



Ridgeway Repeater Group. Newsletter Second Quarter 2021

Messages/Notices

GB3TD update April 2021

GB3TD is still basically operating the same as in the previous newsletter except for a change to the timing of the CTCSS transmit period.

For those who remember the repeater operation prior to September 2019, we have now reverted back to those settings in the logic control.

The change has been to the timing of the CTCSS (sub audible 118.8hz tone) output from TD.

This now only operates when the repeater is in "Talk through" and ends 1 second after signal drop by a valid signal into the repeater.

This has been done in an attempt to speed up the Echolink changeover time and also to remove the periodic CW beacon ID being transmitted to Echolink.

For the users with CTCSS decode enabled on their radios, this means that you will not hear the "K" courtesy tone nor the CW periodic Beacon ID.

If you would still like to hear this on your radios, simply disable the CTCSS Decode function. The choice is yours now.

I am aware that some radios have different decode systems which are not fully CTCSS and you may indeed hear the "K" with the decode on. Also I have been made aware by a local station that his radio only has CTCSS on or off and not a separately selectable receive/transmit tone function.

On other matters, we have been in the process of repairing our main 24/12Volt PSU and installing some new higher capacity back up batteries, this should be completed soon.

The installation of the replacement TD/TC antenna is still to be organised. This has been outstanding for 3 years, but I am hopeful we can achieve it this year. This main issue has been to get this done without too much of a financial burden for the RRG, however we may have to use contractors with all the required insurance, climbing gear and climbing certificate's etc. to get this finally done.

73 Rob G4XUT (RRG Secretary).

GB3WH – No new Data Supplied

GB7TC – No new Data Supplied

MB7USW – No new Data Supplied

An Article Authored by Richard G4MUF

Thoughts on the Metric System

Part 1

It is now around 230 years since the metric system of weights and measures was invented by the Academie Francais, in Paris, in the 1790s. The length of one Metre would be equal to a 10-millionth of the equator-N pole distance along the Paris meridian. The system has become uncontroversial in the UK by the 2000s but, around 1970 when Parliament ordered shops to sell in Kg and metres etc instead of Lb, inches or yards, it was highly controversial.

The revolutionary fervour which gripped France in the 1790s contributed to the idea of a complete new start on measurement, though the scientific fervour of those times had begun a decade or two earlier. Along with sweeping away any other 'Ancient Regime' (i.e. royalty) trappings, the Revolution seemed an opportunity for total new start on many things. Using the Earth itself to define length, and using the life-essential liquid, water, to define weight and volume, were the defining contributions of the Revolution to world history. There were many different measurement units in use in the world, many not accurately defined, and therefore open to fraud when buying by weight length, volume or area. A Paris Inch was well enough defined even in the 1700s, being 27.069 cm, compared to 25.4000 cm for an Imperial Inch used nowadays in UK.

The system's subdivisions would be decimal, i.e. tens, hundreds, thousands, just as in arithmetic. The specific gravity of water was used to link length to weight (or mass, more scientifically) and volume, so that a cubic centimetre of water weighs one gramme and has a volume of one millilitre. The well-known standard prefixes were created, or rather the first 6 were, ie milli, centi, deci, deka, hecto, kilo, in increasing size order. Each prefix is 10 times bigger or smaller than the next one. As science and engineering progressed many more multiples were created for ever larger or smaller units. The prefixes are from Greek or Latin origins.

Science tended in earlier times to use 2 versions of metrication, i.e. the CGS and MKS units. CGS stands for centimetre-gramme-second, and MKS for metre-kilogramme-second. More recently it was decided to cut down on too many prefixes where possible by using only thousand-fold multiples, so that you would have just milli- and kilo- to cover the above range. Smaller units on that basis, micro, nano, pico are now fairly well known, such as in medication doses and electronics. Mega, Giga, Tera are also well known now, e.g. Megabits-per-second broadband speed, Gigabyte or Terabyte hard drive capacities, etc. These decisions were formalised as "Systeme International" and usually called S.I. units. The thousand-fold rule is not adhered to in some cases. A Hectare (a square of side 1 X 1 hectometre or 100 metres) for the area of fields is an example. There are 100 Ha in a square kilometre.

Part 2 in a later RRG Newsletter

Note from Your Scribe:

I remember days before decimal coinage was brought in and I wonder how many of you do as well. (Change over date was 1971.) I remember the large copper penny's, halfpenny's pronounced 'apenny but that is just a memory now. I remember the uproar of how many penny's we would lose because it did feel like we were losing penny's as we were used to having 240 penny's to the pound and the new fangled decimal coins only had 100 penny's. When we first converted to decimal coinage we still had a Halfpenny but that was soon lost in the mists of time. Our coinage was a lot more extensive than we have now, first we had a halfcrown which was worth an eighth of the pound. We had a two shilling piece or a florin as it was called, a one shilling coin, a sixpence coin which was half of a shilling and there was twenty shillings to the pound. We always referred to the halfcrowns, Florins, Shillings and sixpence coins as silver due to their appearance of a silver colour. The copper coins were always referred to as copper and we had a threepenny piece, penny's and halfpenny's and I remember farthings which were a quarter of a penny. The way I remember these coins was my Mother gave me a handful of these coins and I was told to go to the grocers to get a loaf of bread and being very embarrassed having to count out all the coins I had been given.

Coinage breakdown:-

Farthing – Quarter of a Penny.

Halfpenny – Half of a Penny

Threepence – Pronounced Threepence worth Three Penny's

Sixpence – Six Penny's

Shilling – Twelve Penny's

Florin – Twenty four Penny's

Halfcrown – Thirty Penny's

Paper Money

Ten Shilling note – Half of a Pound

A One Pound Note

A Five Pound Note

Loop Antenna Update

Just a quick update on my on going loop saga, I've been given by a very good friend an air spaced variable capacitor, which together with my earlier built smaller loop section (two meter circumference) I have been able to construct a second loop antenna which is now in-operation receiving FT8 signals on 20Mtrs just as good as the previous loop antenna. This allows me to concentrate on developing the remote powered tuning system,(fancy words for playing about with an electric motor with a reduction gear ratio of 0.6 of a revolution per minute). I'm slowly working on the brackets to hold this motor in place at the correct height for the capacitors main rotating shaft. It's little more perplexing than I first thought but some progress is being made as my first thoughts on the matter didn't seem practical after my initial attempt at fashioning the said bracket and my thoughts are going in a different direction. I will resolve this issue but not very soon. No sooner that said I have found a resolution for my bracket issues and after a little bit of fettling and some lateral thinking I'm positive it will work. Still more fettling to be performed as I still need to assemble all the components onto the base board. (an old number plate supplied by a very good friend.) This should insulate the components from shorting out (electrically) and as I've used this method before I'm sure it will work very well. I'm well on the way to producing my remote tuned Loop antenna, so the next issue when I've assembled the components onto their base is how to switch the power (DC) to the motor and also how to reverse the polarity as the motor will work forwards and backwards just by swapping the supply wires. I thought neat but after thinking on this issue for a while I'm not so sure it's going to be as easy as I first thought. Well thats it for this update which is short and not so sweet, please stay reading in the next update.

For Sale

Icom SM-30 Desk Microphone

Mint condition in box and never used from new

Current new price £114 – your bargain price £70

Contact Rob G4XUT - g4xut@rrg.org.uk

Update for The Lake

Not a lot of progress can be seen on the lake but have had a look at the one Swann nesting near the bank below our resting place and I'm reliably informed she is sitting on seven eggs so within the next month we should see some cygnets swimming around. I also just been told that there some goslings swimming around the lake but have not seen them yet will try to get pictures for a later newsletter. My thoughts are it still seems strange that we have still got some of last years cygnets that have not yet fully matured and the next batch are on their way.

The Last Words

It seems we can get together after a long lock down and myself and a five others are going to put on a special event station for 'Mills on The Air at Wilton Windmill as it is a 200th birthday for the Mill this year, yes two hundred years old an still producing flour. Of course we will observe the regulations regarding Covid-19 so not asking anyone to come and break the rules, just listen out for us on the air as the call sign will be GB2OOW not a true 200 but will look good on a QSL card. The bands to used will be 40 and 20 mtrs conditions permitting and 80 mtrs if all else goes flat. Mills on the air week-end is the second week-end in May 8th & 9th .



****Stop Press****

Breaking News

C4FM Fusion now in Swindon

Dave, G4XIB has been very busy over the past few months applying for NOV's for a Simplex C4FM Fusion Gateway and a Duplex C4FM Fusion repeater. Located in Swindon with its coverage area in the town and surrounding areas, MB6TD and GB7NW are now on the air with improvements being made to the antenna arrangement during the summer to improve coverage.

MB6TD is a simplex Fusion gateway operating on a VHF frequency of 144.8625Mhz. Despite its low output power determined by the NOV, it gives some good coverage in the Swindon area.

The gateway came on air in February 2021 and Dave is still working on the final setup with regard the antenna location and functionality of the gateway.

So, anyone who has access to a Yaesu Fusion radio and would like to try it out, Dave would really appreciate your feedback on how it worked for you.

GB7NW is a full duplex Fusion repeater operating on UHF with a transmit frequency of 439.725 MHz and a receive frequency of 430.725MHz.

The repeater came on the air on March 2021.

The equipment is licensed, owned and maintained by Dave and would be pleased to help with questions about Yaesu Fusion operation.

So, anyone who has access to a Yaesu Fusion radio and would like to try them out, Dave would really appreciate your feedback on how it worked for you.

Dave, G4XIB is contactable on his email address listed on QRZ.com

For information about Yaesu Wires-X, a useful link is:-

<https://www.yaesu.com/jp/en/wires-x/index.php>

For those who recognise the callsign GB7NW from many years ago, yes, this originally was used for the RRG's packet repeater system. More details on this can be found on the RRG 's history on www.rrg.org.uk

73 Rob G4XUT