

# Q5

## North Bristol Amateur Radio Club

Page Community Association,  
Page Road, Staple Hill,  
Bristol BS16 4NE

February 2024 Edition



*Ian, G4TAH having a joke at a special event*

### A New Year and a new Q5

We send out a warm welcome to all New members and the existing members that have moved to the new venue with us.

Our intentions this year is to get some antennas mounted. That will be phase1. With the antenna feeds back to the small room we can at least run radios from the club and use them for training. Phase2 will be the design and manufacture the operating desk. Help will be required for all these projects so this looks like it will be a busy year.

Ian has been a busy boy, at the start of the Page Community era. Not only does he act as a taxi providing transport for three other members but he found time to construct a number of Hot Spots for the club.

In this issue, he has compiled a set of instructions for setting up the software settings to getting your very own MMDVM working.

Ian is also one of our training managers, and is non stop busy, busy. Thanks Ian for all your hard work. In the next Q5 we will show you another worker in the NBARC

*Dave G7BYN*

## **A New Year For The Club. Here is Your Committee.**

### **Club Management**

**Chairman:- Paul, G8YMM**

**Secretary:- Dave. G7BYN**

**Treasurer:- Shaun, G8VPG**

**Vice Chair:-Mat G7FBD**

### **Other Committee Members**

**Membership Secretary:- Geoff M6GFM**

**Joint Training Manager Ian G4TAH**

**Joint Training Manager Dennis M0IYQ**

**Time To pay your subs** Sorry to bring this up, a lot of you paid up at the AGM. For those that haven't, please pay ASAP as knowing membership numbers helps with the club planning.

Membership fees are kept the same as last year with no increase.

£30 per year with a door fee of £2 on each visit. Gold membership is £120 per year with no door fee.

Family membership this is 1.5 times the type of membership chosen for details see the Chairman / Secretary / Treasurer or Membership secretary for full details.

The way to pay is either by **cash** at the door or by bank transfer. If you pay by bank transfer please use the details below.

### **North Bristol Amateur Radio Club**

**Sort Code 51 70 08 Account 77178491**

Please use your call sign and name as reference so the treasurer will know who has paid.

Shaun, our treasurer will then pass the information to the membership secretary, Geoff who will then issue you with your membership card.

We are sorry that due to Banking issues at our end **Cheques Cannot be Accepted.**

### **Note**

If you do have a problem transferring money to the club account, as a personal favour, If you give me the cash, I will pay it into my personal account and transfer it on your behalf. Our Membership Secretary will issue a membership card as a receipt.

### **Ham Licence Reminder**

There has been a lot of Bunkum heard on the air saying that there is now no need to update your details at least every 5 years. **Yes you still have to update at least every 5 years.** So if you hear rumours to the contrary, please correct them and protect your licence.

## More Club News



Mat Maori pose at Whitchurch

After a number of years off of the main committee, Mat is back. This time as Deputy Chair.

We would like to express our thanks for the help and dedication our outgoing Deputy Chair Alan, G7DRU has made to the club for many a year.

Alan was a fantastic help in organising the move from She7 and getting us a temporary meeting room at Filton Community. We obviously would have liked to have met there, but the cost of the single room would have been the end of the club as we know it.

I know that, speaking to Alan, He still wishes to stay a member of the club and some day soon he will venture up to see us. Once again, Thank You Alan.

## Radio Shack

This is the start of a new venture in our new venue and will be the first full year. There is a lot of things still to do at the club to get it to be the best club in the South West.

Plans are set out to hang antennas and set up the shack in it's final position. We cannot just hang what we want, we have to work with Page Community. They may also want us run data cables at the same time that we run coax. We endeavour to give them all the help we can. Page said that it will be approximately 2 months before we can start work, but this can always change. Unfortunately, this is out of our hands. Spring is obviously the best time to start outside work as we do require lighter evenings.

Help will obviously be needed in Hanging, drilling and the manufacturing of a work bench and operating desk so the calendar of events in the future will reflect all of these projects. The plan is to possibly set up a project manager to oversee the work. As we are starting afresh it is an ideal time to get it just as we want it from day one. We welcome your suggestions, this is open to every one of you to put your plans in to the committee. Have a word with the Chairman Paul, G8YMM in the first instance.

## New Members

May we send out a big welcome to the new members of our club. Over the last few months we have had a number of new members join our club. Please make them feel at home and help them with any questions about the club or, amateur radio they may have.

## Constitution

At this moment in time, your Secretary is hard at work rewriting the constitution bringing it into the 21<sup>st</sup> century. This will include GDPR and the use of Email instead of paper notifications. BACS (Bank Transfers) for payment of Membership fees and responsibilities of both the club and it's membership.

**Any proposed inclusions should be emailed to the Secretary by no latter than 1<sup>st</sup> March 2024 for discussion by the committee prior to the possibility of inclusion at the E.G.M.**

## Club News Cont'd

### Brain Dead Morons.

Recently, we have had a few brain dead morons interfering with our nets on GB3BS. These Morons must be totally thick as they cannot even pass the foundation exam that some 12 year olds pass with ease. If you hear them, please ignore their taunts.

Over the Christmas period we were just getting Ho Ho Ho, and constantly blipping the box. The other moron was using the call "Pirate91 calling"

Mat has been out tracking and reports has gone to Ofcom.

Ofcom are aware and evidence is being collated. They have advised us to stop tracking and as for legal reasons no more can be said. We cannot risk losing a court case by reporting anything beforehand.

### Direction Finding

Direction finding comes to the fore once more. With the ever increasing Pirate stations on the amateur bands, we need to be more vigilant. As we have previously Stated, Ignore them, Don't start a conversation. Direction finding by the authorities goes back a long time. I found this Photograph online. The Post Office RDF (Radio Direction Finding) lorry from 1927 for finding unlicensed amateur radio transmitters. It was also used to find regenerative receivers which radiated interfering signals due to feedback, a big problem at the time.

(Ref Wikipedia)

### Support your local repeater



OK, I am a bit biased here. I would like every one to support GB3BS, but it is OK if you support another local repeater. I know times are hard, and years ago when I was bringing up my kids I didn't have the money to go splashing out on repeater subs. However as soon as I could, I did. (If that makes any sense) Anyway, I am now pleading for anyone who uses BS regularly, to support the cause. There is maintenance and electricity to pay of course so I am asking on their behalf, just donate £10 for the year. If you can't no one will stop you using the box. However it would be nice if you could.

(Can I get up off my Knees now, Mat, Mat, **Mat**, Oh, he has gone again)

# Special events

## Christmas Party

Our **Free** Christmas Party, that was hastily arranged went off exceptionally well. That was the response of many of the membership out there. With a **Free Bar**, the event got off to good start.

The food was prepared by Geoff's wife Sally and, although she only had a short time to organise food, tables and crackers. An amazing event.

Do we do the same next year? Well it will be up to you the members. Personally, I believe this is a no brainer. It had a cost to the club, and was free to all members, but, that is what the club is all about.



This is Dong Chi, BI3BO From China. He joined us a few months ago and is currently attending Bristol University.

His plan is to take the UK amateur exam as there is no CEPT agreement for a reciprocal licence.

Should we now celebrate the Chinese new year in February, That is the year of the Dragon. I'll leave it to the membership.

All the best and I hope your year will be a good one.

The merriment lasted the evening long. **What other club can put on a Free event like this? With a Free Bar.**

Thanks go out to Geoff and Sally for all of their hard work into the presentation, what turned out to be an exceptional event

## Special Events

I was recently told by an anonymous member that it is ridiculous, we give a 5/9 then ask, “say again” so you shouldn’t give 5/9. I will however say speech Quality 5 but you may want a repeat because with the other station’s accent, may make you not hear correctly and want a repeat. So yes, a perfect signal, but, “SAY AGAIN”.

Another complaint from another member was, “you won’t see me any of your events because every contact is 5/9 QRZ. I can assure you all that is nothing of the sort. Some contacts last 3, 4 or 5 minutes having a proper “rag chew”. It is nice to work lots of stations but, it is no race to work as many as possible. It is no contest. So Please come along to these events, and see that it is great fun.

The calendar of special events this year is ever expanding. Obviously, we cannot do them all and other members will be required to make an effort to organise an event. Mat has compiled the list and can be whittled down, or even expanded on. Please have a word with him if you think of an event we need to cover.

Both myself and Mat like special events, mainly for the reasons as made out above. It however should not be the only events that the club should participate in. For that reason. Mat has his intension to incorporate a 6m contest with a bit of Nosh in the form of a BBQ.

Last year I was dragged kicking and screaming up to Togg Hill to have a bash at a contest. OK, it wasn’t too bad and I did have a bit of fun. It is not about me though, it is what you members want so please let Mat know at a club meeting or by Email your wants.



In this photograph I am working in the 6m contest with Mat just off camera holding a gun to my head.

Joking aside, I did enjoy myself. The antenna was a commercial Dipole on the top of a 15ft pole held up by an under wheel stand. 6M antennas are very quick to assemble.

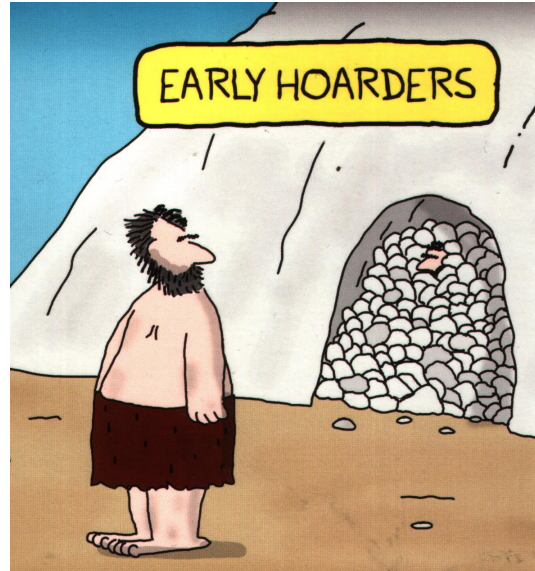
The reason Togg Hill was chosen for these events is the fact that there are toilets. As I have said many times before, this is important especially if we had young ladies or our XYL come along. We couldn’t expect them to use a tree or hedge.

As for using Togg Hill, This area is fine during the day or afternoon, but, early evening there is a large gathering of another form of club, that is best talked about in a top shelf magazine not in Q5.

We are therefore looking for an outdoor venue with toilets that we can operate a contest from. Mat, G7FBD is looking at Page Park. By the way, we have already been asked to support the Friends of Page park with a summer Fete. Unfortunately, they have not issued any dates yet. That is not good for us as our calendar can rapidly fill up.

# Fun Page

## Street golf



I get Jokes sent to me from time to time. The one on the right was on my birthday card. I'm not sure if there was a hint as to what my garage is like.



"Islands On The Air" would be more fun if WE had a radio too!



THE REAL REASON MANY MEN DON'T LIVE LONG AFTER RETIRING

LARRYS FUNNY POSTINGS

My Thanks go out to Mat G7FBD, Tony G8CJZ and Dick G0XAY for the supply of the jokes used over the months.





## Setup Instructions for the MMDVM Hotspot By Ian, G4TAH (continued)

### DStar

In the **D-Star Configuration** box

Check that your call sign is shown in the RPT1 and RPT2 boxes

In the Default Reflector box select **REF030** and 'C' in the next box.

Ensure in the box below the Language is **English\_UK**

Switch on **Time Announcements** and **Use DPlus for XRF**

Then **Apply Changes**

### DMR

In the **DMR Configuration** box

DMR Master is set to **BM\_2341\_United\_Kingdom**

Enter your Hotspot password in the next box if you have already created a Selfcare Account on the Brandmeister Network.

Network ESSID, ensure the box next to your call sign displays **00**.

Brandmeister Network Enable is **ON**

Then **Apply Changes**

Finally scroll down to the **Wireless Configuration** box

Click on the **Configure WiFi** button

Select YOUR WiFi signal.

Enter YOUR password and

select the country **GB**

Click on the **SAVE** button and then disconnect the power supply to the MMDVM unit.

Reconnect the supply to the MMDVM and it should now start up connected to your WiFi signal

For DMR users, now would be a good time to create your Selfcare account on the Brandmeister system if you have not already done so.

Go to the Brandmeister Network line in **DMR Configuration** and click on **Edit Device** which takes you to the Brandmeister Registration/login screen.

Once Registered, Log into your account, on the login page click on your userid and from the dropdown menu select **Selfcare**, scroll down to the Hotspot password box, create a password and save. Enter that password on the **DMR Configuration** page.

Ian, G4TAH

*Here is the type of MMDVM that Ian has been Building at the club.*

*It can be powered all day using a phone charging brick Like this one. If teathered to your phone, using the Phone's data, you can work the world. An ideal project to work DMR when no repeater is available.*

**The Editor**



## Let Us Make a Trap Dipole

This was the antenna of choice for the 777 event back in June/July 2023, as I had stated back in the August edition of Q5. I originally was going to use the dipole made of two 8m fishing poles mounted on a single supporting pole. We used this at the mills on the air weekend. I was not happy with this setup as it was effected by the wind when not being guyed. Guy ropes could not be used at Whitchurch, this is why site surveys are so important before an event. We completed ours several months before, to find problems such as this.

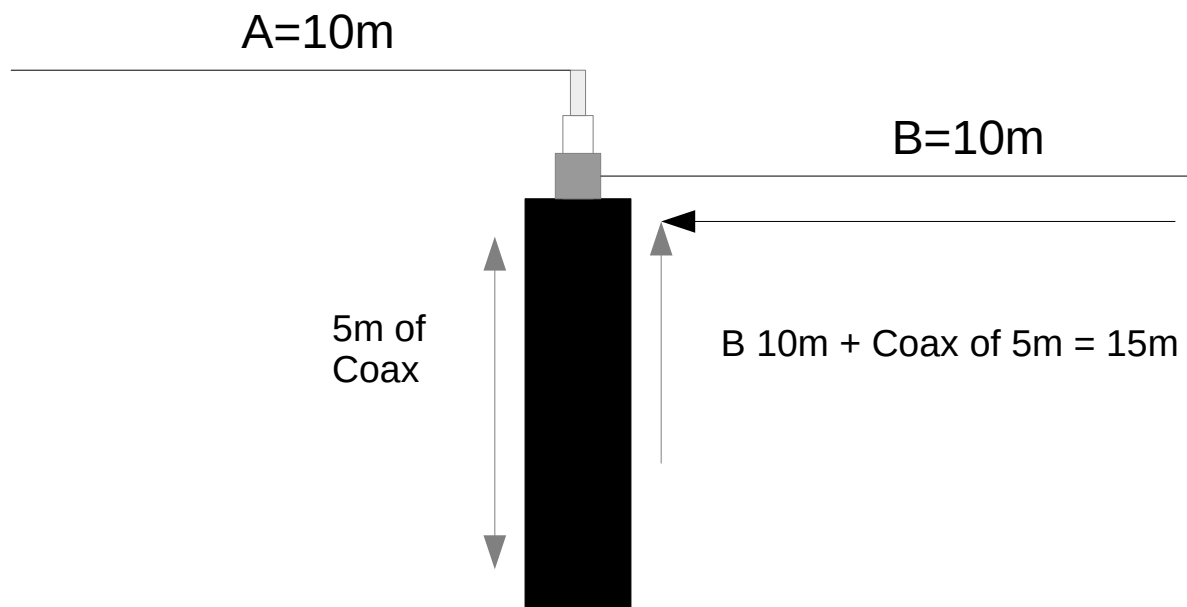


On the left you can see the trap dipole. It is quite easy to make, just needs a little planning and of course you need two of them. The traps can just be seen either side of the centre Balun. (I have drawn a circle around them). If the antenna is tuned correctly, you don't need a tuner. For newbies, this is a great saving on purchasing all the kit. When starting out on HF any saving can only be a plus.

Let us get started making the antenna for 20 and 40m Start off by buying, or making a centre "T" piece. I started this project using a "T" piece with a built in 1:1 Balun. With any Dipole this is a must. If you do not isolate the screen of the coax your dipole is not balanced. Some books show a dipole with nothing but joining one end of the dipole to the centre core of the coax and the other end of the dipole to the screen. This is far from ideal.

Let me show you why. Simply, In the diagram below we are making a dipole with each leg of 10m. The coax feed to the rig is 5m.

The leg (A) goes to the centre of the coax. The leg (B) goes to the screen, but look, the 10m of the leg is also connected to 5m of screen, so in theory, leg (B) is actually 15m in length. This is therefore not a balanced dipole, but an offset dipole. I know the explanation has not explained the skin effect, but that is another story.



## Let Us Make a Trap Dipole cont'd



This excellent home made “T” piece on the left was made by Tony, G8CJZ used a plastic cutting board and was complete with a 1:1 balun integral to the design. The commercial one I bought from a rally for my project turned out to be faulty so, being in a bit of a hurry to finish the project I chose a standard “T” piece using a dirty balun coil out of the feeding coax. This is an equally good way of breaking (Choking) the RF from entering the feed line. It consists of about 6 to 8 turns of coax wound in a coil about 4 inches in diameter. One of these can be made from the feed line.

Once we have chosen the type of “T” we are going to use we need to make the traps. I bought a 3m length of 60mm water pipe, I know it is a bit long, but it will last me for my water projects as well.

Cut 2 lengths of pipe about 10cm long. This will make the former. I used the programme on the web site <http://www.cqham.ru/coaxtrap.htm> to give me all of the winding information required.

Enter the coax type, the frequency (In our case 14.1MHz) and the former size. The result will give you how many turns and the length. The distance from the first to the last winding will also be given.

The former was drilled at one end first with 2 holes for the antenna wire (size to suit) and a hole for the coax, again the size to suit the coax used.

Proceed to wind the turns as the result of the calculator. Mark with a sharpie where the hole for the coax should enter the other end of the former. Another 2 holes were drilled for the other antenna wire.

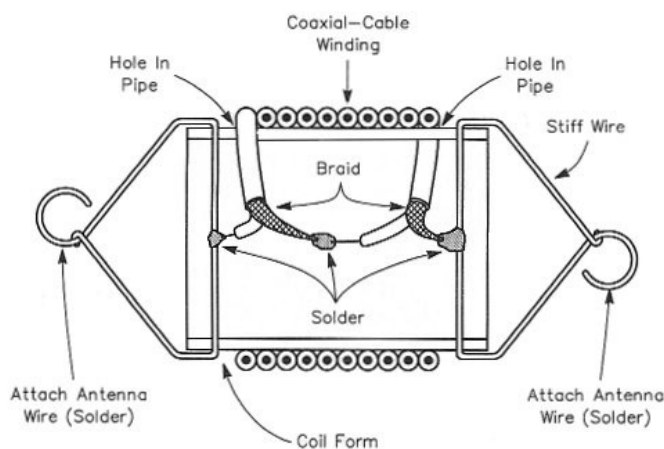
I grabbed this picture from the internet. It shows a slightly better construction than the one I made. Instead of the nuts and bolts to hold the antenna wire, I drilled 2 holes to weave the antenna wire at each end.

The coax is joined to the itself inside the pipe. Inner to the opposite braid then the other braid to one element and the inner to the other element.



## Let Us Make a Trap Dipole cont'd

I expect the page before didn't make any sense at all. So here is a picture of the connections.



The connections to the elements, in this case are different again. The choice of strain relief is entirely your choice, but the coil is the same in all cases. Once the traps are made, they must be tuned.

You can use an antenna analyser, VNA or a dip meter. I used my MFJ analyser with an induction loop mounted on the antenna socket. For instructions on how to do this see me at the club, and I can give you a quick demonstration.

To tune for the wanted frequency, in my case was 14.100 MHz or a little lower, move the windings in and out until correct. Seal with your favourite glue or tape. I used hot glue and then taped with insulating tape. Other methods could be heat shrink tube to make a more professional look.

Now the 20m wire antenna is connected to one end of each trap and the 40m wire antenna to the other end..

We now have our "T" piece connected to 10m of wire ( $\frac{1}{2}$  wave of 20m) a trap, then about another 10m of wire for the 40m section. Do your calculations then make it a little longer, the reason, when tuning, it is easier to shorten a piece of wire to tune, it is more difficult to make it longer. Obviously, this, is duplicated for each leg.

The traps and wire should then be strung up across the mounting poles and our old MFJ antenna analyser used to see how far out it was.

First, tune the 20m sections. The 20m sections should have been made long, then reduced to bring to tune (Section of the band you require). Remember, it should be reading lower frequency than 20m. Gradually reduce the length to bring to resonance. Do not tune the 40m section until the 20m section is complete.

The 40m section is now tuned, just as you would with a standard dipole.

## QSL Cards and Interesting Stories

I found this QSL card in a selection given to me by Paul, G8YMM. They were found, I think when we moved all of the paperwork out of SHE7's basement.

Noticing that it was of an F1 car, and the station was a station that was interested in F1. I took a closer look at the car and noticed that it was Sahara Force India Team, The team that my Son, Paul worked for.



ED7AKV appears to be a special event series of similar call signs. Working the series, you can get a certificate.

I don't know who it was in the club that worked "Fonsi", but it gave a good talking point.

I will look out for any F1 or Formula E Special event stations from now on.

I showed the card to my son, his photographic memory recalled that it was Barcelona the driver was Checo and it must have been pre season testing as his helmet was black. And yes, he said that he had worked on that car.

This team, Sahara Force India changed to Force India in 2018 and became Racing point in 2019. It was latter re-branded Aston Martin. My son left them in Nov 2022 for Envision team in Formula E. He helped take them to be become World Champion of 2023. I was there in London and met the team.

Isn't it funny how lives cross, and how it is a small world.

Emailing the Fonsi, EC7AKV (I know the card says ED7AKV) to try and find out more about him and what he achieved by this special event. As of yet, I haven't had a reply. I will look out for him at this year's Testing and of course the Spanish Grand Prix.

All this information from a little card and the stations working each other back in 2014.

In our special event stations, we have started using EQSL as the price of the conventional card system is not working too well. I recently had some empty envelopes returned to me as the stamps on them were no longer valid to use. I think the Post Office are in need of some more money, Could be for the CEO's bonus this year.

73 Dave G7BYN

## Calendar of events

- Feb 2<sup>nd</sup> General Club Night
- Feb 9<sup>th</sup> Lab View Demo Dennis, M0IYQ
- Feb 16<sup>th</sup> General Club Night
- Feb 23<sup>rd</sup> Round Table:- Members Tell Us What Events Should The Club Cover?
- Mar 1<sup>st</sup> General Club Night Committee have a Committee Meeting
- Mar 8<sup>th</sup> Software Defined Radio By Mike M1ARI
- Mar 15<sup>th</sup> General Club Night
- Mar 22<sup>nd</sup> Quiz with Prizes Before the Easter Break
- Mar 29<sup>th</sup> Good Friday:-No Meeting
- Apr 5<sup>th</sup> Introducing Dial On Demand for the South West Cluster by Mat G7FBD
- Apr 12<sup>th</sup> E.G.M to amend the Constitution
- Apr 19<sup>th</sup> General Club Night
- Apr 26<sup>th</sup> Solar Power for your Shed, Shack or portable setup
- April 27<sup>th</sup> International Marconi Day Location To Be Announced**
- May 1<sup>st</sup> Q5 Published
- May 3<sup>rd</sup> Prep for Mills On The Air. All members storing equipment for use at the event to deliver it to the club next week.
- May 10<sup>th</sup> Loading for Mills On The Air
- May 11<sup>th</sup> & 12<sup>th</sup> Mills On The Air at Ashton Wind Mill**
- June 15<sup>th</sup> BBQ and 6m Trophy Meals on the Hill Location To Be Announced**

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. A phone call is preferred rather than email or TXT. If you want a quick reply.

Secretary's contact number is 07533933831

## 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

**Saturday DMR Net GB7BS** This net has been suspended for the time being. The reason is due to the expansion of the network covers the whole of the South West and members on the net are mainly from the Bristol area, so in theory talk group 9 could be used instead of taking up the use of 21 repeaters.

There is another net that you can join, that is the 6m net via the GB3FH repeater every Thursday at 20:05 This net is ran by G4FJH

A 2m SSB (144.340) vertical net is also held every Monday evening at 8pm by Dave G4FJH

### Club Contacts

#### Secretary and Q5 Editor

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**Next Q5 May 1<sup>st</sup> 2024**

### Q5 Publication

Last date for articles April 24th

Publication Date May 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 three years or so. All back issues are available on the club's new web site.

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