



CARC

CRAWLEY AMATEUR RADIO CLUB

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Note from the Editor

The cover picture on this issue was taken during our efforts at Museums on the Air at Ifield Mill (see separate article).

There has not been a newsletter for a while as I haven't had enough content to make it worthwhile... Suddenly I find I have plenty (for one issue at least!). The newsletter can only survive if you give me articles to include! Many thanks to those who contributed to this edition:

G3VKW

G3ZIY

M0WID

M0KGW

G3VJM

M6KXV

73 Phil

Chairman's Chatter



Hi all,

The Bands have been fairly poor as we are still heading down towards the Sunspot Minima. I saw an SFI of 65 the other day, which is terribly low. I am finding very little to work on the higher bands, however the FT8 frequencies are still humming.

The CarcRats Contest team are busy preparing for VHF NFD (National Field Day) This is the biggest contest on the VHF /UHF Bands. If you wish to be part of the support team, I am sure your offer would be more than welcomed. 6th and 7th of July. For your Diary.

The Cricket World Cup is being held in the UK this year and The RSGB have organised special event call sign's for the duration. We at CARC have 2 Spots available on the 20th and the 29th June from 1200 to 1800 to take part. I have already returned two other earlier dates due to the lack of interest. If any one wishes to take part, we will be using the Club Station and antennas then please contact me ASAP. It is fun working Pileups so come along and get some practice.

David M0WID and others are keen to operate from the Gatwick Aviation Museum for Museums on the Air. On June the 15th and 16th if interested get in touch with David.

John Longhurst G3VLH recently was hospitalised for procedure, however it was a longer stay than expected. So let us hope John is recovering well and soon be back at Hut18.

The " Loo" has been revamped to make it more inviting. However do be careful as the Lid needs to be adjusted which hopefully will be addressed shortly!

Richard G4ANN is building a "Little Dutch Girl" End Fed antenna, the same as Adrian G3VJM and Brian M0KGW have already built and in use, which work very well, and tune, when set up, most HF Bands with low SWR. Richard hopes that it will not be as noisy as the End Fed he is currently using. So if you are looking for a smallish HF Antenna, have a word with any of the three to get an update.

The Club News Letter can only function if Phil M0TZZ gets "Content ". This means articles or snippets to put in it. Sadly over the last few months little was available, so that is why no News Letters have been published lately. If you are twiddling your thumbs as it is raining outside, if you have any Amateur Radio related Content then please type it up and send it to Phil.

Elecraft have announced at the Dayton Hamvention the new K4, So it will be interesting to see and hear them, and also see how they Stack Up against some of the newer Japanese Rigs. Apparently the new Yaesu FT101D has a very good performance, very interesting times ahead.

73 and cuagn sn. (that is CW for see you again soon)

All the best

Keith G3VKW Chairman.

A Sorry Tale of Strong Interference on the 80m and 40m Bands

Brian Minnis (MOKGW)



Soon after I was licenced last year, I became aware of some powerful interference present at the bottom of the 80m and 40m bands that obscures much of the CW parts of those bands. It's present 24 hours per day at a level typically S9+20 dB measured in a 3kHz bandwidth, occupying an instantaneous bandwidth of about 15 kHz on 80m and about 30 kHz on 40m, both instances moving up and down in frequency by up to about 20 kHz, over a period that can vary anything between several minutes or several hours. All the evidence suggests the 40m instance is almost certainly a 2nd-harmonic of the first instance on 80m.

I first encountered the interference whilst tuning around the bands with my main HF rig which is a Yaseu FT-2000. This established a reasonably accurate power reference for the interference and gave a reasonably solid assurance that the interference was real and not just a spurious attribute of the receiving system. I then used a software-defined-radio (SDR) type RSP1A manufactured by SDRplay and the SDR Console V3.0.2 software available from SDR-Radio.com Ltd configured as a pan-adaptor to generate detailed spectra of all the signals and interference that could be heard/seen on both the affected bands at my QTH. The antenna used was a half-wave resonant end-fed. Screen shots of two of the most relevant spectra obtained are presented in Figure 1 and Figure 2 for the 80m and 40m bands respectively. These were taken on the same day just a few seconds apart. Whilst the two instances of the interference do not obscure all of the designated CW segments the bands, they do obscure most of them, especially if the continuous frequency variation is taken into account. Hence this is very unfriendly interference for CW operators. It is also more powerful than the levels shown in the two figures would immediately suggest as the resolution bandwidth of the spectral plots is less than 3 kHz.

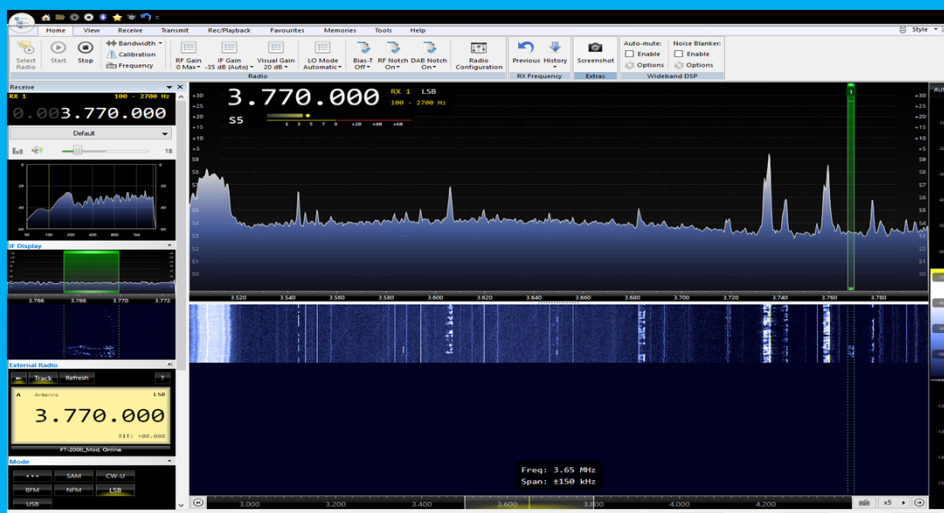


Figure 1 Received signal spectrum on 80m at QTH

A Sorry Tale of Strong Interference on the 80m and 40m Bands

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Brian Minnis (MOKGW)

First steps in trying to identify the interference were to check that: a) it was not being generated in my own home and b), to check if it could be heard by any other local amateur operator. A quick power-down of the mains cleared the house of any blame and the absence of the interference at a friend's QTH 4 miles away suggested that the source was probably in my own neighbourhood. The bandwidth and well-defined shape of the interference hinted that it might be a deliberate multi-carrier type of data transmission but it was too narrow for ADSL or VDSL. A video transmission might be a possibility but its random/variable frequency suggested that it was more likely to be unintended interference emanating from a rogue power supply in some nearby commercial equipment. This would also help explain the 2nd-harmonic on 40m.

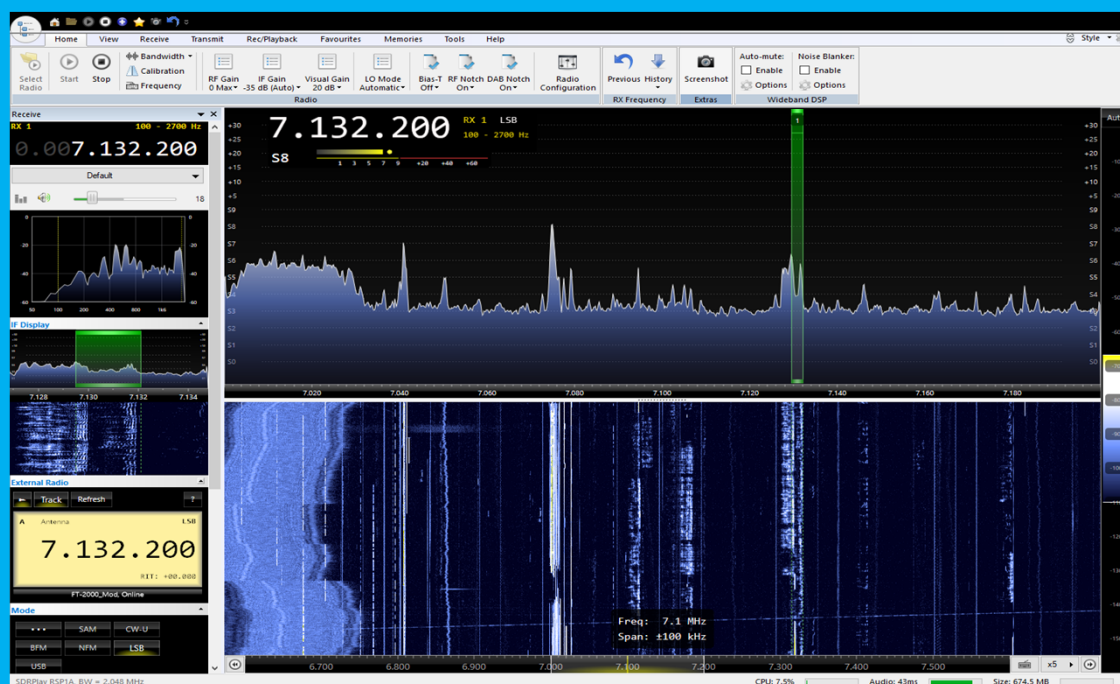


Figure 2 Received signal spectrum on 40m at QTH

With the help of an 80m DF receiver (a generous loan by G3RMK), I was able to track down the source of the interference to a neighbour's house about 200m away. On the approach to the neighbour's house, the intensity of the interference was so high that precise direction-finding became difficult and positioning was only possible to a resolution of about 2 or 3 metres. There was also evidence that the interference was present on nearby mains cables but the strongest indication was that the source was located inside the house. Initial contact with the neighbour was friendly but it took several months to gain enough cooperation to track down the precise source of the interference to his video door intercom system. Pictures of the main display and door units of the system are shown in Figure 3 and Figure 4.

A Sorry Tale of Strong Interference on the 80m and 40m Bands

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Brian Minnis (M0KGW)

What finally gave the game away for the intercom was the disappearance of the interference when the press-to-talk button was pressed on the main display unit. Exactly why this should happen is still unknown as this is as far as the technical investigation has been able to go to date. It's just possible that the signal is associated in some way with the video exchange between the door and main display unit but this is a wired system and therefore should not be radiating. It's also not yet been verified when exactly the video exchange takes place in relation to the PTT function. More likely is that the cause of the interference is a defective power supply (possibly switched mode) whose regulator has gone unstable.

Before leaving the neighbour's property, the SDR was used to capture the spectrum of the interference at a range of only a couple of metres, a short piece of wire being used as the antenna. Hence, the screenshot in Figure 5 helps illustrate just how powerful the interference really is.



Figure 3 Video door intercom
- display unit



Figure 4 - The door unit

A Sorry Tale of Strong Interference on the 80m and 40m Bands

Brian Minnis (M0KGW)

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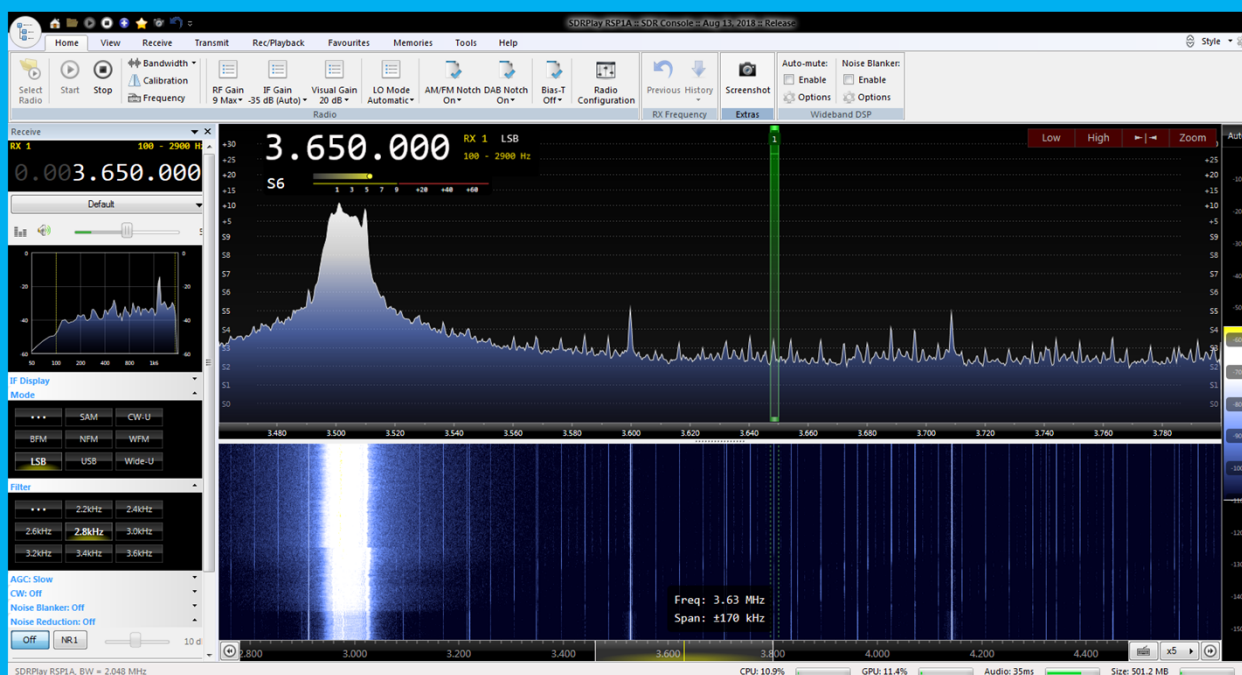


Figure 5 – The interference spectrum on 80m measured a couple of metres from the source

Following this initial investigation, I approached the EMC committee of the RSGB to explain the situation. Unfortunately they were unwilling to offer any practical help. A few weeks later I followed this up with a phone call to OFCOM and spoke to the Duty Engineering Officer. This time the request for help was heard more sympathetically but it was only after much persuasion that they agreed to send an engineer out to investigate. Normally in cases of amateurs experiencing interference, OFCOM is only prepared to offer advice by telephone and/or email unless the interference can be classified as “harmful”. If it is they will, at their discretion, send out an engineer. To convince them it was harmful I had to pass the following criteria: 1) that I had kept a log of the interference and it had lasted for more than 2 weeks; 2) that the interference was not within my control; 3) that my rig was working properly and 4) I had taken all reasonable steps to minimise the interference. More specifically I had to state that I was unable to operate on at least 3 given frequencies within the two problematic bands. So in my case they agreed to send out an engineer but qualified this by saying it would be unlikely they would be able to enforce any corrective action and furthermore, I might have to pay £95/hour + VAT if they came to the conclusion I was to blame.

A Sorry Tale of Strong Interference on the 80m and 40m Bands

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Brian Minnis (MOKGW)

A few days later the enforcement engineer came. He quickly confirmed all my findings and was able to track down the interference himself to the neighbour's house. He contacted the neighbour, explained the situation and was allowed to enter the property and confirm that the problem was with the 10-year old video intercom system. He determined that it was a wired system and therefore not designed to radiate intentionally in the HF, or indeed in any other RF bands. His equipment also seemed to confirm that the intercom system was pumping RF down into the mains, which partly explained why direction-finding was difficult in the immediate vicinity of the house and went some way towards explaining why the interference was so strong at my QTH. Like me he suspected the problem was with the power supply of the video system.

This was the good news. The rest of the news however was not good. After consulting with his duty officer back in the office at OFCOM, the engineer stated that as far as OFCOM are concerned they have no power to force the owner of the offending equipment to do anything to eliminate the interference for two basic reasons. The first was that the equipment was not designed to transmit and therefore did not fall within the scope of the Wireless Telegraphy Act 2006. The second was that the equipment was stamped with a CE mark as evidence that the equipment must have passed the relevant European EMC regulations in force at the time it was fitted 10 years ago. Whether the equipment had become faulty during its time in service or would fail the CE mark EMC requirements in force today was of no real consequence. In his opinion the only thing that really mattered here was that the CE mark was present. Hence, the decision of OFCOM would be that the case would be closed forthwith and that resolution of the problem would be left entirely as a matter of cooperation between the neighbour and me.

A Sorry Tale of Strong Interference on the 80m and 40m Bands

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Brian Minnis (M0KGW)

The main problem with this decision from my perspective was that the initiative to take the next steps rested entirely with the neighbour. Previously I had made a personal offer to the neighbour to help repair or replace his equipment and this offer was conveyed to him for a 2nd time indirectly via the OFCOM engineer. However, despite relations remaining civil, 3 weeks later no further approach from the neighbour had been made, suggesting that the chances of him making any further contact were small and that in the absence of any enforcement from OFCOM, he would choose to do nothing. This meant that I had no choice but to let the matter rest there, with the faulty equipment still radiating its harmful interference.

As a footnote to this disappointing result, new information has come to light provided by a former member of the RSGB EMC Committee. Firstly, it would appear that non-radio devices do fall within the remit of the Wireless Telegraphy Act 2016 and OFCOM do have the power to serve a closure notice effective in 28 days on offending apparatus. The difficulty here is often convincing OFCOM the interference is sufficiently harmful. Secondly, whilst OFCOM were right in observing the presence of the CE mark meant the device was compliant with EMC Regulations 2016 (which implement the current EU EMC Directive in UK law), they were wrong in stating nothing could be done about a subsequent failure of the device when in service. OFCOM have a statutory duty to enforce the EMC regulations under the Wireless Telegraphy Act 2006 and can insist that a defective device is brought back into compliance. Hence, the information given to me so far by OFCOM is not strictly accurate and their conclusion more a matter of preference than adherence to regulations.

I hope this story will be of interest to fellow amateurs. It goes some way to clarifying what OFCOM and the RSGB will and will not do to help radio amateurs experiencing problems with interference. I may still have to put up with the interference but at least I now understand its cause and have done all I can to date via OFCOM to try to have it removed. But there may still be more to come.....

David MOWID's Projects



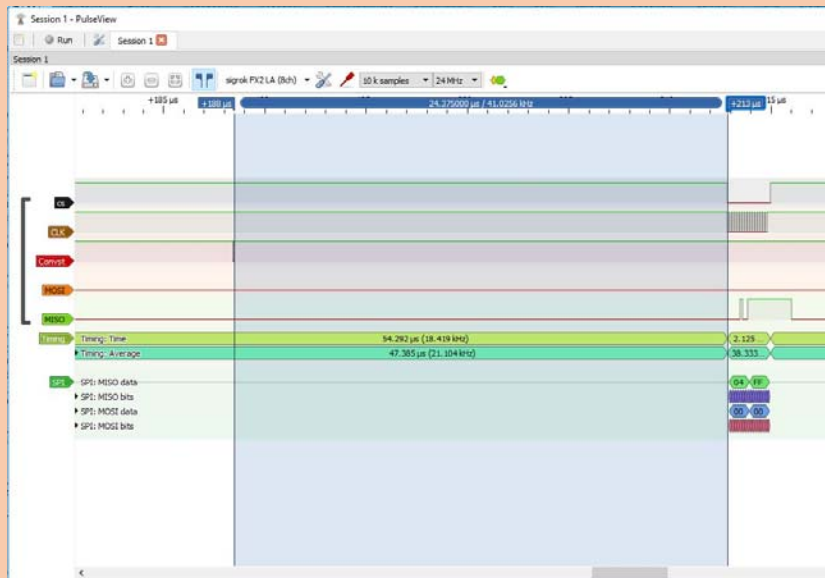
Santa brought a rather useful gift this last Christmas in the form of a basic logic analyser.



Logic analysers are extremely handy when trying to diagnose communication signals between various devices – in my case I was having a problem getting an Analog – Digital convertor to work reliably with the ESP32. The problem could have been with the SPI (Serial Peripheral Interface) signals, or perhaps the timing of the start conversion pulse relative to the SPI read, or something else such as dodgy software on my part! A logic analyser provides a display of the various signals against time, enabling analysis to take place. Many of the modern storage scopes include logic analyser functions, either as standard or as an add on.

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Here is an example trace of the SPI signals from the ESP32 to the ADC:



The logic analyser does not display the rise time of the signals, only when they change from 0 to 1 or vice versa. The logic analysers have a sample rate, the higher the rate the better, but clearly you need to be able to sample at more than twice the frequency of the pulses you are trying to measure.

The device Santa provided is very low cost, around £5 from China on the slow boat, or twice that from UK vendor

<https://hobbycomponents.com/testing/243-hobby-components-usb-8ch-24mhz-8-channel-logic-analyser>. This can sample 8 signals at up to 24MHz, providing the PC and USB connection is fast enough.

The unit plugs into a USB2 port on your PC, and then you use open source software called Sigrok PulseView to see what is going on with your signals. This software is also able to interface to a wide variety of devices including oscilloscopes and multimeters.

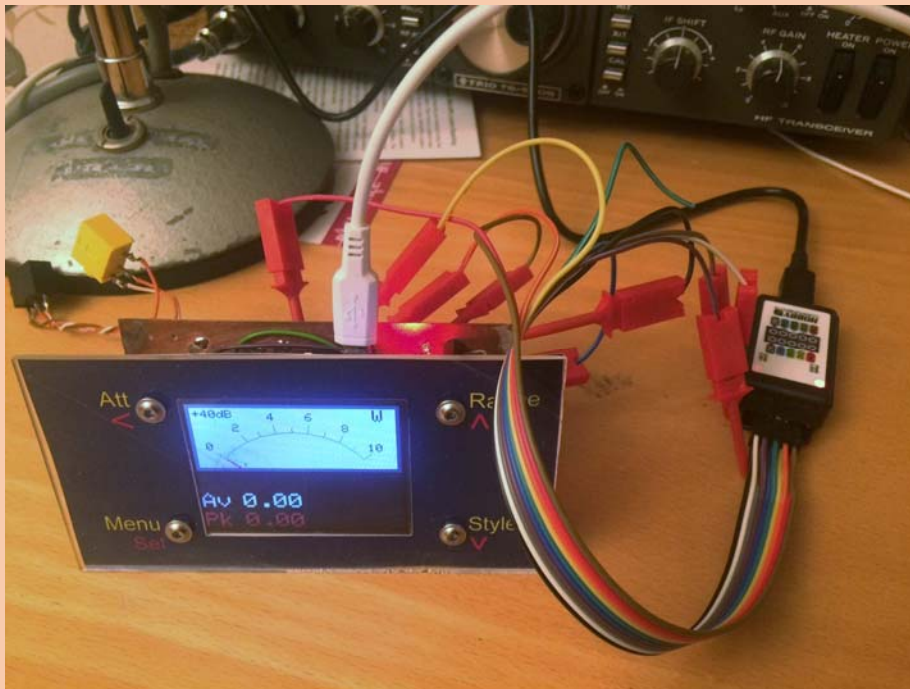
PulseView allows you to set the sample rate of the analyser and how many samples you will collect. There are unfortunately no triggers, so you have to sample long enough and at the right time to catch what you need. It is also not possible to set the transition voltage levels from 0 to 1 and vice versa. It will handle 5V TTL and also 3V3 signals. Sampling is probably too slow to catch any ringing problems that may occur on the bus – you will need a scope to see that.

The software also includes some useful decoders including SPI and I2C. Pulseview allows you to name the various channels to make visualisation easier. The Timing decoder displays the time of the pulses in each state (0 or 1).

David MOWID's Projects

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The analyser proved extremely useful in identifying the problem I was having. The logged traces showed the issue was nothing to do with the SPI, but was due to varying pulse lengths the ESP32 was providing to the ADC to initiate a conversion. If the pulse is longer than 500nS, the ADC goes into power down mode after the conversion, and then the next few readings are rubbish until the internal reference gets up to the correct value again. Most of the time the pulses were easily short enough, but every so often some other process extended the pulse, possibly the other SPI bus that handles the display accessing the port registers. This was solved by using the Remote hardware peripheral built in to the ESP32, (intended for remote control applications) so now the pulse length is independent of any software process and is very consistent.



In summary the analyser has proved to be a very useful tool for the extremely low price, but with limitations, especially the sample rate of 24MHz. This is not however an issue for most Arduino type projects which run with a 16Mhz processor clock. The SPI bus I was trying to debug normally operates at 80MHz and had to be slowed down considerably for debugging.

DMR Deliberations



(not that recent☺)

Accessing DMR VFO mode

By Richard, G3ZIY

A feature that is available in many Chinese DMR handheld radios such as the Retevis RT3S is VFO mode. As these radios are really designed for the business market, their software is not overly amateur friendly, and this feature is hard to find.

It's very frustrating if you haven't programmed a particular frequency in the radio, and find you need it when out and about - away from your computer and programming software. But there is a way to enable VFO mode from the keypad.

Go into UTILITIES

Then RADIO SETTINGS

Then MODE

Then MR MODE

Then back out to the normal working display. Your channel names will have been replaced by frequencies on each line. Now select one of the lines with the arrow keys. Look at the channel number on the extreme right of that line. Press and hold the red button. The number will change to 'V' after three seconds or so. Now using the keyboard type in the frequency you want - all the digits are required, 3 megahertz and 5 kilohertz digits. The decimal point is inserted automatically after the MHz entry. In VFO mode, the UTILITIES menu items will change, and you can then program the channel for CTCSS tones etc.

In the CPS software VFO Mode section, if you set VFA A and VFO B to 12.5kHz steps this is what the rotary channel control will change the frequency by. But it is possible to program any weird frequency from the keypad in the format MMM.KKKKK as long as it is within the radio's frequency ranges. If you have programmed one of the side buttons to SCAN, the radio will scan through the band it's on.

To revert to the original display, long press the red button to show channel numbers, and then change the mode back to CH mode.

It's a shame there doesn't seem to be a side button to easily swap between the CH and MR modes.

More DMR Deliberations

DMR SMS by Antony M6KXV

A little used feature of DMR radios is the ability to send short messages (SMS). For this article I will be focusing on using SMS on the Brandmeister network though it should work through others. SMS on the Brandmeister network works in quite a nice way as it does not rely on you being in a specific talk group or on a specific time-slot. The network will remember where you were last heard and forward the messages to that location (repeater, time slot and talk group). This means that all someone needs to send you a message is your DMR ID. The one feature that the network does lack is “store and forward”, this is the feature found in the mobile telephone network that allows messages to be stored centrally when you are out of network range or your radio is off. This means that your radio must be on and in vicinity of a repeater or hot-spot to receive messages.

Brandmeister Setup

In order to use SMS on the Brandmeister network you must first sign up for a “self care” account. This is so that you can set the type of radio you are using. Unfortunately this is necessary as there is no standard for SMS over DMR and each manufacturer has developed their own system. Brandmeister is smart enough to translate between the known systems so long as the user has stated which type of radio they are using.

Signing up

To get an account head over to <https://brandmeister.network/?page=login> and select **Not a member? Register!**

You will be asked for the usual details: Name, call, etc plus a valid DMR ID. Just complete and submit the form.

After you submit the form you will be sent an email asking you to confirm your email address. After confirming your email it can take up to 48 hours for your account to be activated though mine was activated the same day and on a Sunday no less.

Setting your radio type

Go to <https://brandmeister.network/?page=selfcare> and log in.

The top setting should be **Brand**, select your radio brand from the drop-down. (Note: For radios like the MD-380 and GD-77 select **Chinese Radio**)

Scroll to the bottom of the page and select **Save**.

Sending an SMS (TYT MD-UV380 and variants)

Ensure you are connected to a repeater and have an active talk group selected.

Press the green menu button.

Scroll down to **Messages** and select it with the green button.

Scroll down to **Write** and select it with the green button.

You should now be able to enter your message using the keypad. There are multiple characters per key, you must keep pressing to cycle through them. You will be limited to 160 characters for your message.

Once your message is complete press the green button to confirm.

The menu will appear. Select **Send** with the green button.

You now have two choices:

Send to a contact:

Select **Contacts** with the green button.

Scroll to the recipient contact and select with the green button.

Send direct:

Select **Manual Dial** with the green menu button.

Enter the DMR ID of the recipient and press the green button.

A sending message screen will be displayed, after a short wait you should be presented with a message stating whether the message was sent successfully or not.

If successful you can press the green button to clear the message. If it failed it is likely that the repeater is in use, you are out of range or the recipient does not have their radio turned on.

Receiving an SMS (TYT MD-UV380 and variants)

When your radio receives an SMS it will play a short ringing tune and offer you the option to read now. Selecting the green button will immediately display the received message. If you instead press the red button to dismiss the message it can be found in the radio's inbox as follows:

Press the green menu button.

Scroll down to **Messages** and select it with the green button.

Scroll to **Inbox** and select it with the green button.

Scroll to **Inbox** again and select it with the green button.

A list of your messages will be displayed. Scroll to the one you want to read and press the green button to open it.

You can scroll up and down the message using the arrow buttons and exit the message by pressing the green button.

Additional Brandmeister Setup

For some radios this service will work better if you send a couple of config messages to the system before using any of the commands in the section below.

The following CONFIG commands should be sent to DMR ID 262995.

First send CONFIG DELAY 10; this tells the network to wait ten seconds before sending any replies to you. I recommend setting this to allow your radio enough time to move out of it's sending sequence before the reply is received. Without this being set it is possible for some radios to miss the reply entirely as they are still busy when it is transmitted.

Next send CONFIG SHORT; this tells the network that your radio prefers short messages. Sometimes the system will send long replies (the METAR command for example.) that can cause some radios to freeze up. This setting ensures that the messages are kept short to avoid this happening.

Finally send CONFIG ON to enable the previously sent settings.

Brandmeister DMR Commands

The Brandmeister network makes use of SMS by providing an information gateway that can be accessed by sending SMS commands to a certain DMD ID. The below table details the available commands. Once a command message is sent you should receive a reply almost instantly with the results.

Commands should be sent to DMR ID 262993, 262994 for **RPT** commands and 262995 for **CONFIG** commands.

If you are familiar with the CPS software for your radio I would recommend checking if you are able to save some of the above commands as **Quick Texts** so that you do not have to type them out every time and to save the DMR IDs of the system to contacts so that they can be selected. This is what I have done with my own radio it is much more convenient.

For further information see

(German): <http://wiki.bm262.de/doku.php?id=servicenummer>

See next page for a summary

Command	Example	Description
WX	WX WX Crawley, UK	Weather report at the repeater site or at specified location.
INFO	INFO M6KXV	Information about call sign e.g: Last heard, name, etc.
METAR	METAR EGKK	METAR weather reports for the specified airport code. (EGKK being Gatwick)
RSSI	RSSI	Use parrot as a private call on the repeater, send an RSSi SMS to get your signal strength back as an S number readout.
RPT	RPT	Returns available talk groups on the repeater.
GPS	GPS GPS M6KXV	Sends your GPS location to the server and returns your location's street address if possible. It is also possible to specify another person's call to retrieve their last known location.
APRS	APRS 51.095 -0.189	Allows you to specify a lat/lon to be passed into the APRS system for your call.
HELP	HELP WX HELP GPS HELP	Displays a list of available commands. You can also specify any of the above commands followed by help to get more information about the command.
ECHO	ECHO	Just replies to you with a message. Using the help command is probably a better test in the first instance.
CONFIG	CONFIG DELAY 10 CONFIG ON	Sends configuration commands to the Brandmeister network. See section above on Additional Bandmeister Setup.

If you are familiar with the CPS software for your radio I would recommend checking if you are able to save some of the above commands as **Quick Texts** so that you do not have to type them out every time and to save the DMR IDs of the system to contacts so that they can be selected. This is what I have done with my own radio it is much more convenient.

For further information see

(German): <http://wiki.bm262.de/doku.php?id=servicenummer>

Closing Remarks

It is my hope with this article to encourage more people to try out this interesting feature of the DMR network and to experiment and find new uses for it.

Feel free to send me messages at my DMR ID 2346276.

For person to person messages I would recommend signing your messages with your call as I can't predict that all radios will resolve a DMR ID back to a call sign. I have found that the SMS system is not 100% reliable and that if you have issues you may need to just keep trying.

If anyone would like a demonstration you can usually find me at the club most Sundays and I would be happy to show how this all works.

– Antony - M6KXV [DMR ID 2346276]

Photo Album

Here are some photos of VHF NFD probably 20 years ago of the problems of erecting the 23 cms dish that Derek built before health and safety had been invented. Plus a shot of my late Finnish friend's shack (house) and tower that was 85 metres high (from memory). I used it to work the special event station in Korea when my son was there attending the World Scout Jamboree in around 1989.

Later in the week we were in Lapland and I had an even better contact with them using my TS430S (the very one that was in the clubhouse and a home made 1 meter long whip aerial on the roof of my minibus from a car park. But in those days conditions were so good you could hardly find an empty slot on any band.

Adrian G3VJM

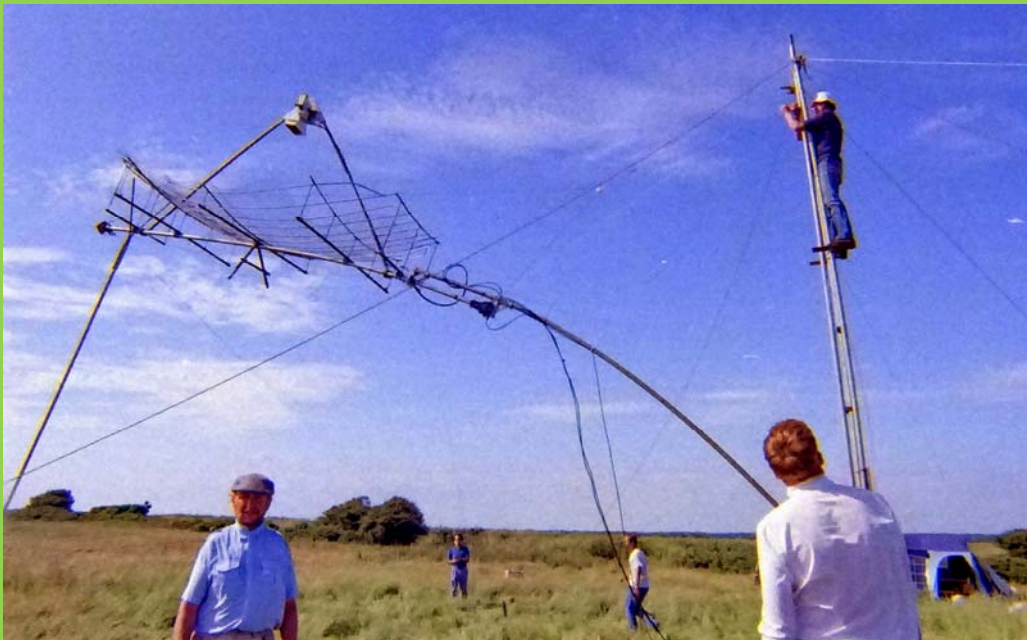


Photo Album





RadCom basics

MEMBERSHIP SERVICE UPDATE

Dear Crawley Amateur Radio Club, G6RC

As a member of the Radio Society of Great Britain we are contacting you today as we have made an update to one of the membership services that you receive. As you may have seen in the June issue of RadCom we are pleased to welcome the re-launch of the bi-monthly RadCom Basics.

RadCom Basics is a bi-monthly digital publication targeted at RSGB Members new to amateur radio or less experienced and so it explores key aspects of amateur radio in a straightforward and accessible way. RadCom Basics is sent as an email alert to subscribers when each edition is published and the alert provides a list of contents and links to the various articles. If you would like to receive these email alerts then you will need to complete the short sign up form which can be found by [clicking here](#).

The first issue of the re-launched series is due for release on Friday 31 May 2019 and contains articles on Working portable this summer. Understanding squares, locators and zones and a guide to Antennas - what is impedance and reactance?

PLEASE NOTE – Following the changes to data protection legislation and the introduction of the GDPR the previous RadCom Basics subscriber information held by the RSGB was deleted. If you have not subscribed to this service since 1 May 2019 you will need to do so again. You can [click here](#) to subscribe again. This site only collects sufficient data to identify you as an RSGB member and provide confirmation back to you.

We hope that you find this service useful and once again 'thank you for being a member'

Best Regards

Mark Allgar, M1MPA

RSGB Commercial & Membership Manager

Radio Society of Great Britain

Some disturbing news about the agenda for WRC 2023:

WRC 23 AGENDA ITEMS

Category: [News](#)

Published: Monday, 10 June 2019 19:54

Written by Don Beattie

Hits: 4275

IARU Region 1 notes that there are two proposals under discussion in Europe as possible future Agenda Items at WRC 2023, which potentially could impact important amateur radio frequencies. The following sets out the current IARU position on these proposals.

A proposal from France to consider the band 144-146 MHz as a primary allocation to the Aeronautical Mobile service, as part of a broader consideration of the spectrum allocated to that service.

The band 144-146 MHz is allocated globally to the amateur and amateur satellite services on a primary basis. This is one of the few primary allocations to the amateur service above 29.7 MHz and as such is an important and widely used part of the amateur spectrum with a vast installed base of users and operational satellite stations.

IARU views with grave concern any proposal to include this band in the proposed study. It will be representing this view energetically in Regional Telecommunications Organisations and in ITU to seek to obtain assurances that the spectrum will remain a primary allocation for the amateur services.

A proposal to study the amateur allocation in the 1240-1300 MHz ("23cm") band following reported cases of interference to the Galileo navigation system.

IARU is aware of a handful of cases where interference to the Galileo E6 signal has been reported. In all cases these have been resolved by local action with the full cooperation of the amateur stations concerned.

IARU does not want the amateur service to affect the operation of the Galileo system in any way. Joint studies have been carried out to assess the true vulnerability of the system and, based on these, IARU regards the proposal to initiate an Agenda item for WRC-23 as premature.

The IARU position is that proper technical assessment of the issues involved should be made in the relevant CEPT study group. Proper account needs to be taken of the operational characteristics of the amateur service in order to develop sensible and proportionate measures that will facilitate the continued utility of the band for amateur experimentation whilst respecting the primary status of the GNSS service.

IARU is ready to cooperate fully in any studies and shares the objective of reaching a secure and permanent solution to the issues of sharing in this band.

IARU asks its Member Societies to draw this information to the attention of their members, and to refrain at this time from making speculative public comments about the situation until further progress has been made in regulatory discussions. IARU is also ready to discuss this issue with other societies not in IARU membership.



Dates for your diary:

July Wed 31st Intro to 6m by Chris Deacon G4IFX of UKSMG

August Wed 28th Dayton & Friedrichshafen Report by Stewart G3YSX

September Sun 26th Microwave Round Table

September Wed 25th Plastics in Amateur Radio TBC

October Wed 25th TBA

November Thu 7th HARC/CARC Challenge at HARC

December Fri 6th Annual Fish & Chip Supper

Interesting Reads or Watches

What went wrong with Maplins (article)

<https://www.retailgazette.co.uk/blog/2018/03/maplin-what-went-wrong/>

The ICOM 7610 In Depth(video)

<https://www.youtube.com/watch?v=IW-l-5Hlro&feature=youtu.be>

TX Factor (video series)

<http://www.txfilms.co.uk/txfactor/>

This week's GB2RS news on the web (audio)

<http://www.txfilms.co.uk/txfactor/podcasts.html>

Propagation and Solar Data (website)

<http://www.hamqsl.com/solar.html>

National Grid Dashboard – see how the country's energy is being created and used in real time

<http://www.gridwatch.templar.co.uk/>

Digital archives of Radio related magazines –

[https://www.americanradiohistory.com/Radio News Master Page Guide.htm](https://www.americanradiohistory.com/Radio_News_Master_Page_Guide.htm)

Info Page



Local Repeaters

GB3MH: 145.625/88.5(FM) GB7MH: 439.6375(D-Star/DMR)

GB3NS: 439.675/82.5(FM) GB7NS: 439.1625(DMR) GB7ID: 430.975
(438.575)(FM/Fusion)

GB3HO: 430.8875/88.5 (438.4875)(FM) GB3HY: 430.900/88.5 (438.500)(FM)

Local DX Cluster GB7DXS : Telnet 81.149.0.149 Port 7300

Committee Members:

Keith Evans G3VKW - Chairman

John Pitty G4PEO – Vice Chairman, QSL Manager

Phil Moore M0TZZ - Hon. Secretary, Newsletter Editor, Exam Secretary

Howard Palmer G4PFW – Hon. Treasurer

John Longhurst G3VLH

Richard Hadfield G4ANN

Alex Sheppard M1YAP

Lead Training Instructor – Vacancy