

C.D.A.R.S.

December 2025

CHESHAM & DISTRICT AMATEUR RADIO SOCIETY MONTHLY NEWSLETTER

ALL ABOUT VINTAGE AMATEUR RADIO

We meet the 2nd Wednesday each month at The Golden Eagle Pub in Ashley Green and every 4th Wednesday each month at the Ashley Green Memorial Hall, Ashley Green, HP5 3PP



Technical

Getting Started in Data
Modes - FT 8 Part 1.

Regulars

*Dates For Your Diary
*Radio Rally Dates
*Contest Results

Want to write something for the newsletter?
Then you can contact me on
cdarsnews@gmail.com

Can't find that elusive part or have anything for sale?
Why not drop me an email and put it in
'For sale and wanted'.

Learn About.....

What are you interested in? Here are a few useful links:



FISTS CW Club

Promoting Morse Code for 36 years 1987-2023

<https://fists.co.uk>

VK3TBS

Learn About VARAC

<https://vk3tbs.home.blog/2024/03/06/vara-varac/>

Essex Ham

FT-8 Basics

<https://www.essexham.co.uk/ft8-basics-explained>

Essex Ham

What is PSK31? The Basics.

<https://www.essexham.co.uk/psk31-the-basics>

Welcome to LCWO.net

Learn Morse Code (CW) Online!

<https://lcwo.net/>

Electronic Notes

What is RTTY? The Basics.

https://www.electronics-notes.com/articles/ham_radio/digimode/s/what-is-rtty-radio-teletype.php

Meshtastic and MeshCore

Information and Downloads to build your own LoRa Node or Repeater

<https://meshtastic.org/>
<https://meshcore.co.uk/>



Morse Code by Ray Burlingame-Goff (SK - 29th July 2021)

<http://www.g4fon.net/>

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Chairman	- Dave Keston (G8FMC)	Secretary	- Malcolm Appleby (G3ZNU)	Treasurer	- Matt Whitchurch (M1DTG)
	- Guy Plunkett (M0GUY)		- John Hall (G0ODQ)		- Peter Holliday (M8PTH)
	- Roger Fellows (M8TGU)				

All the above are members of the committee and can be contacted on cdars-committee@googlegroups.com

Newsletter Editor - Roger Fellows (M8TGU) newsletter submissions to: cdarsnews@gmail.com

Welcome

Welcome to the December edition of the CDARS newsletter. Here we are with just over three weeks to Christmas and the last newsletter of 2025. Where has the year gone? It only seems 5 minutes ago that we were looking forward to a New Year and all things radio that would come our way. Someone needs to slow the clock down!! However, I suppose we have another New Year to look forward to in 2026.

At this point it is an ideal time to remind everyone that the Club's Annual General Meeting is set for Wednesday 28th January 2026 at 8pm. The meeting will be held at the Ashley Green Memorial Hall. Make sure to make a note of the date.



Roger M8TGU

Following on from the talk on Data Modes, and FT 8 in particular, given by Malcolm G3ZNU at the meeting at the end of October Malcolm has put together a two part series on how to get started. Part one this month covers what software is needed and how to download/install it and the initial basic settings needed.

Along with all the regular items Dave G8FMC gives some background on testing out a BHI noise cancelling in-line module. Hopefully Dave's findings will be useful to those who suffer from noise (Most of us!!) on the bands.

Wishing you all a happy Christmas and New Year from myself and all of the CDARS Committee.

Roger M8TGU

Chairmans Ramble

The CDARS Christmas meal is now over & about 15 attended the Crows Nest again. I think a good time was had by all & it was good to see Angie again after some while. The general consensus was that it was slightly better than last year? The earlier date meant they were far less busy, which probably helped?

Your scribe is also attending the NRC (Northampton Radio Club) Christmas meal on the 4th of December, as I am a fully paid up member of that club as well. A few days breather between them, unlike last year when they were on successive days!



Dave G8FMC

Experiments with the 'bhi Compact In-Line Noise Eliminating Module':

Maybe this should be in my pages on Operating & Contesting, but it might be of general interest, so it is here. (Also I was scratching around for copy for these pages this month!)

Having had modest success for some time with a basic/old 'bhi NES10-2' noise cancelling speaker; a few years ago I purchased a BHI in-line noise cancelling module. This was a good S/H deal at the time. I never got around to trying it out until very recently. The long-term project aim was to construct an external Loudspeaker with built-in noise cancelling & headphone output. The ability to have both loudspeaker & phones together, with a separate volume control for the headphones (to cater for a range of headphones) was a key requirement. Needless to say this non-essential (luxury?) facility meant it kept getting pushed down the priority list! i.e. it never got off the drawing board. Maybe now it will?

Having stumbled on this unit recently, I thought I would try it out with my FTDX-10 on the 70MHz UKAC contest. 4m is always a noisy band & of recent months my local broad-band noise to the East has become quite dire; about +15-20dB on quieter directions.

Now modern DNR (Digital Noise Reduction) in radios has become quite sophisticated & the Yaesu FTDX-10 is recognised as having one of the best available. Some years ago the big 3 of Yaesu, Kenwood & Icom tried various systems; initially at audio & then at the last IF stages where all the other digital detection & processing is done. (Usually at a frequency of about 50 – 80KHz) It is generally considered that DNR at IF should in principle be better than at audio. The British firm of BHI, who have been in business for many years, however have always concentrated on DNR at audio with external units. These units are actually very good & seem to cause less audio distortion (hollow watery sounds, like down a sewer?) than a lot of the radio manufacturers in-built DNR. (The engineers at Elecraft, with the K3 & K3s, never did quite get that feature to work well, in an otherwise superb radio. Quite a few K3 owners have used external bhi units!)

So I set up the in-line unit, powered for now by internal batteries, using the radio external speaker output & an external speaker on the module output. (Modest power output & intended primarily for headphones) During my operating I was able to switch-in/out the bhi unit & also the FTDX-10 internal DNR. Thus a fairly direct comparison was possible. The results proved interesting:

1. Yes, the FTDX-10 DNR is possibly slightly better than the bhi, but needs frequent adjustment of the level control for best results, with my dramatically varying noise levels, dependant on where my beam antenna was pointing! Such adjustments require some tricky button pushing & knob twiddling and/or diving into the menus & use of the touch-screen. (Oh how I hate touch-screens!!!)

continued.....

2. The bhi 'Filter Level' is a rotary knob, which is 1,000% easier to adjust in a hurry when trying to hear a contest exchange!
3. The audio distortion, colouration & clarity of a contest exchange was marginally different between the two units & my personal preference was slightly in favour of the bhi unit?
4. When one releases the PTT (footswitch in my case) & goes back to receive, the bhi unit gives a burst/surge of noise before settling down, which some might find annoying, but I think I can live with that?
5. When using the Voice-Keyer (recorded "CQ Contest G8FMC") The 'Monitor' audio is rather strange & distorted, with a varying level! The bhi unit is trying to cancel the noise in my voice! (Solution - Turn down the 'Monitor'?)
The transmitted audio is of course unaffected.
Obviously the FTDX-10 does not have this issue.

I am inclined to think that all these filtering aids are not much better than a good brain & pair of ears in the short term, but substantially lessen 'Listener Fatigue' over time?

Further assessment is needed, but at the moment I am tempted to go back to my K3s plus Transverter for 70MHz, but using the bhi module? (The K3s + P3 Display has many useful features that for me are a very big improvement on what the FTDX-10 can offer)

An additional note regarding the (successful) use of the bhi NES10-2 Noise cancelling speaker:

Some folks (including me) have had trouble with the bhi speaker unit picking up RF & burping at you when transmitting. After a lot of experimentation I discovered the following:

1. DO NOT use the same 13.8V PSU as the transceiver. A small dedicated PSU for the NES10-2 ONLY is essential.
2. Put clip-on ferrites on both the 12v supply and audio input leads. If possible use several turns on each ferrite.
Remember that 2 x passes through the centre of the core will give you 4 x the impedance to the (unwanted) RF! Similarly 3 passes will be 9 x impedance.

I hope that helps a few who have tried & discarded the simple NES10-2 & possibly other bhi units?

73 all, Dave K, G8FMC (Chairman & Contest Coordinator)

More info on the BHI Noise Cancelling In-Line module can be found at the link below:

<https://bhi-ltd.com/products/noise-cancellation-products/dsp-noise-cancelling-in-line-modules/7-com-pact-in-line.html>

Contests/Operating

Well, the inevitable happened & several results came out just after drafting last months words! Overall results & placings in the relevant contests were unaffected though.

Major change in contesting for CDARS (& NRC) for 2026:

Your scribe attended the Northampton club's AGM on Thursday 6th November & was invited to speak about our joint cooperation on contesting. An interesting evening! NRC (Northampton Radio Club, NOT the National Radio Centre at Bletchley Park!) & CDARS have been working together since 2019 very successfully. Back then NRC had about 25 members & CDARS only about 18. Two small(ish) local clubs pooling contesting resources seemed a good idea & has produced excellent results over the last 7 years.

Now NRC have 73 members & CDARS about 28? It seems there is a faction at NRC who feel our cooperation is not right & each club should stand on its own. A lengthy discussion about contesting at NRC took place that was civilised, but some significant differences of opinion were aired. A vote was taken & for next year at least, NRC will do their own thing. This means that at CDARS we are also on our own for 2026, although we have a few Associate Members as part of our team. This may influence our approach going forward?

The UKAC progress for 2025: (under the NRS banner)

Almost there, but we should hold onto our lead at the top of the 'Local Clubs' division. Hereford seem to have whipped up all they can muster to close the gap, on some bands, but we hope it is too late? Current status at the time of writing:

NRC & Friends	= 5201pts (Normalised 1000pts on all bands except SHF)
Hereford	= 4045pts
Spalding	= 3151pts

80m Autumn Series: (points to CDARS please)

The support for this series is still at a rather disappointing level; just 5 of us so far. Are there not any others who can get on 80m? However we have now risen to 8th out of 31, mainly because of John G4CZB/P. Interestingly it seems we would be 4th out of 30 in the General Club category?

AFS Superleague: (CDARS and friends)

Not surprisingly Camb-Hams won the 50MHz event, with CDARS in 5th place. That means that CDARS is now in 3rd place overall. The 160m Club Calls was the next event in this series & at G8FMC I took the easy option this year & pressed my 80m EFHW wire into service as a 160m quarter wave. I scattered a few radials around the front garden & around the house, one extending down the back garden almost underneath the AE wire. (We need NVIS for this event!)

We had 4 of us on, so a full 'A' team; John G4CZB (CW & SSB) Charlie G0SKA, Dave G1MZD & myself all on SSB only.

continued.....

I gave our new club call an airing, as the designated 'Club HQ' station, using GX3CHR. I did a mix of running & S&P (that is calling 'CQ Contest' plus 'Search & Pounce', for the non-contesters). My severely compromised antenna worked better than anticipated although not in the same league as a full sized Dipole. With almost half of my 0.25 wave wire over my house & therefore close to my neighbours houses, there was significant noise on RX, but again not as bad as feared. I did however also use a wire loop RX antenna about 1m above ground (wrapped round my summer house at the bottom of the garden) for some of the contacts. Whilst this is some 30dB down on the TX antenna, the noise is at least 35dB down. Thus an improvement in signal to noise ratio of almost 6dB!

It helps to have a radio like the Elecraft K3s, which has a dedicated separate RX antenna input. The main TX/RX antenna connection had NO preamp & 15dB of attenuation (160m is a very noisy band) The RX only antenna input had preamp ON & obviously NO attenuation. There are not that many Transceivers that have that versatility.

It got very slow after the first 2 hours & I had a period of 35mins without any contacts. There was a small flurry during the last 30 mins, so it did pay to keep going until the end.

We managed a very creditable 4th place out of 23 clubs in the Local category, whilst still retaining our 3rd position overall. The next event in this series is 144MHz on Sun 7th Dec.

P.S. on my temporary 160m antenna:

The resonance seemed to be at about 1.76MHz; with the SWR over the SSB band varying from about 3:1 to 5:1 at the top end! My KAT500 tuner easily coped with this, but a better solution for next year would be to put a series capacitor at the feed point, to tune out the inductive reactance. With a power limit of 32W on this band the demands on this series capacitor are very modest. I aim to try that next year.

Other HF Contests:

I also had a dabble in CQ WW SSB using G3MDG, all S&P & chasing countries & CQ zones, rather than numbers of QSO's or points. The main emphasis was on 40m DX during Saturday night -time (where my vertical, previously mentioned, seems to work rather well)

I dipped in & out for some of Sunday & made a few contacts on both 80m & the higher bands. I have a Delta-Loop for 20m, although horizontally polarised, which is more suitable for relatively short skip. (I tried it in Vertical mode, where it had brilliant Low-angle radiation, but that peaked my local noise!) It was also pressed into use for 10m. Also 15m was operated using the 40m vertical. My KAT500 Auto tuner was earning its keep, as on the 10m & 15m bands the match was not good! My score & band stats were:

Band	QSO's	Points	Zones	Countries	Pts/QSO
3.5	31	31	4	18	1.0
7	40	46	6	19	1.2
14	24	30	5	18	1.3
21	11	29	5	7	2.6
28	25	71	9	13	2.8
Total	131	207	29	75	1.6

More time on the higher bands would have given me more points, but that was not my aim. Conditions on most bands were very good, especially on 10m, where perversely I did not spend much time!

continued.....

My very first contact of the contest was on 40m Saturday night; TO4K in St Barthelemy, not far from the British Virgin Islands at 6,540Km! Stonking signal with Pete G4CLA & 3 other Brits having made quite a journey for the contest! (That man gets everywhere!) I got straight through on my first call. (I told you that 40m vertical works well for DX!) I hope they got out of the region before the hurricane hit?

Of course the lead teams would have made several thousand QSO's with massive scores. Some of the stations & particularly antenna farms used were almost unbelievable though. Look up on qrz.com: DR1A, OM7M, 9A7A, ED1R, K1LZ, CX5A & NJ4P.

Most stations responded quickly to my call, except when there were many others calling, when a few more tries were needed. There were a few stations later on Sunday that were calling 'CQ Contest', without anyone else responding. They still seemed to have some difficulty hearing me? Either their RX capability was limited by QRM, or they were running an interesting power level?

I think 2KW or less, is the official max of any country in the world & my 500W is only 6dB down on that. When they were 5&9+ & armchair copy, it is a little puzzling why it should be so difficult for them to hear me? Maybe my RX noise is less than some, or maybe the ACTUAL power difference was a little greater? Some countries regulators might be even more hands-off than Ofcom?

When I attended the Friedrichshafen show a few years ago an East European company were selling a 3.5KW HF Ham Band Amplifier! They had the lid off & it was a magnificent piece of engineering to behold, with a truly massive Russian forced-air-cooled valve.

With an in-built power supply it was definitely a two-man lift!

73, Dave K, G8FMC

Annual CDARS Quiz

The 2025 CDARS Quiz

The quiz this year was held on Wednesday 12th November and was kindly hosted by The Golden Eagle pub in Ashley Green. They reserved the rear room for us which was both comfortable and convenient (especially for the bar!).

In former years the quiz has been between members of CDARS and Aylesbury Vale Radio Society (AVRS). With the closure of AVRS it will now just be a CDARS activity but we are always happy to welcome visitors from other clubs. Seven members were in contention this year, this compares with 9 in 2023 and 11 in 2021 – I hope this is not a continuing downward trend!

When setting the questions for a quiz I always aim to have a range of “difficulty” such that everyone has a reasonable chance of a respectable score. Difficulty is, of course, in the eye (or brain) of the beholder – in quizzes you either know the or you don’t know the answer, there’s not much opportunity to work out the answer from first principles. So I did some post-event analysis to see how well that worked out.

Across all the questions and all the contestants, the average score was 47% - a little lower than I’d like so I must have made some of the questions more difficult than I should. Looking at the individual rounds gives some interesting results in terms of the percentage achieved:

Science	59%
Technology	44%
UK knowledge	60%
Music	38%
World geography	40%
General knowledge	53%

So my music questions have (once again) stumped a lot of you, sorry! Great to see that Science and UK knowledge are riding high, but I’m not so sure about Technology (which included amateur radio!).

Congratulations to Marc G5TEA (or G0AZS as we used to know him) who won the contest with a total percentage score of 62%. This means, Marc, that you’re setting next year’s quiz. And no, you can’t run it in Morse code. Marc will now take custody of the G6NB Trophy, which AVRS have now donated to CDARS for



safe keeping and which we will continue to award to the winner of the annual quiz. We were delighted that Roger G3MEH (AVRS) joined us for the quiz, and he presented Marc with the trophy. We wish Roger all the best for his imminent relocation to Leicester and look forward to QSOs from his new QTH.

Malcom G3ZNU

Marc G5TEA (left)
receiving the G6NB
Trophy from Roger
G3MEH.

All About Vintage Amateur Radio

Vintage Amateur Radio.

Vintage amateur radio is a subset of amateur radio hobby where enthusiasts collect, restore, preserve, build, and operate amateur radio equipment from bygone years, such as those using vacuum tube technology. Popular modes of operation include speaking over amplitude modulation (AM), and communicating using Morse code through continuous wave (CW) radiotelegraphy. Some enthusiasts have interest in owning, restoring and operating vintage military and commercial radio equipment such as those from 1940s to 1960s. Some undertake to construct their own gear, known in ham slang as homebrewing, using vintage parts and designs. A number of amateur radio clubs and organizations sponsor contests, events, and swap meets that cater to this specialized aspect of the hobby.

Appeal

Vintage radio enthusiasts contend that the precise digital frequency displays and state-of-the-art, microprocessor-based features of modern amateur equipment lacks the aesthetic appeal and “soul” of amateur electronic gear from the vacuum tube era. Additionally, many find satisfaction in taking commercially-made amateur equipment from the 1930s–1970s, often characterized as boat anchors by US amateurs because of their large size and weight, and carefully restoring it.



Pic. 1



Pic. 2

The proliferation of integrated circuits in modern amateur radio equipment has made amateurs nostalgic for vacuum tube-based designs. Radios that contain solid state parts do not require frequent tinkering, whereas vacuum tube radio equipment is less predictable, lending routine radio contacts more excitement, and giving vintage amateur radio devotees a more primitive experience. Enthusiasts claim that boat anchors sound better than modern equipment, saying that the tube audio from vintage gear is “warmer” and more aesthetically pleasing.

Some hobbyists see vintage radio operation as a valuable asset to help preserve the history and heritage of radio for future generations. They sometimes assist in the restoration and operation of vintage radio equipment for historical exhibits, museums, and historic ships or aircraft. Examples of this are groups of amateurs who restore, maintain, and operate the radio installations of the ocean liner Queen Mary, the engineering heritage site Musick Memorial Radio Station, and the National Register of Historic Places listed Massie Wireless Station. Amateur restoration of historic military radios includes the B-17 Flying Fortress City of Savannah at the National Museum of the Mighty Eighth Air Force, the B-29 Superfortress Enola Gay at the National Air and Space Museum, and the submarine USS Requin at the Carnegie Science Center. Amateur radio operators on various retired maritime vessels, such as the destroyer USS Kidd and the battleship USS Texas, regularly use vintage transmitters to communicate with other ship museums for events like Museum Ships Weekend and National Pearl Harbor Remembrance Day.

AM Activity

Amplitude modulation (AM) was once the main voice mode in amateur radio before being superseded by Single-sideband modulation (SSB). But AM has recently become a nostalgic specialty interest on the shortwave ham bands. A number of AMers operate vintage vacuum tube transmitters in conjunction with separate receivers. Some operators have even obtained old AM broadcast transmitters from radio stations that have upgraded their equipment. Others build their equipment from scratch (called homebrewing) using both modern and vintage-era components. Rock star Joe Walsh is an advocate of amateur radio and an avid vintage gear collector, maintaining nine complete vintage stations in his home, including a Collins broadcast transmitter.

In the United States, amateur radio AM activity can be found on mediumwave, MF and shortwave, HF frequencies (in MHz) which include 1.880-1.890, 3.885, 7.290, 14.286, 21.390, and 29.000-29.200, and feature swap nets that cater to interest in vintage AM equipment.

AM operation has drawn interest from people outside the hobby, such as shortwave radio listeners using inexpensive receivers available to the public. While focused on simple technologies from the past, AMers may also mix state-of-the-art technology with their vintage interests, such as experimenting with synchronous detection to enable reception of AM signals free of static and fading.



Pic. 3

Conversations ("QSO"s in ham slang) are typically configured as "roundtables" consisting of several participants. Interested newcomers are usually encouraged to switch their modern transceivers to AM mode, introduce themselves, and join the conversation.

Classic gear

Amateur radio equipment of past eras like the 1940s, 50s, and 60s that are separate vacuum tube transmitters and receivers (unlike modern transceivers) are an object of nostalgia, and many see rehabilitation and on-air use by enthusiasts. Vintage operating activity is not limited to the AM mode. Many devotees use their "classic" amateur gear from vintage-era American manufacturers like Eico, EF Johnson, National, Heathkit, Hammarlund, Drake, Collins, WRL, Swan, Signal/One, Lafayette and Hallicrafters, to make radiotelegraphy (CW), SSB, FM and RTTY two-way contacts.



Pic. 4

Some enthusiasts define the age parameters of vintage or classic gear as “old enough to exhibit the glow of vacuum tubes”, but the designation may include some early solid state gear

Some even sub-specialize in military radio collecting and undertake to restore and operate surplus communications equipment, much of it dating back to World War II, from AN/ARC-5 command sets and US Signal Corps SCR-300 and SCR-536 walkie talkies to exotic gear like the British Paraset, a small espionage transceiver supplied to Resistance forces in France, Belgium and the Netherlands.



Pic. 5

There is considerable interest in vintage military and commercial radio equipment among EU amateur radio operators, especially gear from British manufacturers such as Marconi, Racal, Eddystone, Pye, and a variety of Russian, German, Canadian, British RAF and British Army equipment, such as the well known Wireless Set No. 19



Pic. 6

“Glowbugs” are a related aspect of vintage radio and harken back to the early days of amateur radio, when the majority of hams hand-crafted their own equipment. Smaller in size than “boat anchors”, “glowbug” is a term used by US amateurs to describe a simple home-made tube-type radio set. The majority of glowbug transmitters are designed to be used in the CW radiotelegraphy mode

Glowbug transmitters having simple, tube-based designs were part of many beginner ham stations. According to author Richard H. Arland, interest in glowbugs has increased among QRP enthusiasts and others with a penchant for constructing their own equipment, and many hams are assembling simple HF CW transmitters. Amateur radio Glowbug enthusiasts can often be heard communicating on the shortwave bands via CW using Morse code.

Clubs, events, and publications

Many vintage radio clubs sponsor special events and contests, such as the “AM QSO Party” sponsored by the Antique Wireless Association, the “Heavy Metal Rally” sponsored by Electric Radio Magazine, and the “Classic Radio Exchange”. Such operating events are not traditional ham radio contests inasmuch as they are a night of friendly QSO’s using home-built, restored commercial ham, broadcast or military equipment. The Antique Radio Club of Illinois operates a vintage radio station as a public demonstration at the Antique RadioFest allowing licensed amateurs who visit to operate the transmitter. The Amateur Radio Lighthouse Society and The AM Radio Network’s “Expedition to Thomas Point Shoal Lighthouse” in Chesapeake Bay, MD commemorated the history of lighthouses with a vintage special event station using the call sign K3L.



Pic. 7

Britain's Vintage and Military Amateur Radio Society, affiliated with the Radio Society of Great Britain, coordinates regular on-air "nets" where enthusiasts gather as well as massive technical files for the benefit of members. The Surplus Radio Society, a Dutch society of collectors of old ex-military radio equipment and other nostalgic receivers and transmitters holds weekly radio activity nets every Sunday on 3.575 MHz CW / 3.705 MHz AM and sponsors several flea markets and exchange fairs each year.

The Wireless Set No. 19 Group, with members virtually worldwide, caters to those who collect, restore and/or operate vintage military communications equipment, with emphasis on the World War II Wireless Set No. 19 radio. Many members are Amateur Radio operators who use the equipment for on-air contacts with others

The ARRL published "Vintage Radio", a collection of articles from QST magazine describing vintage equipment, restoration, and operation.

The Antique Wireless Association of Southern Africa is devoted to the "maintenance and preservation of our amateur heritage" for enthusiasts of older types of short wave radios and amateur equipment, and maintains a museum exhibit in Johannesburg.

Restoration

Repair and restoration of vintage amateur radio equipment may involve replacing vacuum tubes, reforming electrolytic capacitors if needed, replacing any faulty resistors, replacing two-wire power cords with three-wire cords except on transformerless AC/DC radios, and receiver alignment as necessary.

Since vacuum tube gear contains potentially lethal voltages, a number of safety measures, such as discharging power-supply capacitors and keeping one hand away from the chassis when working on powered-up gear, are commonly employed. Some older equipment has a direct connection to the metal chassis on one side of the incoming AC power line, which results in the entire unit becoming electrified if the power plug is inserted backwards. Many older radios, such as vintage receivers, are not safety-fused.[4][38] In addition, those who collect, restore or otherwise use vintage radio equipment may unknowingly encounter harmful radioactive substances, PCBs, and asbestos.



Pic. 8

Source: Wikipedia.

Pic 1. AM Shack of K9OA - By Lucki Louie Own Work

Pic 2. Hallcrafters SX-28 Tuning Dial - By-SA 3.0 Wikipedia Common.

Pic 3. AM-er and Rock Star Joe Walsh WB6ACU - By Lucki LouieOwn Work

Pic 4. Collins S Line (PSU, Rx,Tx,Speaker) c.1960 - By RadiomanPA

Pic 5. EF Johnson Viking Ranger Tx. c 1958 - By Lucki Louie Own Work

Pic.6 Eddystone EC1o Shortwave Receiver c.1067 - By-SA 3.0 Wikipedia Common

Pic 7. Vacuum Tube Transmitter - By-SA 3.0 Wikipedia Common

Pic 8. Glowing Cathode in 2 x Transmitting Vacuum Tubes. - By Michael Weise Own Work

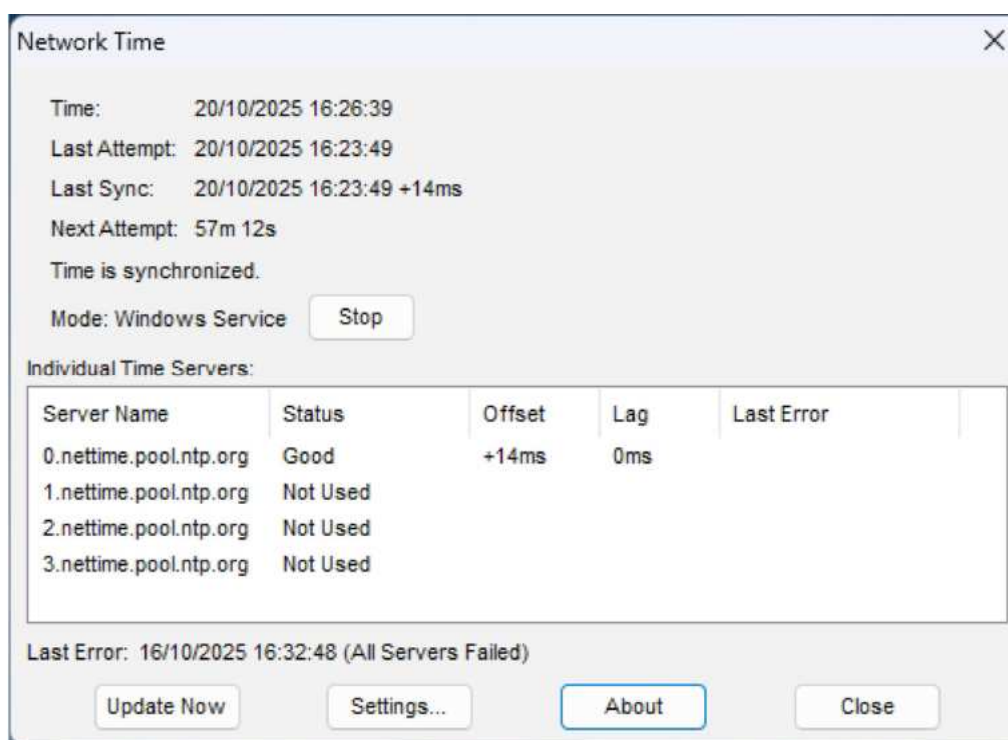
Getting Started with Data Modes - FT 8 Part 1.

Data Modes – Getting Started with FT8 (Part 1)

I gave a talk to the club recently on getting started with data modes – specifically FT8 – and said I would follow it up with a newsletter article going through on a step-by-step basis to help those who want to get going on data modes. I decided to make this a multi-part article so you can dip your toe in the water first and then make steps to full operation.

Step 1 – Get in time

All of the time-slotted data modes need you to keep your PC clock synchronised to actual time. This means regular reference to an external time standard. Fortunately there are plenty of these available on the internet, so it's a matter of installing a small program that runs in the background and keeps the PC clock adjusted. The one I use is the NetTime Network Time Synchronisation Tool – find it at <https://www.timesynctool.com/>. It's free to download and use although (as with many such bits of software) they ask for voluntary donations. The current stable version is 3.14, but the website will let you know if there's an updated version. Download and install it – it should run automatically whenever you reboot the PC. There will be an icon in the group at the bottom right of the Windows desktop. If you double click it, this dialogue box will come up where you can check status:

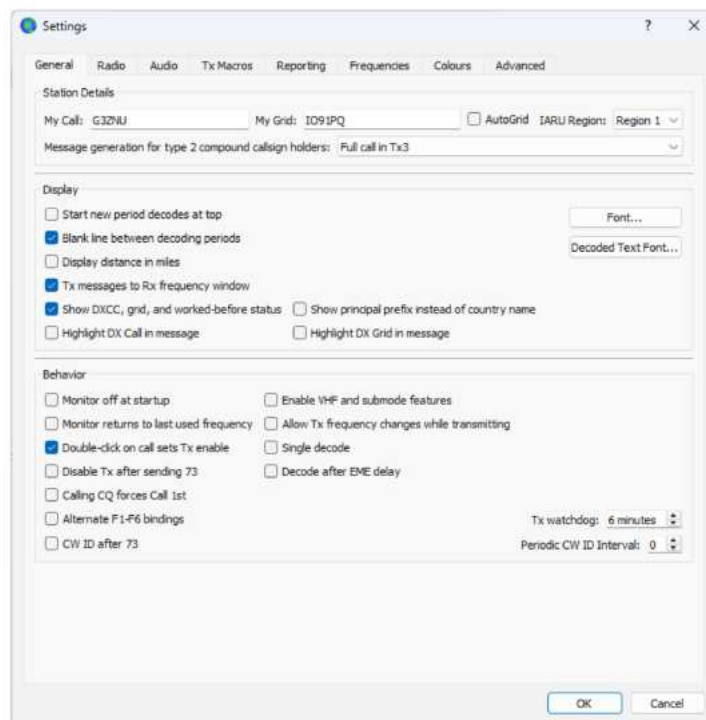


Step 2 – Get WSJT-X

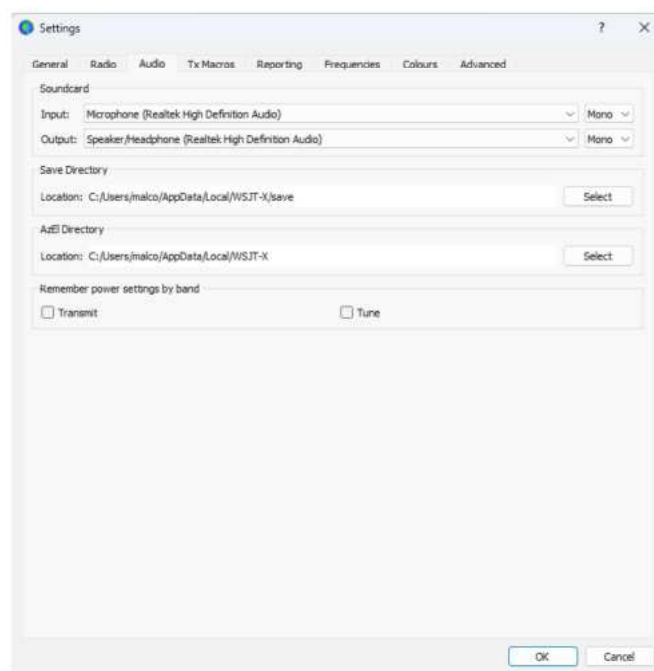
All the FT8 / FT4 and other modes you are likely to use in this family are in one package-WSJT-X. Downloads for this program used to be hosted at Princeton University, but they are now at Sourceforge (probably after Joe Taylor retired). You can do a Google search find it, but the page to go to is <https://wsjt.sourceforge.io/wsjt.html>. It's not a well laid out page – clearly done by amateurs not into marketing – so scroll right down until you find **Installation Packages**. At the time of writing the latest version of WSJT-X is 2.7.0 but 3.0.n is on the verge of being released so it might be there when you get to do the download.

continued.....

Download and install the 64 bit package (unless you have a really old PC still running 32 bit Windows! Run WSJT-X and put in these initial settings



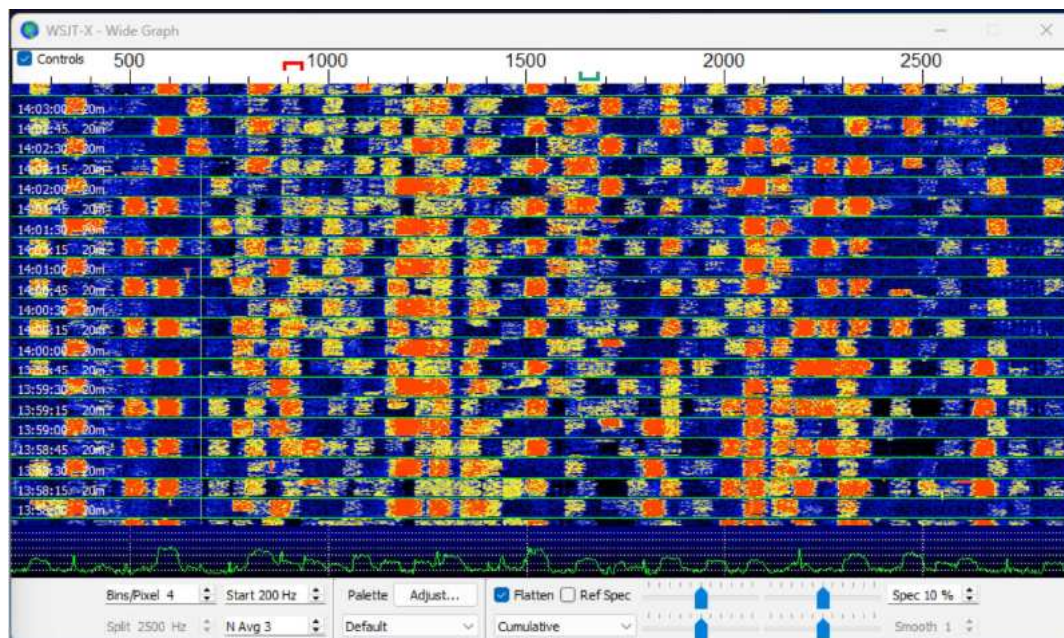
Put in your callsign, grid square and (if it's not selected for you) select Region 1. That's all we need in the general settings for the moment. Click on the "Audio" tab:



To start with we're not going to use a direct connection to the radio, so select the audio input to be the PC's microphone. You can select the PC speaker as the output if you wish, but we're not going to transmit just yet.

continued....

Now tune your rig to 14.074MHz – the FT8 frequency on 20m. Assuming you have an antenna connected (you do have an HF antenna of sorts, don't you?) you should start hearing a large number of tones, each of a slightly different frequency, and each starting exactly on each 15 second point of the minute, and ending at about the 12 second point afterwards. Put your PC within hearing distance of your rig's loudspeaker, and you should start to see the waterfall display fill up something like this:



Just how many stations will appear is dependent on the antenna you're using. Note the recommended settings for the waterfall display at the bottom, which should give you a good display:

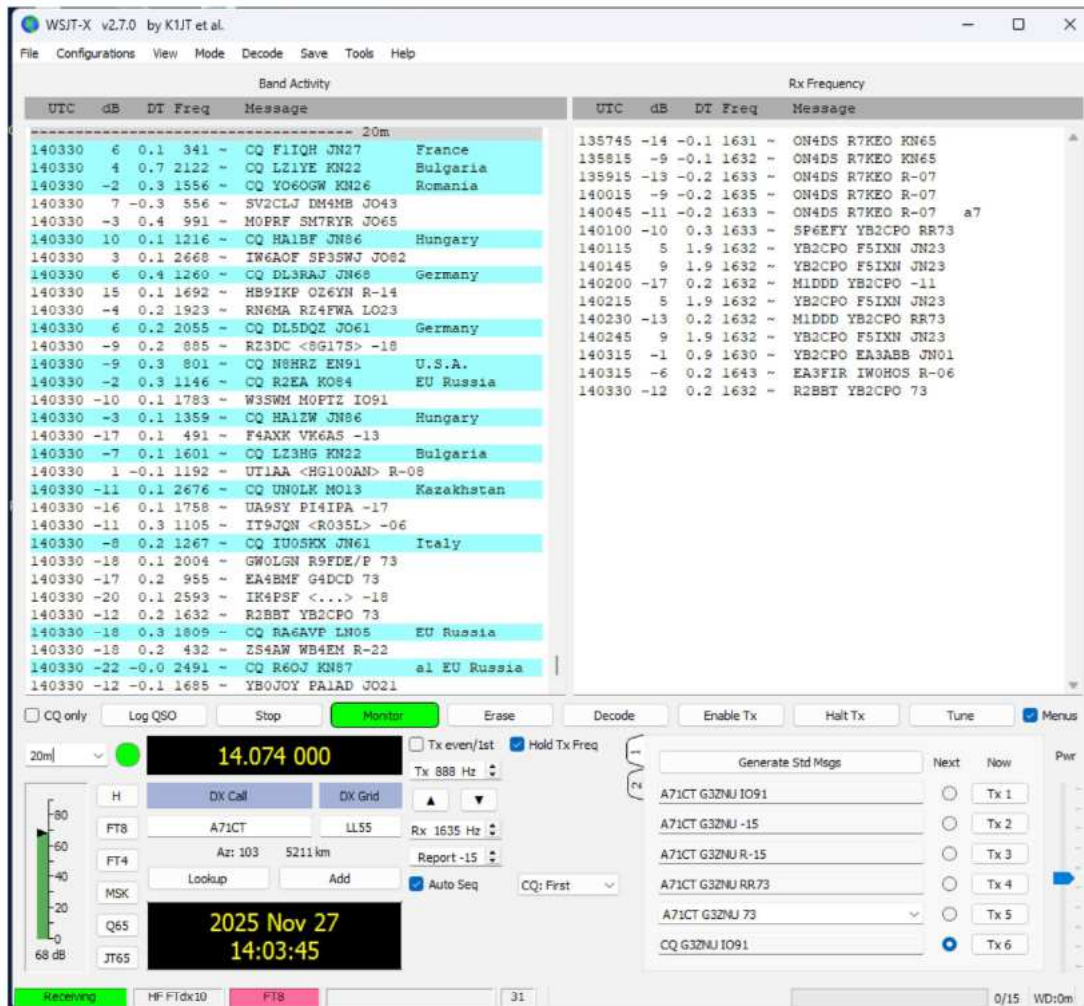
Bin/pixel – 4
Start – 200Hz
N Avg 3

You can see that the lowest audio frequency on the waterfall is 200Hz – that's the setting we've just put in. The highest frequency on the waterfall will depend on how large you have made the display – in the picture above it's 2900Hz.

Typically FT8 users will work all the way up to 3000Hz, so make sure you have opened the display enough so you can see them all. By the way, if your rig has an adjustable IF bandwidth, open it up as much as you can – at least to 3000Hz – again so you decode as many stations as you can. The sliders on the bottom right of the waterfall display can be adjusted to change the contrast of the display – have a fiddle until you find a comfortable setting.

continued....

The main WSJT-X screen should be showing decodes from all the stations you can see on the waterfall, something like this:



The left hand pane is showing all the stations decoded. Every decode period (15s for FT8) more decodes are added and the rest scroll off the top. The right hand pane is showing all the stations that are in “decode window”. If you look back at the waterfall display you’ll see a green marker between 1600 & 1700Hz – any station in this window will show up in the right hand pane. More on this when you come to working people!

Other points to note:

- The green indicator bottom left shows the audio level – try to keep it around the 60 mark
- Stations calling CQ are highlighted in light blue – that’s a setting I’ve installed
- The “CQ only” check box will limit the left hand pane to just show stations calling CQ
- For each station in the left pane, the following are recorded:
 - signal strength in dB (most will be negative, anything above 0 is strong!)
 - time error, compared to your station
 - audio frequency within the audio passband
 - QSO exchange “payload”
 - for stations calling CQ, their country

Try double-clicking on a station in the left pane. The green marker on the waterfall will move to that station’s frequency, and you’ll be in TX mode! See if you can hear your PC sending tones in the right timeslot.

In Part 2 we’ll look at direct audio connection between rig and PC, and then the thorny topic of CAT control! Have a good Christmas tuning in to FT8!

Malcolm G3ZNU

Contest Calendar for Dec 2025 and Jan 2026

December - VHF

Day	Date	Time (UTC)	Contest Name
Tue	02 Dec	1900-1955	144MHz FMAC
Tue	02 Dec	2000-2230	144MHz UKAC
Wed	03 Dec	1700-2100	144MHz FT8 AC (4 hours)
Wed	03 Dec	1900-2100	144MHz FT8 AC (2 hours)
Sun	07 Dec	1000-1400	144MHz AFS
Tue	09 Dec	1900-1955	432MHz FMAC
Tue	09 Dec	2000-2230	432MHz UKAC
Wed	10 Dec	1700-2100	432MHz FT8 AC (4 hours)
Wed	10 Dec	1900-2100	432MHz FT8 AC (2 hours)
Thu	11 Dec	2000-2230	50MHz UKAC
Tue	16 Dec	2000-2230	1.3GHz UKAC
Thu	18 Dec	2000-2230	70MHz UKAC
Sat	27 Dec	1500-1700	50MHz Christmas Contest
Sun	28 Dec	1500-1700	70MHz Christmas Contest
Mon	29 Dec	1500-1700	144MHz Christmas Contest
Tues	30 Dec	1500-1700	432MHz Christmas Contest

December 2025 - January 2026 - HF

Day	Date	Time (UTC)	Contest Name
Mon	15 Dec	2000- 2200	RSGB FT4 Series #12
Sat	03 Jan	1300-1700	RSGB AFS 80m-40m Contests CW
Sun	11 Jan	1300-1700	RSGB AFS 80m-40m Contests Datamodes
Sat	17 Jan	1300-1700	RSGB AFS 80m-40m Contests Phone
Mon	19 Jan	2000-2200	RSGB FT4 Contest

January - VHF

Day	Date	Time (UTC)	Contest Name
Wed	01 Jan	1700-2100	144MHz FT8 AC (4 hours)
Wed	01 Jan	1900-2100	144MHz FT8 AC (2 hours)
Tue	07 Jan	1900-1955	144MHz FMAC
Tue	07 Jan	2000-2230	144MHz UKAC
Wed	08 Jan	1700-2100	144MHz FT8 AC (4 hours)
Wed	08 Jan	1900-2100	144MHz FT8 AC (2 hours)
Thu	09 Jan	2000-2230	50MHz UKAC
Tue	14 Jan	1900-1955	432MHz FMAC
Tue	14 Jan	2000-2230	432MHz UKAC
Thu	16 Jan	2000-2230	70MHz UKAC

Dates For Your Diary



CDARS Net and Club Meetings Dates

December

3rd - Club Net on 2m SSB - 144.320 USB

10th - Informal Meeting at The Golden Eagle, Ashley Green

17th - Club Net on 2m SSB - 144.320 USB

24th - As its Christmas Eve we may advise an alternative date for an informal meet.

January 2026

28th - Chesham & District Amateur Radio Society AGM

Listed below are dates of RSGB, UK and International contests for October 2025

Worldwide Sideband Activity Contest 0100Z-0159Z, Dec 2

SKCC Sprint Europe 2000Z-2200Z, Dec 4

ARRL 160-Meter Contest 2200Z, Dec 5 to 1600Z, Dec 7

Worldwide Sideband Activity Contest 0100Z-0159Z, Dec 9

ARRL 10-Meter Contest 0000Z, Dec 13 to 2400Z, Dec 14

Croatian DX Contest 1400Z, Dec 20 to 1400Z, Dec 21

SKCC Sprint 0000Z-0200Z, Dec 24

DARC Christmas Contest 0830Z-1059Z, Dec 26

Full details and more contests at: <https://www.contestcalendar.com/contestcal.html>

Please double check dates, start/end times etc in good time prior to the event.

Radio Rally Dates.

Full details of the events are available in Radcom & the RSGB website.

December 2025

7th - Mid Devon Amateur Radio & Electronics Fair 2025, Winkleigh Sports & Recreation Centre.

7th – BVWS Swapmeet and Auction Royal, Wootton Bassett, Wootton Bassett Memorial Hall, Royal Wootton Bassett, Swindon, Wiltshire SN4 8EN

28th - Sparkford Radio Rally, Davis Hall, Howell Hill, West Camel, Nr. Yeovil. BA22 7QX.



January 2026

25th – Lincoln Short Wave Club Winter Radio Rally, The Festival Hall, Caistor Road, Market Rasen, LN8 3HT.

February 2026

8th– Red Rose Winter Rally, Mather Hall, Mather Lane, Leigh, Lancs. WN7 2PJ

15th - Mid Cheshire Amateur Radio Society Radioactive Fair 2026, Nantwich Civic Hall, Cheshire, CW5 5DG

March 2026

1st - Exeter Radio Rally, The Kenn Centre, EX6 7UE.

15th – Ripon and District Amateur Radio Society Rally, Great Ouseburn Village Hall, Lightmire Ln, Great Ouseburn, York YO26 9RL.

October 2026

25th - Galashiels Radio & Computer Rally, The Volunteer Hall, St. Johns Street, Galashiels, TD1 3JX.

(All information courtesy of Radcom & the RSGB website)

For Sale and Wanted

SK sale of the shack contents of the late Bryan M0IHY (Items with Dave G8FMC)

ITEM	ASKING PRICE or O.V.N.O.
1. Power Mag 145 – large magnetic mount + cable (new £62) New & boxed.	£40
2. Comet CHA-250HD/BXII Multi-Band HF Vertical Antenna (new £350) 250W SSB 75W Data. See March 2024 PW review. As new,unused	£220
3. Moonraker MRQ750 2m/70cm Mobile whip (new £35) Unused as new	£25
4. HF Mobile/portable antenna PL259 fitting e.g. large mag-mount? Unused	SOLD
5. Modified Cobweb antenna (Polish) (new £200)	£70
6. Sangean ATS-909X2 all-band portable receiver £225 ish new boxed	£150
7. QRM Eliminator X-phase 1-30MHz - £45 new	£25
8. Kent Straight key	£65
9. CW Keyer TC 701 - £70 new	£45
10. Soldering Station (basic) 60W	Offers
11. IGEN Max regenerative receiver. eBay US has an unbuilt kit at £160.	£50
12. Lead-free solder & cleaner (in bag)	Offers
13. SWR meter Moonraker SWR-300 120-500MHz £35 new	SOLD
14. Austcol Radiation Meter MT525 -£25 online average price new.	£10
15. Signalink USB sound Card 8pm. £120 new	SOLD
16. Metro VNA in case (£270 new)	£175
18. Prepp Comm multi-band morse transceiver. Approx £358 new.	£225
19. MFJ Super Hi-Q Loop Remote Control . Unknown model.	?
20. QRP Kits EFHW Tuner	Offers

Please initially contact Dave G8FMC if interested:- g8fmc547@gmail.com