



North Bristol Amateur Radio Club

S.H.E.7, Braemar Crescent, Northville, Bristol BS7 0TD
G4GCT, M0NBC, G6PNB

September 2020

Covid-19 Edition

G7BYN on his Soap Box

I start this month with a rant. Some companies don't deserve to be in business.

Anybody had trouble with E bay?, in the past I have (When not a member), two of my daughters have and so has my son.

Moving to recent times in July I bought a Leisure battery via Ebay (I signed in as a guest) good price and the battery type I wanted. That is a 70Ah with a handle that folded over the terminal posts for safety so that the battery couldn't be shorted during transit. Yes the photograph showed this was so. The day the battery was delivered it was a car battery type no cover and acid had leaked into the plastic bag it was sealed in, not just a little bit about half a mug full. It went all over my drive and me burning holes in my jeans. Obviously the carrier, DX Ltd. had tipped or stored it upside down.

Having my complaint upheld, they wouldn't get a courier to collect it I had to take it to the Post Office. I thought so much for not having to go out during Covid Times. I have now just driven to Halfords and picked up a battery, the one I wanted to start with. The morale of the story, buy local if you can and make Ebay the very very last on your list.

Maintenance on your antenna systems

With Autumn just around the corner it is time to do a bit of maintenance on the joints and coax connections. It is a lot easier to do while it is dry and warm outside. I didn't do any last year as the XYL prohibited me from climbing ladders due to me being unsteady on the legs due to the recovery of my bust hip. It is better now so these jobs are on the list along with the list of antenna projects on my "to do" list.

On the Hill again

Rocky (M6VRL) and I went back to the Hill again, this time on a Saturday. The station was the same as last month's Q5 trip No.2. Unfortunately there were no benches available, they are in short supply as many of them are vandalised so we worked out the back of my car. What a difference a Saturday makes. There were more stations available to work. (Not necessary by us). There was the inevitable CQ Contest, and a few just calling for "Asia only". That was us out then. We did however manage Russia, Netherlands and Rocky's home of Poland. I asked Rocky to work him on my call sign (at 100w), but the station had gone. We will try again won't we Rocky.

Not a lot more to mention really, just that my station is in dire need of a re-vamp. For comfort, I think that a table and chairs are a must and the antenna system requires a bit more thought.



Thoughts on Magnetic Loops and other Antennas

The thought of a portable Mag loop has been on my "To Do" list for many a year. I have used Mag loops before and, I have Two large ones in kit form in my garage. They work extremely well but I haven't a location for them at the moment. The nearest point would be the garage roof. Unfortunately the XYL is not happy with this as there is a pump up mast with a 10 element 2m beam in that prime Position anyway.

Mag loops however are to be mounted near the ground despite a video on you tube by Dave Casler KE0OG. While I admire his knowledge, he failed when comparing a loop against his vertical. He mounted the loop on the top of a bloody great big pole, then commented it was difficult to tune.

I am aiming to make a QRP model for the near future. I will let you all know how I get on with this project.

The next project is a half wave resonant end fed, (Vertical or horizontal) EFHW. The wonderful thing about these antennas is No Tuner required.

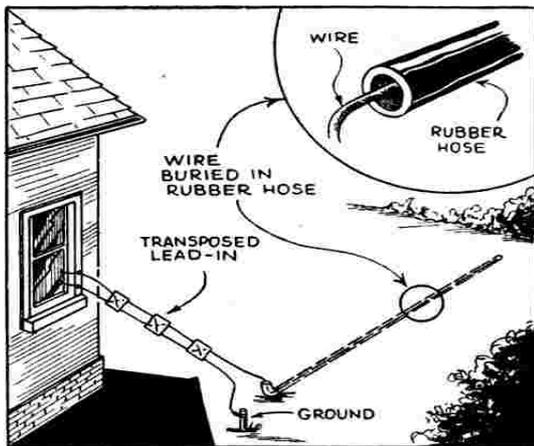
The way they work is rely quite simple. A $\frac{1}{2}$ wave resonant length of wire antenna on 80m is approximately 40m in length. I know this is not how to work out the resonant length, but for this example..... The 40m length of wire is a full wave on 40m band. It is also 2 wave lengths on 20m band and so on. Because of the each $\frac{1}{2}$ wave is High impedance (about 3-3.5k Ω) the whole wire is resonant on 80m, 40m, 20m, 15m, 10m all with no tuner. What we do need to add is an UNUN of about 49:1. That is Unbalanced (The Antenna Wire) to Unbalanced feeder(The Coax). These can be purchased ready made or make your own. Either way it is cheaper than buying a tuner.

I must say this antenna is new to me. Yes, I have used end fed antennas before, both vertical as in the roach pole used in my portable set up and horizontal at home. I have found the one used at home very noisy, lots of QRM. That is what has put me off using one at the home QTH. This one was an odd length and non resonant fed with an auto tuner. That could be the reason for the QRM. We shall see in experiments over the next few months if the resonant antenna “Notches out” the QRM.

I will start off with a 40m version as there is no way of fitting a larger one at the moment. The design of the UNUN is yet to be chosen, I may strip down an old 4:1 BALUN to give me the Ferrite core for my 49:1 UNUN.

Underground Antenna

Yes you heard right. Dave (M0HDJ) had been experimenting for many years on and off. He had been chastised in the past but kept working on this very unusual antenna. Checking on line, this was tried from WW2 to the preasant day by various agencies.



The point was to hide the antenna and make a true stealth antenna.

Ideal for NVIS working. Other types of this Antenna uses the radiating wire about 18in Above the ground or even a dizzy height of 6ft on top of a garden fence.

Checking in the Bible of antennas “Antennas for all Locations by Moxom” there is no mention of this type of antenna, so what next. Burying any antenna in the ground seems like a bad idea from radiated field pattern and efficiency perspectives. As determined in a 1974 paper published by the National Bureau of Standards, most of the energy from a buried dipole antenna that is not absorbed by the ground is radiated nearly straight up. More to follow when I twist Dave's arm.

For Sale

A Small Selection of Radio Gear from Various SK sales The contact is Dick G0XAY g0xay@aol.com or 01454-218362

- **Kit tested as shown**
- **Price often negotiable**
- **Money back if it doesn't work**
- **Collect from Acton Turville – or we may deliver.**

Transceiver: Icom IC706 MK II: c/w mic, leads, books etc . £400

Decade Resistance Box: Muirhead Addison: 0.1 – 10kR £10

Transceiver: Kenwood TM-G707E 144/430MHz
50/35W o/p + book and separation cable. £90

PSU: Drae 13.5V 24A analogue. Clean £45

Dummy Load: Vectronics DL300M 50R 300W. £40

HF ATU: Tokyo Hy-Power HF400L: Power, SWR, 1.9-28MHz,
350W dummy load, 3xPL239 sockets – also terminals for single
wire and balanced line. Book. £95

SWR Meter: SWR/Power meter + field strength. £10

Auto ATU: MFJ 993 Auto ATU: 300W, 6 – 3200R,

power + cross needle SWR, options for balanced, unbalanced

and single wire antennas. Manual included. £165

HF Beam Antenna: Cushcraft MA5B 3 element beam antenna
on 10, 12, 15,17 & 20m, handles 1.2Kw, 2.7m turning radius
12kg. New parts and spares. Ex G3IZM £150

Letters to the Editor

Well, I have asked, either everything is perfect or there is no one out there reading this.

NBARC NETS

Our nets are going from strength to strength very often 8 or 9 stations. Alas not all are members but, we welcome all stations be it members or not.

Wednesday net

GB3BS 20:00 to 21:00 Local

Friday net

GB3AC 19:00 to 19:30 Then QSY to GB3BS 19:30 to 20:00

Other Nets

Saturday

19:00 – 20:00 DMR on GB7BS Time Slot 2 Talk Group 950 (South West Cluster)

Sunday 80m Net 3.65mHz 08:30 to the start of the News ran by Dave (M0HDJ)

Sunday Net experiment

Dave (M0RKE) has been running a new net on 2M repeater GB3AA. Although there has been a few problems at first, with everyone being able to open the repeater but no audio came out. For a short time it was sorted, although the pips were missing so was the ID. Only a very quiet audio “GB3AA”, this could be why AA has not been used for a while. Tony (G4TJZ) is working hard on sorting this out. It must be realised that in these difficult times it may be some time before it is 100%

I must express my thanks to Dave for running the net and Tony (G4TJZ) for operating both GB3AA and GB3AC that we use every week.

The Sunday Net now reverts to GB3AC 20:00 to 21:00 clock time

Club Details

Club Notes

Your Chairman Paul (G8YMM) has been extremely busy over this trying period. His work load at his works QTH has doubled as a lot of his staff has been either in Furlough or at a time of self isolation. As you may or may not know Paul works for TFL (Transport for London). Sometimes he can work from home but more often than not has to work in London. As London is the centre of Finance and the governance of the country, it is imperative London is kept on the move. Any “snarl up” could be devastating for the nation as a whole.

With regard to the club opening, please be patient. The government had announced “A gathering of no more than 6 people to meet indoors or outside”. I was then asked “When is the club opening.” Common sense should have kicked in knowing that we cant open unless 5 turned up each week. If 7 turned up your organiser ie the Chairman could have a fine of £1000 so please be patient and let common sense prevail.

Stop Press

Well we held the back page for your chairman to add his notes and a report of his holiday working. I sincerely apologise for the late publication as although I have Retired, time is still at a premium and family is taking up more of my time.

Dave G7BYN

Chairman

Paul Stevenson G8YMM
Phone 07921942922
Email g8ymm@nbarc.uk

Editor

Dave Bendrey
Phone 07533933831
Email g7byn@blueyonder.co.uk

Next Q5

First week in November. This I promise will be a bumper issue.

Please send any article to me at the email above. It is very difficult trying to find things to publish. A few of you out there have sent in articles and a big thank you for your efforts, however, more are required to keep Q5 going on a monthly basis.

Dave G7BYN

Greetings from your Chairman.

Summer seems to have been and gone and alas I see no sign of returning to the Club in the immediate future. As you know we are dependent on the Government guidelines and the Law.

Since my last words, I have been busy in London managing the big issues of finance that faces Transport for London (TFL) and the ever-changing government Covid policies. You may have noticed that my activity on GB3AC has dropped off this is because I have been travelling 2 to 3 days a week by coach and thus my working hours are even longer leaving little time for radio. You may ask “Why the Coach”? well simply at less than £10 return it makes no sense to renew my Rail Season ticket at £12.5k. However, without going into detail I may have to do this end of October.

During the end of August, I did venture down to my family holiday QTH near Plymouth for some needed rest, radio operating and general maintenance to the property. I took my trusted Yaesu FT991 (shack in a box) and computer to do some data modes particularly WSPR. The Good thing about the FT991 or later 991A it has a USB connection to which I configure to act as the CAT and audio controls etc. Therefore, I don't need a separate data interface control box. A lot of rigs are now coming with USB or virtual ports as they are known.

When I arrived, we had a bad storm for 3 days thus rendering putting up the 5 band vertical. So, I resorted to constructing a 20m sloping dipole from previous parts whilst the storm raged outside. As soon as it stopped raining, I slipped outside and quickly erected the aerial into the position and tuned up. The good thing about it being sloped I could try out the “Fresnel Effect” using the sea. I will let you Google that.

When the storm subsided, I was able to install the 5 band vertical and re arrange the 20m dipole to be a bit higher off the ground. I continued to test against the 20m vertical and the sloping dipole performed at least an S pointor two up. Being isolated by the sea there was virtually no QRM so I



have a major advantage. I did manage to work New York by (Phone) and I was given a 5/5 for the Slopping dipole and a 5/4 for the Vertical dipole using 100 watts SSB. You have to note, he was using a beam and 1kw so given that conditions were marginal on 20m he was certainly helping me. The rest of the week I continued with WSPR mainly on 40m using the Vertical as the bands were often flat.

So how did it perform you may ask, well I received and worked a lot of 20m WSPR stations around the world using less than 2 watts by attenuating the WSPR signal because the FT991 lowest power setting is 5 watts. It was a good indicator that conditions were fair and that the aerial was performing during the stormy weather.



YMM's radio Paradise retreat
With magnificent views

So that's it for now, but before I finish, I would like to thank Dave G7BYN for his continued efforts into producing Q5

73

Paul

G8YMM.