Ridgeway Repeater Group. Newsletter for Fourth Quarter 2019

Good News for GB3TD

We have been granted the NoV for the frequency change or Rob has as he is the repeater NoV holder.

We have been given RU67 but with a reverse split so our channel designation will be RRU67

The new frequencies for the repeater will be:-

Output: 438.4375 Mhz

Input: 430.8375 Mhz

The split will be minus 7.6 Mhz

We will still be using 118.8 Hz tone to access the repeater.

The 18th October 2019 is the date that GB3TD will be changed to the new reverse split and different frequency. The repeater would not be available until after the change procedure is complete, the work will be taking place from 09:00 AM on the above date. Please be patient while this work is being performed as filters will need to be changed at the same time.

A short history for the reason to change frequency of GB3TD by Rob G4XUT

The Swindon UHF repeater GB3TD has been operational on the same frequency 433.075 Mhz and from the same site since 1994 and is managed by the Ridgeway Repeater Group.

In recent years the repeater has been suffering from interference in the form of clicking and pulsing noises and also from wideband transmissions which can severely desence incoming signals.

The group has spent many hours trying to determine the source of some of these without success.

OFCOM were consulted and tried their best to identify the problem without actually finding it due to restrictions gaining access to certain areas of private property.

The main interference to our secondary use band is from 433Mhz to 435Mhz which emanates from low power devices but also the MOD which is the primary user of the band.

When GB7TC our DMR repeater was commissioned and co sited with GB3TD and using the same antenna, the filtering system was complicated and caused extra losses in the system. Never the less has worked well.

A question was asked to the RSGB repeater committee asking if a 7.6Mhz wide band split would be possible for GB3TD.

The RRG were asked if the group would like to try a reverse shift to the normal Tx low Rx high configuration.

GB3TD output frequency will be 438.4375 and the TD receive will be 430.8375.

This was agreed and an NOV issue to Rob, G4XUT.

The benefit is that the filtering for GB3TD and GB7TC will be easier with less through losses with both Tx and Rx being at the same ends of the band.

One repeater using this frequency is GB3EU near Leicester which uses the same frequency but uses **horizontal polarisation** and a different CTCSS tone. We understand that this is experimental and if it were to change to vertical, a new frequency would be required.

The only other repeater using those frequencies is GB7EU multimode near Edinburgh which uses a **reverse shift** to us and different CTCSS tone.

The disadvantage to you the users is that you will need to reprogram your numerous radios however we are sure you will find TD better than before and without the annoying QRM – hopefully!

GB3TD Echolink via Raspberry Pi - Andy M1EFY

The conventional method for running GB3TD Echolink has been to run the standard Echolink Windows application on a PC connected to a radio and the internet. This is a task that has been shared by Rob G4XUT and Andy G0UWS.

For the past few months we have been experimenting with running the GB3TD Echolink connection via a Raspberry Pi Linux based computer. The software that enables this is known as SVXLINK the Pi is interfaced to a Yaesu VX-1R via a custom PCB which provides watchdog logic for the TX control.

Using the Echolink via SVXLINK

As SVXLINK is a modular piece of software different modes of operation can be enabled and disabled – by default Echolink is disabled – and if you are a radio user and need to make a connection you need to enable it with the DTMF 2 command. The response from the system will be the voice announcement "Echolink activated". The Echolink module will automatically timeout after 20 minutes of inactivity.

To connect to another station, just send the node number ended with a hash (#). To disconnect the last connected station, send just the number sign. To exit the module, send a hash when not connected.

Subcommands

There are a couple of subcommands that can be used when Echolink has been activated.

0 - Play the help message

1 - List all connected stations

2 - Play local EchoLink node id

31 - Connect to a random link or repeater

32 - Connect to a random conference

4 - Reconnect to the last disconnected station

50 - Deactivate listen only mode

51 - Activate listen only mode

6* - Use the connect by callsign feature

Command 2 may also be activated even if the Echolink module is not active. Just send 22#, and the node id will be read back.

Connect by callsign

The "connect by callsign" feature makes it possible to connect to a station even if the node number is unknown. Callsigns are mapped to digits by using the following method: ABC=2, DEF=3, GHI=4, JKL=5, MNO=6, PQRS=7, TUV=8, WXYZ=9. That is the same mapping as on many phones. Letters are mapped to its corresponding digit and digits are of course mapped to their corresponding number. All other characters are mapped to digit 1.

GB3WH: No issues so nothing to report all working well.

GB7TC: No issues so nothing to report all working well.

Report on Mills On The Air submitted by Neil M6CUE

Mills On The Air 2019 from Wilton Windmill.

The Windmill Amateur Radio DX Group had a very good weekend of the 13th/14th of May 2019 operating GB1WW from the Windmill at Wilton near Marlborough in Wiltshire. The weather was very good, cool mornings but warm afternoons. In all, 266 contacts were made, 252 of which were on 40m HF, & 14 on 2m FM VHF. Over the two days we had several visitors from the world of amateur radio, Rob G4XUT, Bob G0VTA, Brian M0SWL, Richard G4MUF + his XYL Judy, Bernie M0NKS + his XYL Jill, M3EVA also came to see us, unfortunately his name escapes me at present. All visitors were welcomed with tea/coffee + biscuits/cake, the main operators had the luxury of burgers/bacon rolls. Both Rob & Bob had stints on the mic in the HF operating shack, &, both mentioned to me afterwards that they had enjoyed the experience immensely, & would gladly do it again. We also had a visit from Claire Costello, who is a member of the committee in charge of the dedication event at RAF Ramsbury on June 9th, she enjoyed coffee & biscuits with usSecretary as well as a long chat about that event. Claire also said that our presence at the event would be much appreciated, & before departing wished us well with Mills On The Air, &, also our planned event for the 75th anniversary of D Day from RAF Ramsbury along with her own event. The Group have made sufficient contacts with mills in the UK & Holland to earn certificates from both countries. I also have to mention that without the kind permission of the landowners Peter & David Lemon, Mills On The Air 2019 from Wilton Windmill would not have taken place, likewise the BiWOTA event from Crofton Lock on the Kennet & Avon canal could not take place without the permission of Peter & David.

1st Picture: Wilton Windmill.

2nd Picture: Secretary, Treasurer & Chairman of Windmill A.R. D.X. Group.

3rd Picture: The secretary on 2Mtr FM.

4th Picture: M1CJE & G1OQV Operating the Station.

5th Picture: GB1WW Flag.

Programming A Radio by your scribe Ken G1NCG.

This past month I've been busy assisting G4MUF with programming his Baofeng UV5R dual band handheld transceiver. Our first task was to work on a list of repeaters that would be useful for Richard to use on his walks and travels around this area and beyond. This was deliberated over for some time, which I think we started over a year ago, just to ensure everything that was entered into the 99 memories of this radio could be reached from places he would be visiting. First Richard and I put together a list of candidates that could be used and after much fettling we agreed on the first draft of the list. Next was what format the list would in, location order or some other order, we finalized on alphabetical order which seemed to be the most logical.

Next was supposed to be simple, just insert this file into a csv format file, but as with most computer programs this was not as simple as first thought. It turned out to be a bit of a challenge as every time it was put into a csv format, which was the easy part, but attempting to insert into the Chirp file it threw up many errors. At first I thought that perhaps the chirp file was corrupted or maybe I hadn't extracted the file correctly, so went back and collected a fresh file after reading it from the radio. This was then saved as a csv format file and I then attempted to insert the csv file again but it errored again so had think of another way to program the radio. Was it now time to start a manual process of entering each repeaters information into the Chirp program direct. This proved to be the most successful method to put the data into Chirp and there after into the radio.

This is a laborious task but is was the only way that seemed to work with any degree of success, I have to say that it was not as tedious as expected and quite enjoyed the entering of data into the chirp program. Each line had to be entered separately via the details box but this was easy to manipulate after getting used to the layout and I got more proficient at it as I went along. After entering all the data this was then checked and appeared to okay, then the data was pushed into the radio and was given to Richard to trial it in real life or on the air. After a few days it was discovered the he had an issue with low audio after several contacts reported that they were struggling to hear him. I checked the file and saw a glaring mistake which I had over looked, the deviation had been left in narrow, so I changed all of the entries to a wide deviation which cured his low audio. We also found that not all the information for one of the gateways had not been entered so that was amended and cured that little issue. Now Richard informed me that his radio was supposed to have 128 memories so would I add some more frequencies into this file for the radio which has now been done. I would recommend the program Chirp to anyone else that wishes to program a radio that they have in their possession as once you've mastered the basics of the GUI you can program any radio that it is capable of programming, and I think they are adding more radios all the time. This is just an abbreviated version of events as I remember them.

On the next page is a couple of shots from Liden Lake one from earlier in the year of the Swan brood of hatchlings and second is one from this week to show how they have grown.

This shot is from earlier in the year and I was very thankful to be allowed up close to take this picture of the Swans brood of signets