

# Q5

## North Bristol Amateur Radio Club

S.H.E.7, Braemar Crescent, Northville, Bristol BS70TD  
G4GCT, M0NBC, G6PNB

August 2022 Edition



### First Event Of The Summer----Mills On The Air

Mills took place this year on the weekend of 7<sup>th</sup> & 8<sup>th</sup> May. The weather couldn't have been better, although it rained the evening before. As we left the club on the Friday the clouds began to let loose the wet stuff.

I met Dave, M0RKE at the mill at about 9:30 and we set about transporting the kit across the field. I must say that having Dave there at the start made it an easy job of setting up the gazebo.

Because of the lower key event this year, the antenna was a vertical with an auto ATU at its base and was cut for 20 and 40 metre band.

This proved to be Ok, but nothing spectacular. The best antenna would have been a di-pole of some description, my preferred being a Doublet.



Never the less, we stuck to the rules and made the antenna about 4 metres from where the public would go. If we were to use two poles then one of them would be in the area used by the public closer than the recommended 3.4m. In the future we will use higher poles just to clear head height ie. 5.4m minimum, we must also allow for the sag in the middle. This is another story and will be covered once again in a latter edition of Q5. All I was interested on this occasion was to be compliant.

The Beautiful picture to the left was taken on the Saturday by Dave, M0RKE.

## Mills on the Air Cont'd

On the Sunday with Rocky, we didn't use the gazebo. That was a bit silly as the Sunday was very hot and sunny, still, we had a dose of vitamin D.

The 40m band was opening up well on the Saturday and we worked quite a few Mills. The Netherlands, well they have windmills don't they. Contacts were a little slow but, it was enjoyable all the same.

I think with a better antenna as we had 3 years ago it would have been the best event ever. Alas, it was not to be.

The Sunday was also slow. Contacts were quick in the morning but hard work when all the other stations woke up and crowded the bands.

One thing I will say is that the standard of operating was a bit mediocre. Stations were calling CQ and before I had finished my call sign the calling station was already in QSO. How? The very least they should do is PAUSE. In other words I should have heard the winning station being called in. To me it looks like the CONTESTING mentality slipping into the gentlemanly Special eventing. "How many stations did you work?" I hear 150, 200. STOP! Special eventing is meant to be Friendly and steady. We spend a great deal of our time talking to the public not ignoring them head down calling CQ. Rant over.

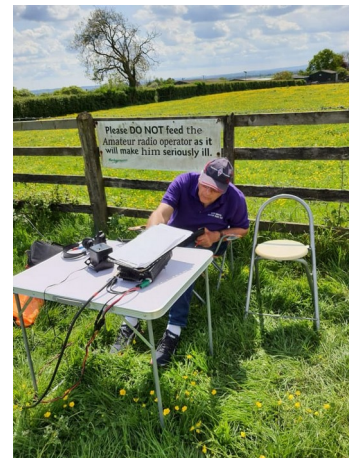
Mat, G7FBD has been playing with Photoshop again. Here are two images of me, Can you spot the difference?



Could it be the buttercups or, could it be the clouds.

Text your answer to the Secretary for a draw to be made at the meeting of August 26<sup>th</sup>. The winner of the draw will receive a small prize.

Text your answer to  
07533933831



Rocky, M6VRL happy at being out in the sun and Dave, G7BYN wondering if he can make the next contact.

Well, this was the first event of 2022. A steady start but let us all look forwards to the next event. Apologies for not taking any photographs of the Saturday event. All the photographs taken here apart from the mill were taken by Rocky. I will endeavour to make up for it on the next event.

Dave, G7BYN



## A 12v Power Box

This box came about because the power cube that I bought from Lidl back in the 1990's had it's battery go duff last year. For those of you who don't know what I am talking about, I think every amateur had one at that time. Lidl has never had them in stock since. I could order a battery, it is a slightly under size 7Ah gel cell but I thought I would make my own. I found a suitable tool box in Lidl. (Yes I am a Cheapskate)



The Original Power Cube From Lidl

This is a small tool box chosen because it has smooth sides and areas of the box are without ribs or marking. This enables meters and switches to be added easily.

The battery chosen was a 9Ah gel cell. This type of cell, although heavier than the modern Li-pol is very easy to charge.

I also made some parts by 3d printing them.

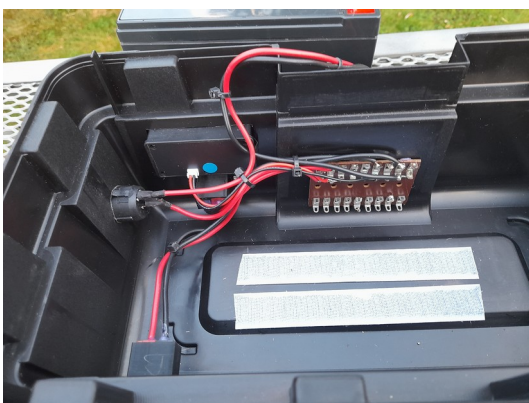
The first part to 3d print was the battery connector. This also incorporated a blade fuse holder, the type as used in cars. This reduced drilling on the outside of the box.

The plugs chosen were Anderson Power Poles. I had these fitted years ago to my old 2m rig for the car, the Yaesu ft1500 as the ones fitted were next to useless and dropped about 5v making them run hot. A chassis holder for these plugs were also printed. A little tight but a bit of fretting with a jewellers file soon sorted this out.

Here in the picture on the right you can see the battery and the printed connector. This was printed in two parts screwed together with the blade tags soldered and sandwiched between. The blade fuse is in the middle.



You can see how the tray has been cut out for the battery to fit. This holds the battery in place. It was fitted in the centre so the box balanced and didn't pull to one side. Velcro strips also helped hold everything firmly in place.



A tag strip was used to terminate the meter, two outputs, the isolation switch and the battery.

If I need more outputs I can solder to the tag strip and just print out some more sockets. USB charge sockets or car power sockets can be purchased from Amazon if that is what you want.

## 12v Power Box Cont'd

With a box like this the world is your oyster. Yes, it is a bit on the large size relative to the power cube and It has no other voltage outputs as the power cube did. On the other hand I think that I only ever used 6v once or twice. I used the power cube mainly for powering my auto tuner when out portable. I will now use it for my Yaesu ft817 or micro Bitex QRP.



To finish it off, I used a meter that was bought from the last Frome Rally. It is set to display for about 30 seconds on switch on or, the press of the button to wake it up to read it.

I often buy modules when I see them not knowing what I am going to use them for.

This fold out 2w solar panel keeps the battery topped off on long events. Even though by old 7Ah battery lasted, just belt and braces I suppose. During the steaming hot days early in June, the panel read 20v. Way too much but on a normal day was about 14v. This was perfect but to add security I will make a small charge controller. A Zener diode springs to mind.



Here it is all finished. Well, there may be a few more mods to do. As I said before, more sockets could be added. Even use it to charge your phone.

I hope this is food for thought. My large one on wheels is in the making for my 100w HF setup. It uses a deep cycle wet lead acid hobby battery that system has been used by me for years just not made into a permanent setup.

## Help Wanted

There is the possibility of Lighthouses on the air and Railways On The Air being shelved this year if Mat, G7FBD cannot get any help. As you may know Mat is finding Life a bit taxing at the moment with his MS knocking him for a six. Please contact him on [g7fbd@gb3bs.com](mailto:g7fbd@gb3bs.com)

Also a problem with Railway on the Air is that Avon Valley Railway has had to cancel it's 40's event as the Ukraine war bites, it was thought a bit insensitive to hold this type of event. AVR are not alone. There is at least 5 other preserved railways up and down the country also cancelling 40's events. AVR however has allowed provisionally the use of the lawn for erecting our gazebo.

Again, If you could help in any way please email Mat on [g7fbd@gb3bs.com](mailto:g7fbd@gb3bs.com)

## Never Ending Story On Baluns & Un-uns

I thought we would continue with the fascinating subject of transformer connected antennas. I have now purchased some more type 43 cores. Mainly of the smaller diameter for QRP use and also some of the normal 240mm size for 100w. I am going to wind these in various ratios, maybe I will try a variable tapped one as Tony G4CJZ suggested in his epic talk on Bal-Uns back in March 2022. Yes Tony, I have been using your printout as a reference. I can remember that he had generously handed out some cores for members to wind for themselves. I wonder how many of you did.

In The next Q5 you can see how I got on with some other versions and if you made some, send in your photographs with a brief description of how it worked for you.

In The Next Q5 There will also be information on the SOE films that I have shown on a couple of film nights.

I have visited Beaulieu motor museum that also was a training centre for SOE

The pistol on display there is an SOE issue pressed steel simple hand gun.



Here is a covert receiver. Note the antenna coil on the lid.

If you have a chance to go to Beaulieu, it is well worth a visit.





## Repeater News

At the time of writing this the GB3AC Repeater has developed a problem. For a few weeks now, the repeater although working at the club would not transmit or receive any distance at all. Tony, G4CJZ had started the investigative process to find out the problem.

## New Members

We wish to convey a warm welcome to two new members.

Dave, M0TAU and Alan, SWL (that is a short wave listener.)

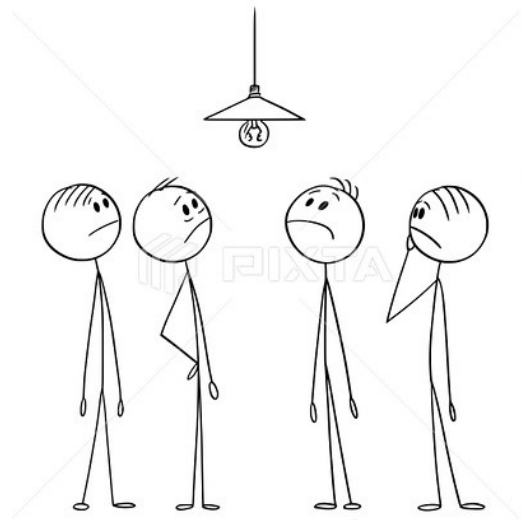
Alan has joined our training programme and has been busy buying kit for his radio shack ready for his foundation licence.

Dave, M0TAU has informed me he is going to install a DX Commander All band vertical HF antenna. I have seen good reports on this relatively new concept in verticals. This will be a good talking point at the club.

It goes without saying, if you see a new face please take them under your wing and make them feel at home.

Q: How many Radio Amateurs does it take to change a light-bulb?

A: Ten.  
One to change the light-bulb,  
and nine to stand around and tell him  
how bright it is, and how he could have  
done it better.



## Fake News

It has come to our attention that an amateur has been spreading false news about the North Bristol ARC. He was reported as saying that we had no members. If you hear anything like this, please correct them and inform them politely not to broadcast rumours.

# Talks at the Club you may have missed

## Guest Speaker G3ZXX

Dave, G3ZXX had been to the club about three years before with his talk on Magnetic loops, this was very well received. At the end of May he came back to see us following on our theme of Space Communication.

He had previously helped Mat, G7FBD on his own version of communicating with Q0-100. Mat's experiments are in the last three copies of Q5. Of course on the subject of satellites, not forgetting Dennis's talks on the launching of satellites and how transponders work. One of these transponders on Es'hail-2 (Q0-1000 is of course used for our use.

Dave arrived at 6pm to set up. Unfortunately, Edd Sherring was in concert in Cardiff and the Bank Holiday weekend made the roads around Bradley Stoke rammed with traffic making me from an aimed 15 minutes early to a 15 minutes late.

After I had unlocked, the dish was erected in the rear garden of SHE 7. This is a 1m dish. I took this photograph after it started to get dark so apologies for the lighting.(Rocky can be seen in the kitchen window)

The difficulty Dave had setting up is that the rear hedge had obscured the view of the satellite. After the dish was moved around connection was made. From this picture you can see the LNB cover that was 3D printed. Another use for 3D printing. (see the last Q5)



This box of goodies is the Power Supply. Because this is a portable unit it is powered by a Gel Cell. There is also a solar charge controller (to the right) this is used as Dave uses a solar panel to charge the battery system.

A system like this could also be used to power a portable HF system. The use for this has endless.

The water proof box incidently can be found on Amazon.

## Talk Continued

The talk was excellent but sometimes things do go a bit wrong. When it came to make a contact the link was lost. This was due to the large hedge at the rear of She7 as stated earlier. It had grown out of control partly blocking the view of the satellite. That however, didn't detract from the event as Dave had pre-recorded a number of contacts from earlier. Another highlight was that several guests from outside of our club visited us for the talk. For those of you who didn't come for the talk you missed an absolutely amazing event. Thanks to Dave G3ZXX

That concludes the Theme of the last six months or so being Satellites and space.

## The RSGB Came To The Club

For those who may not know we are in area 11 of the RSGB. Our area rep is Andy, G7KNA. Some of us oldies out there may remember one of our members Dick, G0XAY use to be the rep quite a few years ago.

Andy started his talk with a bit of history and what the society is doing for not only it's membership but all radio amateurs in the UK. Andy reminded us about the French wanted to grab the 2M band from us. The RSGB sent representation to the IARU (International Amateur Radio Union) along with the Germans to squash this theft. Bear in mind we are the sole users of this allocation unlike the 70cm band, this is owned by the military.

Obviously Andy wants us all to be members and I think that we should. However it is noted that not everyone can find the funds to join. I remember in my early days of the hobby, trying to pay the mortgage and bring up the kids, it was difficult. As soon as things improved, I joined.

Part 2 of the talk Andy took questions from the floor.

One question from the floor was why are there so many contests on HF. I also have a dislike for so many contests mainly because the contesters totally take over the bands, going over SSTV and other allocated frequencies. Andy said that there is not a lot that can be done to stop say, an Italian contest doing this. My answer is, the RSGB could start things of by setting an example. The allocation being "X" kHz wide. Record in the log the exact frequency used for each contact deduct points for going out of the contest allocation. If the band is too crowded then the stations QSY after say every 15min.



Andy, G7KNA in full flow

Andy has taken notes and is going to report back to HQ. I know him from way back and true to his word



## RAYNET TALK (Who's Ray)

The last talk of this quarter was from Mike M0DXV. RAYNET actually stands for Radio Amateur Emergency Network. I learned quite a few things from Mike, it all started in 1953 from the floods in East Anglia.



Mike M0DXV with his opening address

Mike had a very professional talk prepared, as indeed all of our guests had done during this current calendar of events.

Using the screen and our new TV projector we learnt about how RAYNET started and how the management structure of RAYNET is made up notifying us of the services that are able to use them in an emergency. The last call out was the Large storms at the beginning of the year. I know that our very own member Ian. G4TAH was one to be called out to do a shift.

One of the largest events RAYNET was to be called out for was the Lockerbie disaster of 1988. I expect most members will remember this when a Boeing 747 was blown up over the small boarder town. The amateur radio network was used in the search for bits of aircraft as well as the bodies of those that lost their lives.

If any of you readers out there wish to join RAYNET, take a look at the web site, or contact the editor for your details to be passed on to Mike.

Obviously the worst event to be part of is when there is a loss of life or a missing child. This is what training is all about. Controlling a fun run to the London marathon may seem trivial to some but, it gives the essential skills for the major call out that we all hope will never happen.

I can remember the London tube bombings of 2005, the cell network was down so the authorities sent runners to send messages, if only they called RAYNET.



Remember this famous photo from the Lockerbie disaster

## Club Nets & Contact Details

To spice up our nets, the Wed net will be a Technical net (If we can). If members have a problem, or just want to know how something works, ask your question here.

This came about because some participants of our nets didn't want to spend the night talking about the weather and general chit chat. They said it was boring, so wouldn't come on any net. The Chit Chat evenings will be the Sunday net. We hope this will cater for all.

**Wednesday net (This is the regular Net)** GB3BS 20:00 to 21:00

**Sunday Evening Net** This is on GB3BS 20:00 to 21:00 hopefully moving to GB3AC after the first half hour. (Check both repeaters)

**Saturday Mat's DMR Net GB7BS** 19:00 to 20:00 South west cluster TS2 (950) This cluster now consists of 10 repeaters in the SW

### Club Contacts

#### Secretary and Q5 Editor

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**Next Q5 November 1st**

### Q5 Publication

Last date for articles Oct25<sup>th</sup>

Publication Date November 1<sup>st</sup>

It is hoped that I will get articles sent to me from time to time. I thank all of you that have submitted items over the past couple of years. All back issues are available on the club's new web site.

[www.nbarc.org.uk](http://www.nbarc.org.uk)

## Calendar of events

August 5 <sup>th</sup>	Shack Maintenance	Training
August 12 <sup>th</sup>	Show and Tell Bring along anything of interest. A small prize for generating the most interest.	
August 19 <sup>th</sup>	General meeting	Training
August 26 <sup>th</sup>	Round Table. Find an Expert to answer your questions	
Sept 2 <sup>nd</sup>	General meeting	Training
Sept 9 <sup>th</sup>	Cheap ways to make a tracker By Dave G7BYN	
Sept 16 <sup>th</sup>	Free Chip Supper (Members Only)	Training
Sept 23 <sup>rd</sup>	Prep for Railways On The Air	Training
Sept 24 <sup>th</sup>	ROTA (Saturday)	
Sept 25 <sup>th</sup>	ROTA (Sunday)	
Sept 30 <sup>th</sup>	Dennis's other hobby RC vehicles?	
Oct 7 <sup>th</sup>	General meeting	Training
Oct 14 <sup>th</sup>	Shack Evening	Training
Oct 21 <sup>st</sup>	Film Night	
Oct 28 <sup>th</sup>	General Meeting	Training
Nov 4 <sup>th</sup>	Christmas Meal Planning & open Committee meeting	

We do our very best to put on the events listed but, due to unforeseen circumstances, things can change. If the event is important to you, you can always phone the secretary just to check if it is still on or not.

Secretary's contact number is 07533933831