummy load. This is what you need:

1. An empty food can, one of the larger ones about 10cm diameter and 11 to 12cm high is ideal, cut in two at a point about 2/3rds the way up the tin.

2. Two pieces of copper clad board each cut into a disc just smaller than the diameter of the food can.

3. A piece of insulating material such as Perspex

4. A panel mounted SO239 socket

5. Thirty-two 100 ohm carbon resistors rated at 3 watts each

6. A hot glue gun

7. Equipment wire.

This is what you do:

Beg or borrow a small craft drill and stone burr and grind away the copper cladding on the board discs in the pattern shown in *diagram 1*, then drill 2mm holes in the copper sections you have created as shown in diagram 1.

Solder one end of each 100 ohm resistor onto one of the copper clad discs, as shown in *diagram 2*, and then work the other ends of all the resistors through the holes in the other disc and solder them in place. This will be a bit fiddly and you will need a bit of patience - you may find it easier if you cut the resistor leads on the outer edge of the disc a little shorter than the resistor leads towards the centre of the disc, and a pair of needle nosed pliers will be useful as well.

Now connect the coppered sections of the discs together as shown in *diagram 3* and attach the two SO239 leads as shown.

Glue a disc of insulating material to one end of the resistor pack and glue this into the largest of the tin pieces.

Mount the SO239 socket in the centre of the shorter of the two tin pieces and attach the two leads from the resistor pack to the SO239.

Solder the two pieces of the tin together and the dummy load is completed.

The circuit is as shown in *diagram 4*, and you will have worked out by now that 3 watt resistors gives you only 96 watts total dissipation, but if that bothers you just uprate the resistors.

You could pretty it up a bit by painting it or covering it in some way, but I didn't bother.

Incidentally, this is a *very* well screened dummy load.

I have an amateur radio neighbour just a few hundred yards away from my house and when I transmit into the dummy load at 100 watts he can't hear me.

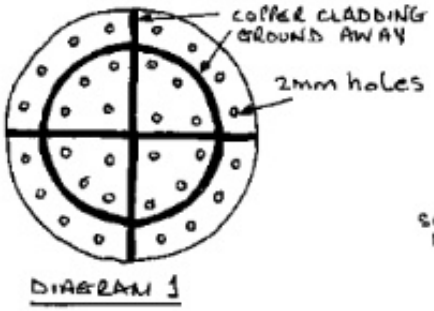


DIAGRAM 1

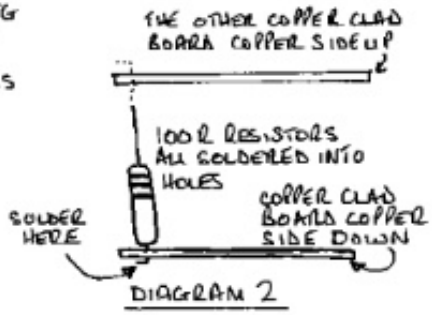


DIAGRAM 2

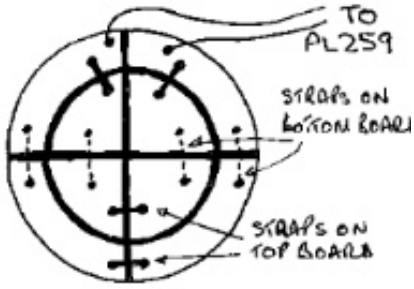


DIAGRAM 3

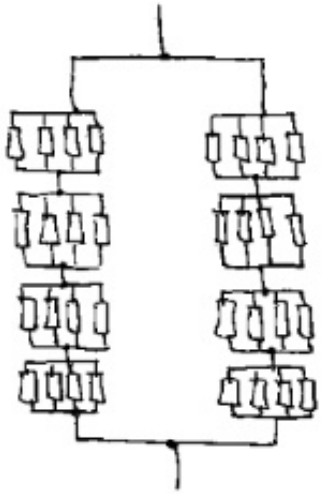
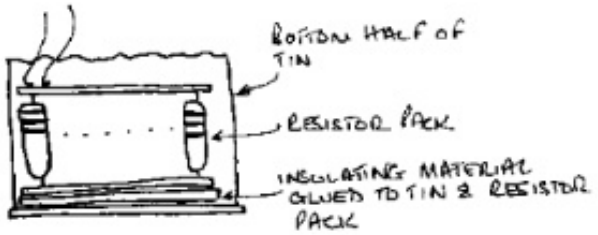


DIAGRAM 4



Jamboree On The Air 2017 - VI2JOTA60 Special Event Call Sign

Jim G4WAO wrote: "*Don't expect this to be of much interest to the club, but it does show the dedication from clubs world wide for JOTA. I thought the club I joined did well with 200 scouts, but this really has a lot to do with 500 attending.*

Where did we go wrong, or did we?"

Paul VK2GX, JOTA coordinator for The St George Amateur Radio Society in NSW, wrote:

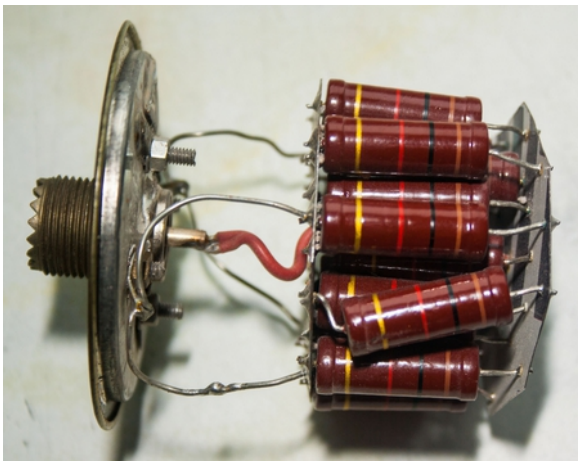
"*As part of the Endeavour Boree Regatta, The St George Amateur Radio Society operated a Jamboree On The Air radio station over the weekend 20th to 22nd October 2017.*

The SGARS JOTA team expected about 500 guides and scouts to experience Jamboree On The Air activity, at one of the largest and busiest JOTA stations in Australia.

In recognition that this year was the 60th Jamboree On the Air, guides and scouts were calling CQ JOTA from Kurnell in Sydney (Captain Cook's landing place) using the special event call sign VI2JOTA60."

Another 100 watt 50 ohm dummy load
by Bob Egan G4XOM

Using the method shown above, I used 20x1k 5W resistors. The centre pin of the SO239 is soldered to the bottom plate of the resistor cluster. To aid with heat dissipation I filled the tin with dry sand, covering the cluster. This will cover 1.8 to 30MHz. The photos show my prototype model from about 1985 which is still in use today.



Coming Next Month: HF Dipole Aerials

YOUR COMMITTEE

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The answer to the question on page 5: I changed the word "Newsletter" to "Journal"