

# QRZ

ISSUE 11: APRIL 2024

THE MONTHLY NEWSLETTER OF THE HALIFAX & DISTRICT ARS



## QRZ Editorial - Max G4SDX

Spring seems to have sprung at last, and it's time to come out of winter hibernation and go play radio in the great outdoors – or at least your back garden when the ice eventually melts on the bird bath. It's also time to fix all the stuff that broke during winter storms and get the antennas down for a check over.

Club night is now shifting over to the spring/summer calendar and the 'evening entertainment' will become a little more relaxed and more socially focused, while we help a large number of our Foundation and Intermediate licensees gain those recently granted extra Ofcom privileges.

I want to stress that we have decided to carry out our training in the main club room so as not to split our club night up too much, and I really want to stress that ALL members who attend on club night are MOST WELCOME to sit round with us and listen to, or join in with, the training sessions. If you want to polish up on your basic electronics, or learn more about the hobby outside of just passing the exam, then please feel free to join us. Grab a pot of tea, pull up a chair, and join in with our license training Storytime - think BBC 'Jackanory' but with applied physics!

Responses to our appeal for help with the Cragg Challenge are coming in nicely now, and I'll be keeping you all up to date in future editions of 'QRZ', on how the arrangements are progressing, as we have further meetings with the Cragg Challenge committee.

It was also nice to hear members joining in together and car sharing to the recent Rippon Rally, and also hearing plans being discussed to attend the up and coming NARSA Rally in Blackpool later in the month. NARSA bills itself as one of the premier events in the north, although the after effects of Covid and the cost of living crisis seem to have knocked it back a bit in recent years. If you fancy a trip over, the **NARSA Northern Amateur Radio Societies Association Exhibition (Blackpool Rally)** is held in the Norbreck Castle Exhibition Centre, Blackpool FY2 9AA.

Quite a short newsletter this month as I'm doing overtime on the training courses and other club business, but hopefully we'll have more to share next month when our summer plans for events and portable work are finalised. Apologies and excuses in advance for any typos in this edition, as I'm up against the clock this month! Finally, may I wish everyone a very Happy Easter and hope that you can get some radio time over the holiday period.

Cheers and 73, Max Townend G4SDX : HADARS 'QRZ' Editor

## CLUB NETS

- Monday from 7pm - the SSB and FM SSTV Net which alternates each week. 144.390 for SSB, 144.525 for SSTV
- Tuesday from 7pm - 6m Net on GB3WY listen on 50.800MHz, transmit on 51.300MHz with CTCSS tone of 82.5Hz
- Wednesday from 7pm - 70cm Net on GB3HD listen on 433.225MHz, transmit on 434.825MHz with CTCSS tone of 82.5Hz
- Thursday from 7pm - Joint RAFARS/HADARS Net on 145.350 FM
- Thursday from 7.15pm - 'MS Teams' Video Technical Conference Call - see Hardy G5HWB for details
- Sunday from 7pm - 'MS Teams Video Conference' - License Training support Group. Extra help with the exam syllabus and practice questions. See Hardy G5HWB for details.

## CHAIRMAN'S MONTHLY UPDATE

Right - Down to brass tacks I'm afraid.

As you have all no doubt heard, the Cragg Challenge event is approaching rapidly, and as an opportunity to showcase the club and the skills held by the members we may have to be quite regimental in our approach. First of all, Thank you to our volunteers, you have been numerous and enthusiastic. In the coming weeks, there will be paperwork issued to all of you. This paperwork is to ensure you have all the information needed regarding your role in the event and what we expect our operators to do. Fret not, we haven't a firing squad at the ready.

The mainstay of your time will be within a vehicle getting to know your radio partner, the most important part of the rest of the time is to clearly transfer information back to me at control. We are not going to throw you in at the deep end, I'll be running a practice session with groups of 3 over the next few weeks to ensure you're all comfortable with the format we will be using. Flash cards will be provided to assist on the day as well.

As we cannot be sure what the day will bring, please bring provisions and spare equipment in case of failure. It is important to remember that the road is closed to all traffic, hence the early arrival of you all to positions, as once the race begins you will not be able to go anywhere else unless chaperoned. We are expecting no issues on the day but as you never know, I'll keep you on your toes by calling in for a radio check in the morning, and to make sure everyone is still alright throughout the event I will call sporadically.

Good footwear and clothing is necessary as some may be on foot as "runners", don't break a sweat just yet, that doesn't mean you will have to run about, simply that you may need to walk to the Marshalls from your vehicle to get information to relay back.

Of course I will provide a presentation closer to the time to describe exactly what we want from you. Do not, under any circumstances, become involved in people coming through the road blocks, tell the Marshall and radio control. We are not security, please keep this in mind, people have been known to be argumentative in previous years but we do have the CC Foot Marshals, Bike Marshals, and Police presence available to deal with it.

To end, we hope you have fun doing something different, and maybe get some free snacks too!

All the best,  
Hardy,  
H.A.D.A.R.S. Chair, G5HWB.

## HADARS CLOTHING UPDATE

As some of you will know, Deborah Sykes has been doing some amazing work on here embroidery machines, helping us to get our club image and logos up to date for the new season. I'm also grateful to those who've helped with artwork and other file conversion work with the graphics.

If there is anything you want that you think will work with Deborah's machines, please talk to Deborah to see what can be done. Deborah charges a minimal fee to cover materials and machine time, and also makes a donation to the club for every item she produces.

We'll update you all when we have some of the final new club graphics available.

## APRIL 2024 CLUB CALENDAR

Date	Event
Tuesday 2nd April	<b>Club Presentation for the 2024 Cragg Challenge Event.</b> Information and background on this HADARS Community Event for anyone interested in volunteering. Training class continues from 7.45pm
Monday 8th April	<b>RSGB 80m CC Contest - CW Round.</b> 8pm until 9.30pm UK time
Tuesday 9th April	<b>CLUB NIGHT SOCIAL,</b> Opening Talk on FEEDERS, followed by License Training Class
Tuesday 16th April	<b>CLUB NIGHT SOCIAL,</b> Opening Talk & License Training Class
Wednesday 17th April	<b>RSGB 80m CC contest - SSB Round .</b> 8pm until 9.30pm UK time. <b>If you can add a few phone contacts to our score in this event it would be very welcome. Send your logs to Max G4SDX or Dean G4DBI.</b>
Thursday 18th April	<b>IARU World amateur Radio Day</b>
Tuesday 23rd April	<b>CLUB NIGHT SOCIAL,</b> Opening Talk & License Training Class
Thursday 25th April	<b>RSGB 80m CC contest - DATA Round.</b> 8pm until 9.30pm UK time
Saturday 27th April	<b>International Marconi Day Celebrations - 150th Anniversary</b>
Tuesday 30th April	<b>CLUB NIGHT SOCIAL,</b> Opening Talk & License Training Class

Note: Themes and content for Club Night Opening Talks are often subject to change depending on the workload of our resident speakers. We do aim to open each club night with a short 20 minute talk on a topical subject, to get the evening off to a friendly and communal start. The Title for each talk will usually be announced on the Club Community and Members Facebook pages, on the weekend immediately before the meeting.

## CLUB NIGHT LICENSE TRAINING CLASS UPDATE

For those that attend club night regularly, it cannot have escaped your notice that our new club night license training class has been overwhelmingly successful, far more so in fact, than we at first realised it would be. The practicalities of getting this running smoothly will take a little while to settle in, and I am eternally grateful for the forbearance of our regular members, who just come down to enjoy the social side of club life. Judging the varying needs and license levels of the large study group, this is a steep learning curve for me as well as for the students.

The first few weeks of the new course were always going to be particularly difficult, as the course is basically only built round the Intermediate syllabus (assuming some prior knowledge of the old license conditions), and had to be written with only the recently published new Ofcom guidance notes as a basis for the lesson plans on License Conditions and Operating. These are the two sections of the new syllabus most affected by the recent Ofcom General Variation notice.

I assure you all that it will soon get more interesting as we start talking about real radio (as we will from the first week in April) and not just the legal terms of the license. The first few sessions were really a whistle stop tour of the changes to the license conditions, rather than an in-depth study, so I will make sure everyone is up to speed as we go through the course and the later revision sessions.

Don't forget that Hardy & Dean are offering on-line live video conferencing to support your learning, and that we have the new WhatsApp study group that Dean has set up for us to share questions and comments. The On-line study group meets every Sunday evening at around 7pm, and Hardy G5HWB will provide you with sign in details and reminders each week. The group uses Microsoft 'Teams' Videoconferencing, and this normally works through the MS Outlook calendar. However, you can sign in to the meeting on any system by following the supplied link on your web browser. I have tested this on Windows systems, Mac, and tablet applications, and it is compatible with all.

## CONTEST NEWS, ACTIVATION ACTIVITIES AND SPECIAL EVENTS

The big award event this month has to be **Marconi Day**, which will be held this year on **Saturday 27<sup>th</sup> April**. This year the event, which (as always) is coordinated by the Cornish Radio Amateur Club, will be a truly international festival to celebrate 150 years since Marconi's birth.

Radio clubs from all around Europe and the USA, but in the UK and Italy especially, will be hosting special event stations from prominent places and historic sites that have some connection with the great man, either from family perspective, or as part of his work as the father of modern radio.

There will be a special certificate awarded for stations establishing direct

two-way communication with 15 different official Award Stations. Mixed modes are permitted in the log (mixed modes CW, voice, data). The challenge runs for 24 hours from 0000 UTC until 2359 UTC on Saturday 27<sup>th</sup> April. Full details along with a list of all official Marconi stations can be found at [IMD Award - \(gx4crc.com\)](http://IMD Award - (gx4crc.com))

Listen out particularly for GB4IMD the Headquarters Station operating from Marconi's historic site at Poldhu Wireless Station in Cornwall, and for the Lizard Wireless Station GB4LD. Exotic DX might be had if you can catch VP8VPC from Port Stanley in the Falklands, or one that I'd love to work, K6KPH at the Maritime Radio Historical Society, California, (home of the 'KPH' 'Night of Nights' Maritime Station).

Listen out typically on 40m for daytime contact with UK Marconi stations, or 80m if you're a late night operator, or an early bird. Higher bands are likely to bag you some DX in this award. If you want to hunt down something a little different, try for DL0BRF from the Light Vessel Borkumriff, Borkum Island, Germany. If you want to really honour the tradition of Wireless Telegraphy, why not try to work a few on CW?

To add to the interest, I'll offer an award and certificate for the highest scoring HADARS member on the day of the event. What's not to like? Send your log summary to me at [George.townend@btinternet.com](mailto:George.townend@btinternet.com)

### **RAFARS "Airfields On The Air"**

The RAFARS Annual Event "Airfields On The Air" (AOTA) will run from Saturday 23<sup>rd</sup> March, and culminate on Sunday 7<sup>th</sup> April, with Royal Air Force Amateur Radio Club coordinating many special event stations from former and current RAF bases, and support sites. Full details here [RAF Airfields on the Air \(AOTA\) \(rafars.org\)](http://RAF Airfields on the Air (AOTA) (rafars.org))

### **World Amateur Radio Day, 18th April 2024**

IARU is very pleased to announce the theme of: "A Century of Connections: Celebrating 100 years of Amateur Radio Innovation, Community, and Advocacy".

IARU celebrates its centenary in 2025. Since its founding in Paris, France, IARU has worked tirelessly to promote innovation in amateur radio and to encourage the growth of the service in communities throughout the world. Look out for events and activities announced by the RSGB.

Finally, our little team continue to battle away in the RSGB 80m Club Championship. Richard G3UGF continues to show the rest of us a clean pair of heels in the points table, and the recent SSB round on the 28<sup>th</sup> March was noisy, but busy, Hardy had an issue with his antenna minutes into the contest which knocked him out of the running, but Richard, Dean and Myself put together an initial tally of over 200 QSO's between us, so we're still in there fighting.



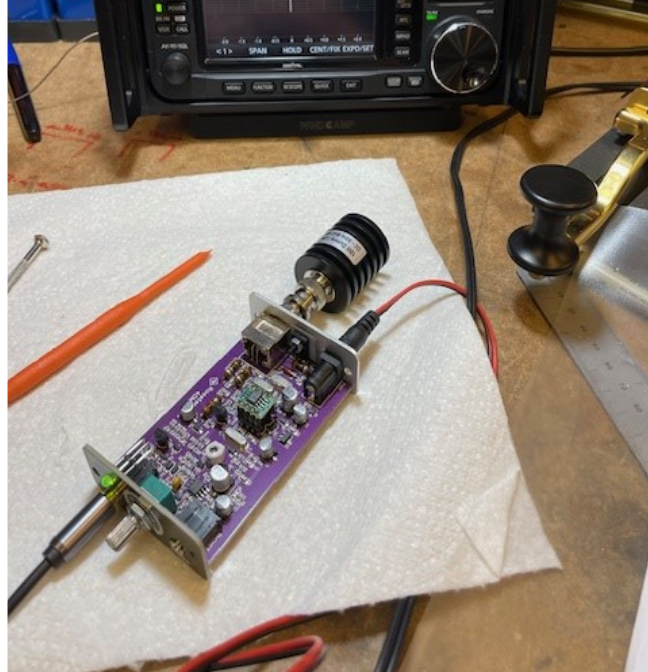
## IN THE WORKSHOP - A KANGA-ROO(ster)

It's been a very hectic few months since the start of the New Year, dealing with endless club business and writing training material, so it was nice to take a break and get back into the workshop for a bit of 'Me' time. In this particular case, it meant half a day knocking together a Kanga Kits 'Rooster' QRP CW Transceiver for the 40m band. The main reason for doing this was to join in with a 2024 member challenge issued by the FISTS CW Club (otherwise known as the International Morse Preservation Society!).

FISTS got together with Kanga kits to promote a Kanga's single frequency, Crystal control kit, specifically for the FISTS Centre of Activity on 7.028MHz. They then issued a challenge to members to build the kit, and work as many club members as possible over the 4 days of first May Bank holiday weekend in 2024, using just 2 Watts of RF. This sounded right up my paddle, so off went my £25 for the kit and back it came a few days later.

To call this a 'Kit' is stretching the point a bit, as its more just final assembly of a handful of discreet components and panel controls onto to a pre-populated PCB. The board already has 90% of the circuit components fitted as miniature surface mount parts. Even so, it does require a very good fine point soldering iron to tackle the tiny PCB tracks and pads that are around 2mm in diameter. Other than getting a bit of soldering practice first if you're new to construction, anyone can build this kit with basic tools and no specialist knowledge.

The instructions are very good, and Kanga have gone to great lengths with this kit to make them as foolproof as possible, aimed at someone who has basic soldering skills, but no previous experience of building a radio or aligning it. You will need a standard 2.1mm x 5.5mm DC concentric power lead to get you started, A pair of headphones with a 3.5mm jack, and a morse key with a 3.5mm jack. You can run the radio from a PP3 9V battery which will give you about 1 Watt output, while 12V will give you 2 watts.



Other than that, you only need some sharp, flush-cutting side cutters (the PCB and Case fit very closely to each other), a good soldering iron with a 2mm chisel tip, or a needle point tip, a small non-conductive trimmer tool to adjust the local oscillator (if needed), and some small screwdrivers. Make sure you use good quality, small diameter, flux-core lead/tin solder. Never mind the damage to your central nervous system, lead/tin is far superior in my opinion, for flow, wicking, and wetting of the pads and leads. Just don't chew the end.

Being Crystal controlled and a direct conversion receiver, the alignment is child's play – simply listen for the local oscillator on a Good HF Receiver (preferably one with a waterfall display) tuned to the spot frequency of the crystal, and adjust one small trimmer capacitor, to nudge the TX Crystal frequency to where you want it. However, don't nudge it too far (no more than +/- 200Hz).



## IN THE WORKSHOP - *Continued*



A final check on TX using one of the shack radios, with the Rooster running into a dummy load, confirmed the stability of the output and the very low harmonics - around -55dBc to -60dBc for the 2nd and 3rd harmonic. The Receiver Independent Tune on my kit (RIT) is a little out, needing about 3/4 rotation to net the receive side tone at 700Hz with my FTDX101, and may need a bit of adjustment, but that is not over critical.

Kanga offer sets of crystals (3 crystals) for 7.028MHz (FISTS Centre of Activity) 7.030KHz (QRP C of A), and there is also a 10MHz (and I think a 3.5MHz) option if you specifically ask for it. Don't be too concerned about a fixed frequency 'Rock Bound', Transmitter. The TX Oscillator is adjusted, as per instructions, to 7.2835 MHz, but The Receiver has an Independent tuning function if the other guy is slightly off your spot frequency, or alternatively, he can pull you in by using his own RIT.

Then all you need is a low loss resonant antenna, a PP3 Battery or a 12V supply (the kit will work from 9V to 14V), a morse key, and headphones. I worked a guy in Kent the other week on 40m, who was using

Rooster kit, and was able to give him a 579 Report. They work – I mean, of course they work! It's CW, the best old-school QRP DX tool in the universe!

I really have to hand it to Kanga Kits – minor parts glitches apart on this occasion, because they offer some cracking little projects, for not very much money. I simply could not have built a similar little transceiver for anything like the money they charge for this kit, by going out any buying all the bits myself. There is no shame in buying a kit, especially if it's cheaper than anything you can do yourself.

First impressions were good, with a clean TX tone and the RX bandwidth being wide enough to hear Stations about +/- 1KHz either side of the nominal TX frequency. This is a single frequency direct conversion RX radio and the crystal filters in the receiver do their best, but I was getting some Intermodulation products from the BBC AM transmitter up on Scapegoat Hill – hardly surprising as it's running about 200KW and is only three miles away as the Crow (or RF) flies from my home QTH.

This radio will make you appreciate the incredible selectivity on even the most modest commercial HF transceivers, but the beauty of CW is that your ear is also incredibly selective when it comes to picking out a particular side tone. It's radio like it used to be and although you will need to have a basic level of CW skill - this need not be at the level of a Western Union telegrapher! QRP CW operators rarely run fast - 12 wpm is quite common and more than adequate, given the generally weaker signals in this mode.

It's a lovely little thing to put together over a wet weekend, and quite simply a lovely thing to own too and I'll leave you with a final thought. It is intended to run with a straight morse key only, but can easily be adapted to run with an Iambic memory keyer. A commercial Iambic Memory Keyer (to allow the use of an automatic paddle key with the Rooster) will cost you around £150 or more. Kanga will supply you with the PCB and all the parts for an equally good keyer for £13, and a really top flight one (The K1EL keyer with the K16 keyer chip) for not much more, around £20. All you need is the box and a few panel controls. That kit is on order as well, so I can use a paddle key with the Rooster. I'll cover this keyer kit in a future newsletter, as it has an interesting trick up its sleeve when it comes to automatically and continuously sending a timed Identification Callsign in CW. Ideal for a Low power Beacon or Repeater using our new Ofcom license privileges.