





No 493 August 2022

Newsletter of the Harwell Amateur Radio Society.

www.g3pia.net

Affiliated to the Radio Society of Great Britain.

Editorial Comment

Here we are, back in Normandie ready to run "Le Tatty Piece de papier award" for summer 2022. Information on the times and frequencies for this landmark event can be found on page 18 of this QAV.

On Sunday 31st July we had our summer BBQ to which we invited members of the Caen Radio Club and others. One of the attendees was Jacques, F1BHL and Patricia, so we took the opportunity to present him with the G2HIF construction award for his 3m portable dish. I asked

Dominique, F5PAX to present the award as President of the Caen Radio Club as sadly. Dave, G8DVK Ann. G6SRX were unable to be present due to illness Ann's part. Many other members of the Caen Radio Club here were present to witness the



presentation - as well as partaking of the food and liquid refreshment that was on offer.

73, Mike, G8CUL/F4VRB.

An Over From Our Chairman

I hope you all managed to stay cool during the recent heatwave, especially considering members who operate from the attic! At Chilton we recorded 39°C as a maximum daytime temperature and only dipping on one occasion to a night-time minimum of 22°C at 01:00. With the lack of rain over the past month I wonder how your earthing systems for end fed aerials are performing, have you noticed any change in performance or is the lack of moisture a myth?

Last month's club meeting had a reasonable attendance where groups formed discussing a range of interesting topics. This was the last meeting until September when we hope to introduce some interesting talks. On that subject do you know anyone either from work or a friend who could present a talk on any interesting subject, not necessarily radio related? We are always searching for ideas for talks and would be pleased to have your thoughts on topics that may be of general interest. Perhaps you know someone who is sufficiently interested in a subject to be persuaded to offer a presentation.

We attended the NADARS rally at the Newbury show ground at the end of last month and thanks to the help of Howard, M0JWC we managed to dispose of a reasonable amount of 'Junk' raising £420 for the club's coffers. It was a fine day though rather windy causing a couple of the gazebo spars to fracture. My thanks go to all those who kindly donated equipment and components especially Kate G7DOF for contributing equipment and components from SK Ron G7DOE, also SK Bob G3GGG via his family.

The following weekend saw the club on Hagbourne Hill where we entered the RSGB VHF national field day. Stations were set up to operate on 6/4m 2m 70cm and 23cm. We had excellent support from members to assemble, operate and dismantle the 3 stations. There was even a delivery of most welcome ice creams. We paused the operating for a BBQ during early Saturday evening and although not as warm as could be expected at that time of the year the rain held off. An enjoyable event was had by all who participated. I am sure Ann, G8NVI as contest manager will elaborate further on the weekend.

Don't forget to join in 'Le Tatty Piece de Papier Award' that will be operated by Ann & Mike from France as F4VRB commencing on the 1st August - All the operating schedules are provided in the last QAV. (And this one - Ed)

Hope you all have a good summer break and we look forward to resuming club nights in September.

73 Dave, G8DVK

A Real Coffee Shop!

The attendees at the CS in July were Derek, G0MGZ & Trixie, Ron, G0BNC & Val, Marian, 2E0LNU, John, G6LNU, and Colin, G3NNG. A select few. It was agreed that we would also meet in August even though we do not hold a formal club meeting that month.

As for the McMichael rally, I did send an email to Ann saying that I had managed to shift a few bits of club junk also what club reprobates I saw there.

The next CS meeting will be on Friday 19th August starting at 10:45 at Millets Farm Café, this being the 3rd Friday in August.

Radio Active

Peter. **2E0XPR** - Hello to all members. This is my latest purchase As of this writing, we've only had it up which I am very pleased with. It is a for three days but so far results are hotspot that allows me to cross mode good, with clear contacts as far away using one handheld transceiver to as Quebec and Puerto Rico on 20 DSTSR-C4FM-FUSION NXDN. One can talk all over the world report in next month's QAV. from indoors or mobile with this Hotspot and it is only the size of a bar Julian is looking forward to the IOTA of soap.



My biggest disappointment was when it arrived I got clobbered with the £71.49 import duty.

Sean, 2E0HGZ and Julian, M7JMA - Back in Oxford and back on the air! We have once again borrowed the club's Yaesu FT-990 for the summer. Like last year, we've strung an end-fed long wire 20 meters down the garden, running from an upstairs window to a concrete pillar. We added height to that end by lashing together two broomsticks, one of which has a hole drilled in the end for the wire to go through, and lashing those to the

top of the pillar. Rough and ready, but it works!

and meters. We'll have a more complete

contest. Last year he logged 50 QSOs in 19 countries and wants to beat his record.

Jacques, F1BHL - Again this month was very successful related to the UKAC Contests: First place in AR section both on 2m and 70cm. It is the first time that this has happened in the same month.



on 23cm in AO section (claimed temperature solder paste and a hot air scores) with only 10W to finish the rework month. For the 23cm UKAC I used my orientation 3m dish on which I have replaced the soldering it in. Tested the output and it mosquito net by chicken wire. It is a was shorted to ground. After removing great improvement regarding the it (more hot air) I discovered I had got behaviour to the wind.

occurred because of high wind. The smaller! chicken grid has a mesh of 13mm so 23cm !

Ed)

Neil, **G4BRK** - VHFNFD was the big event at the start of the month. Weather not so good as previous years but not too bad either. Equipment seemed to mostly work as expected. I was a bit worried about backing the motorhome onto ramps with nobody to let me know how far to go but it went very well. Carolyn usually gets this job so I can avoid the blame if it goes wrong. We ought to have a discussion one, but I've already forgotten most of the things I had thought of at the time

need to get the file out.

transverter. The SAW filters

I am very happy too with the third place 3x3mm so hard to solder in. I used low system. - 1 checked carefully twice the orientation wrong by 90 degrees! Cleaned up and resoldered and it all The wind had the same speed as last works fine now. Not looking forward to month for the 23cm UKAC (that was a the 2350MHz SAW filters for the next fiasco) but this time no problem transverter rebuild, which are much

the wind goes through ... but not the I bought a calibrated 3.5GHz noise source from G8FEK after managing to buy an HP8970B Noise Figure Meter I have included a picture of the 3m dish for a reasonable price. I've measured a with the change. (See previous page - few preamps and results are in line with previous measurements made at microwave round tables, so looks like a very useful addition to the shack.

> Finally I've spent a bit of time looking at a 6cm transverter system acquired by Roger, MW00MB. It seems to be basically working and a few tweaks to the local oscillator tuning have brought the TX performance up to expectation. Hopefully we'll be able to make a QSO on 6cm before too long.

of what can be done better on the next Ann, G8NVI & Mike, G8CUL -Little progress has been made on either the 400W 2m PA or the 140W 23cm PA (the latter for use in France) Rear panels for the Hermes-Lite 2 SDR as we have been waiting for parts to arrived from the PCB manufacturer and arrive. The required bits for the 2m PA are close enough to right to use. If I arrived just before we were due to needed any more then a couple of leave for France so there was no time things should move a mm or so, but to do anything with them and the 23cm there is enough clearance that I didn't PA module, ordered at the beginning of June still hasn't arrived. This is from a well-known Dutch supplier, who now Another PCB received from JLCPCB is seems to be too busy to even email me for a 2-stage MMIC and SAW filter with progress - if any! Luckily this was amplifier for use in the new 1296MHz paid for via PayPal, so I should be able are to get my money back if I need to - eventually. I think this is pretty poor and somewhat frustrating.

Mike Connor - Hi Guys, All I can say is that I am new to this in that I do not have a call sign yet. I have booked an on-line course for the foundation and hopefully will be taking the exam in September. I have been involved with radios since a young lad as my grandfather had a radio shop on the Cowley road many years ago, By the time I came along he had given up the shop but was still active in repairing radios and TVs. It was him that introduced me to short wave listening etc.

I am now close to retiring and having been interested most of my life so I thought I would get a licence and get involved a bit deeper. I sail quite a lot and thought it would be fun to try some coms on board. I hold a marine SSB and VHT cert for many years. Not much more I can say at the moment I look forward to meeting you all and having a chat, probably drive you all mad with questions.

(As you can see, Mike is a very new member hoping to get licensed soon. Good luck Mike! - Ed)



Jacques, F1BHL holding the G2HIF trophy. In the background Yves, F4IMG and Yves F4HSL!

Some Radioactivity from Clint, M0OXF which is a bit big to fit into the normal Radioactive column.

I haven't had very much spare time to be in the shack this month. As usual work commitments and family life continue to keep me away from my radios! I did, however, take my youngest daughter to the Newbury and District Amateur



Radio Society rally on the 26th of June. It was great to see and chat to a number of HARS members: Howard (M0MJW), Dave (G8DVK), Jeff (M0UHF), Nigel (G0CQZ), John G6LNU and Marian (2E0LNU) and briefly Ann and Mike (G8NVI and G8CUL). I've probably forgotten somebody - but it was nearly a month ago! I purchased a couple of items: a heavy-duty antenna tripod with

telescoping mast and a guy-rope kit (I managed to convince the vendor to sell me his demonstration model as he had sold out) and more interestingly a Yaesu FRG-7 receiver. The tripod will be very useful as I am currently experimenting with a couple of 6m antenna designs and that involves a lot of putting them up for testing and taking them down again to make adjustments. The guy ropes make the antenna support almost a semi-permanent solution - and I'll save a small fortune on cable ties lol.

The Yaesu FRG-7 is receiver I've had my eye on for several years. Í alreadv own the later FRG-7700 and FRG-8800 both of which benefit from full solid state PLL synthesized tuning. The FRG-7 is one of the predecessors to those rias. with it's direct replacement, the FRG-7000.



Manufactured from the mid 1970s until around 1980, the FRG-7 is a triple conversion superhet that garnered an excellent reputation as a very sensitive receiver (0.7 microvolts from 2 to 30 MHz). With the addition of fine tuning towards the end of the production run, it is also quite selective (-6dB +/- 3.0 kHz). These aren't bad numbers for a receiver that cost about \$300 USD in the mid to late 1970s. Perhaps most critically, the FRG-7 is very stable indeed because it employs the famous 'Wadley Loop' frequency stability system.

The Wadley Loop system utilises only one independent frequency determining device at the front end - a 1MHz crystal oscillator, producing a signal at 1 MHz intervals. I will let you guys google the details of how the Wadley Loop system works, but essentially the received signal is mixed with the oscillator to generate an IF above the RX range. It mixes the same oscillator with a comb of harmonics and then selects one of the results with a band pass filter and mixes that signal with the IF again. This mathematically cancels any drift and generates a super-stable second IF.

Tuning this receiver is slightly more involved than most of us might be used to. First you select the band and then the MHz value for the intended frequency until an LED indicates the frequency is locked. You then adjust the preselector for optimum match, before finally setting the kHz-range frequency. Sounds a pain and it is if you're in a hurry, but it's also quite fun if you like twiddling with the controls of a radio. What surprised me more than the general performance of the FRG-7 was how accurate the frequency could be read from an analogue scale. It's accurate (on my example at least) to within less than 5Hz most of the time. Simply a superb piece of radio engineering.



Finally, I took the decision to step down from the HARS Committee. I had a great time being part of the team responsible for planning the club's activities etc., but I felt it was time to let someone else have a go. My thanks in particular to Ann (G8NVI) and Dave (G8DVK) for their tireless work and for the support from the other Committee members. In the meantime, I continue to run the HARS Twitter feed, join nearly all of the Wednesday afternoon nets and occasionally show up for the Friday night net.

Hamish, G0GLG tries his hand on VHFNFD

Portable Operation.

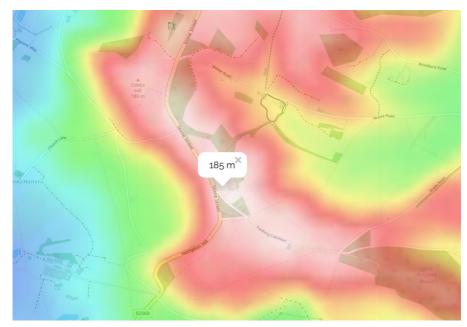
As you will be aware my portable operation from Ben Nevis did not happen due to the weather, but I did not want to waste the time spent making up the portable kit.

The RSGB NFD was due to happen whilst Linda and I were down in Kent, so this I felt was an opportunity to put the equipment to good use.

The first item on the agenda was to locate a suitable venue for portable working which was not too far from our location at Kingsnorth (just outside Ashford) in Kent.

The web page which I use is the Topographical Map for UK located via this web site https://en-gb.topographic-map.com/maps/b9/England/. By using this in conjunction with Google Maps I could then look around for the most local high point.

As some will know the Kent Downs run from Bluebell Hill in the north of the county to Folkestone in the south. Looking at the topographic map I saw that the nearest high ground to myself was located just to the east of me at a place called Farthing Common and was within 15 minutes driving.



This registered as 185m ASL and looking on Google maps it gives the following information.

"Farthing Common is an area of common land about 10 km northwest of Folkestone in East Kent. It is one of the highest points of the North Downs at 185 metres above sea level, and was the junction of the ancient trackway along the Downs from Folkestone, with the Roman road between Lympne and Canterbury"

Well, you can't get any better than that. So having found a suitably high point within easy driving distance I decided to go and look at what parking etc there would be. When I arrived, I found that there is in fact a suitable parking area which although only rough ground could support a good dozen or so vehicles. I also noticed there was one area in which only one vehicle could park with a small area of grass adjacent which was suitable for placing the small mast I had constructed for my Ben Nevis trip.



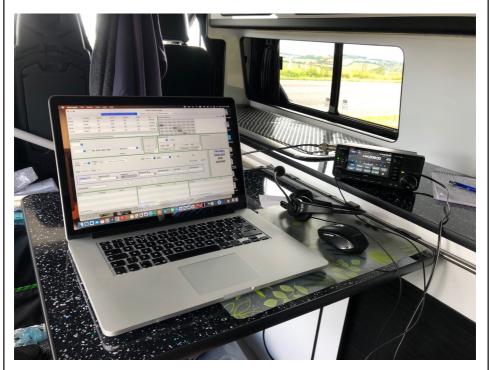
My Campervan and shack for the day.

When the Saturday arrived, I made my way to the site and arrived to find just 2 other vehicles parked there, none of which were parked in the single spot, so quickly got parked and set about erecting the small mast, this by the way is installed using a portable umbrella stake, the kind that has 2 spikes attached to the holder so you can drive it into the ground. I then erected the small dual 2m/70cm Yagi on the mast and passed the cable through the drivers window hanging some bright coloured ties on the cable so that no one would accidentally walk into it.

I then set up my IC705 and my laptop ready for the start of the contest, the radio being powered from a 12v/5a socket within the campervans consul which gave

me 10w output from the 705. This combined with the 3/5 element was my setup for the day.

I had decided to just leisurely contact stations and give as much points as I could on both bands. My tally for the day was 10 contacts and 3 countries which included both 2m and 70cm G3PIA/P stations. As I had agreed with Linda to only operate for a couple of hours, I called it a day on the Saturday at 17:00 local and headed home for tea.



My operating position.

On the second day I did not hear many new stations it being very quiet, but I did say hello and good morning to Dave, G8DVK who was manning the 70cm station who also said it was quiet at his end. On this day my tally was 7 contacts and one new country (EI) operating from 11:30 to 14:00 local

This was my first portable operation for over 32 years, and I thoroughly enjoyed the experience. If you have never done portable, then I can highly recommend it.

I look forward to my next outing, perhaps on the Ridgeway.

DX of the Month

It would be nice to continue filling this list, giving the results by band, so please keeping sending in what you have worked. I will normally list 1 entry/band/callsign. When sending the information to me, please list \emph{all} of the following information of the DX station. The entries are in date order -

Date, Callsign, band, mode, 6-figure Locator, distance.

Callsign	Date	Dx	Band	Mode	Locator	Distance (km)

Sadly, no best DX reports this month	Sadly,	no best	DX	reports	this	month
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Radio Diary - August 2022 Times in BST!

Date	Time (BST)	Event	
Thursday 4th		No Monthly Club Meeting	
Friday 19th	10:45	Coffee Morning at Millets Farm Cafe	
Mondays	19:30 on	Zoom Coffee Evening	
Wednesdays	10:45 on	Zoom Coffee Morning	
Wednesdays	14:00	HF Sked G8DVK 7.150 ±	
Fridays	10:45 on	Zoom Coffee Morning	
Fridays	20:30 20:45	Friday Night Sked G0AOZ 1.846MHz ± Friday Night Sked G0AOZ 3.710MHz ±	
Saturdays	15:30 on	Sked on 2m FM 145.4125MHz	
Sundays	15:30 on	Sked on GB3DI	
Tue 2nd	20:00-22:30	2m UKAC	
Wed 3rd	19:00-21:00	2m FT8 AC	
Sat 6th	15:00-19:00	2m Low Power Contest	
Sun 7th	09:00-13:00	70cm Low Power Contest	
Tue 9th	20:00-22:30	70cm UKAC	
Wed 10th	19:00-21:00	70cm FT8 AC	
Thu 11th	20:00-22:30	6m UKAC	
Sun 14th	15:00-21:00	4m Cumulative Contest	
Tue 16th	20:00-22:30	23cm UKAC	
Thu 18th	20:00-22:30	4m UKAC	
Tue 23rd	19:30-22.30	SHF UKAC	

Forthcoming Events August Coffee Morning

The next Coffee Morning will be on Friday 19th August at 10:45 at Millets Farm Shop Café (NOT Frosts). All members, friends and family are welcome.

Contest News

Contests for the coming month are now included in the Radio Diary

Full details of all forthcoming contests can be found on http://www.rsgbcc.org/

Contest Results

6m Trophy Contest

SOF Section MW8P (MW0OMB)—7th G6LNU—13th

6hr SOF Section M0UHF—16th

HARS are in 10th place in the AFS Section of the VHF Championship

2m FT8 Contest (July) 2022

Restricted Section M0UHF—22nd

70cm FT8 Contest (July) 2022

Open Section M0FXX—6th

Some Forthcoming Contests

Saturday 6th Aug-09:00-13:00 70cm Low Power Contest

https://www.rsgbcc.org/cgi-bin/contest_rules.pl?year=2022&contest=lp144

Maximum output Power 25W. Note: The use of ON4KST or other live chat facilities (active or passive) is not allowed in the contest.

Sunday 7th Aug—15:00-19:00 2m Low Power Contest

https://www.rsgbcc.org/cgi-bin/contest_rules.pl?year=2022&contest=lp432

Maximum output Power 25W. Note: The use of ON4KST or other live chat facilities (active or passive) is not allowed in the contest.

UKAC—Position so far

At the present time HARS are sitting 4th in the General Clubs Scores (out of 77 clubs). We are within striking distance of the Wirral Club for 3rd place. If you do join in any of the UKACs, please make sure that you submit your logs, or ask if you need some help - if you can scan them and send them to me I will enter them for you!

Ann G8NVI annstevens1256@gmail.com

	UKAC Jun-Jul		
	Callsign	Section	Position
23cm (Jun)	G4BRK	0	5
	G8CUL	R	4
	G8DVK	R	14
	F4HOG	R	19
	G0MJW	R	21
	MW00MB	AL	31
	M0UHF	AL	24
4m (Jun)	G8CUL	R	18
, ,	M0UHF	R	34
	MW00MB	AL	14
13cm (Jun)	G4BRK	0	2
ì	G8CUL	R	1
	M0FXX/P	R	15
	MW00MB	R	21
9cm (Jun)	G4BRK	0	5
` ′	G8CUL	R	2
6cm (Jun)	G4BRK	0	4
2m (July)	M0FXX	0	23
(*)/	F1BHL/P	R	1
	G8CUL	R	11
	MOUHF	R	46
	G0BNC/P	R	56
	G4BRK	R	69
	MW00MB	R	87
	F4HOG	R	104
	G6LNU	R	136
	G8NRP	R	152
70cm (July)	M0FXX	0	15
()	F1BHL/P	R	1
	G4BRK	R	11
	G8DVK	R	29
	MOUHF	R	44
	F4VRB	R	46
	F4HOG	R	78
	G0GLG	R	86
	G6LNU	R	116
	G0BNC/P	AL	22
6m (July)	MW00MB	R	25
om (oary)	F4VRB	R	40
	MOUHF	R	45
	F4HOG	R	84
	G6LNU	R	92

VHF National Field Day

The first weekend in July saw some 20 club members joining together to assemble, erect and run 5 stations for the best part of 24 hours in the annual VHF National Field Day. As in previous years, we were permitted to spend the weekend at Hagbourne Hill Farm (courtesy of Nicky Lay and his family).



On the Friday evening a team of 9 club members helped to erect the mast, antenna and tent for the 6m and 4m stations. The 6m contest took place on the Saturday and the 4m on the Sunday. Our dual-beam aerial meant that we didn't have to change aerials between the 2 contests.

Saturday morning saw the erection of the 2m station based around the club's trailer mast and using Dave, G8DVK's caravan awning to accommodate the station

We hired a generator to power the stations which

was sited midway between the 2m and 4m/6m stations and which operated faultlessly all weekend.

The 70cm and 23cm stations used the LandRover belonging to Mike, G0MJW, which not only has a

formidable pneumatic mast attached to it, but also has room inside to house 2 stations. 2 separate antennas were used on the same mast for 70cm and 23cm.

The weather was favourable on Friday evening and Saturday until mid afternoon. We were then



subjected to some very inclement weather which culminated in a rather spectacular rainbow!

During Saturday evening, those taking part were treated to a wonderful barbecue by Dave, G8DVK, Ann G6SRX and their family who prepared a really delicious meal during the heavy rain Thanks goes to them for an excellent meal in very trying conditions!

HARS entered the Restricted Section of the Contest and achieved the following:

Band	Contacts	Claimed Score	Best DX	km
6m	70	10,229 points	GM4ZUK/P	604
4m	50	8,701 points	GM4ZUK/P	604
2m	169	30,478 points	DR2X	756
70cm	74	13,742 points	DL8QS	716
23cm	30	5,654 points	PI4GN	578

Generally, the number of contacts we made was higher on previous years, but we will have to wait for the results to be published to know how we really did!

Whatever the outcome, a really fun weekend was had by all and it was encouraging to see some newer members of the club getting enthusiastic about portable operation!

CQ Worldwide: SSB

For those who would like to join in some more contesting, we hope to take part in CQ Worldwide (SSB Section) over the weekend of 29th—30th October. We normally operate from a member's QTH and this year the plan is to take part from the QTH of G8CUL and G8NVI in East Hagbourne. This is an HF Contest and quite a different experience from VHF NFD, but nevertheless, great fun. It is a 48-hour contest but we will probably choose to operate for less time that that.

Our participation will depend a bit on the situation with Covid, and will be open to all, but by prior arrangement please as our shacks are quite small. Further details will follow in next month's QAV.



Mike, G8CUL in the 'CUL/NVI shack



Chinese Team takeaway!

CQ Worldwide—October 2019

Angus, G0UGO with feline logger



Le Tatty Piece de Papier Award 2022

After a gap of 2 years due to COVID, Le Tatty Piece de Papier Summer Award will be taking place during the first 2 weeks of August.

As in previous years we will be operating from 'Le Vaucornet' our French home near Moncy in Normandy (IN98) and we will be QRV over 2 weeks on both the HF and VHF bands. Certificates will be awarded to all entrants along with a



small French delicacy, with a bottle of red wine for the overall winner! Please let us know by email if you are calling and we don't reply. We can try and listen a little harder.

We will be running skeds on the **HF** bands at 21.00 BST* as well as on 3 VHF/UHF UKAC using **F4VRB** as follows:

* Except for the Friday night club net on 160m and 80m which will be run by Roger, G0AOZ as normal starting on 160m at 20:30 BST.

Mike - mikeg8cul@gmail.com
Ann - annstevens1256@gmail.com

Date	Band/Frequency	Points
Monday 1st August	80m (3.700-3.710MHz)	1
Tuesday 2nd August	2m UKAC	2
Wednesday 3rd August	80m (3.700-3.710MHz)	1
Friday 5th August *	160m (1.846MHz ±)	1
(Roger, G0AOZ)	80m (3.710MHz ±)	1
Monday 8th August	80m (3.700-3.710MHz)	1
Tuesday 9th August	70cm UKAC	2
Wednesday 10th August	80m (3.700-3.710MHz)	1
Thursday 11th August	6m UKAC	2
Friday 12 th August *	160m (1.846MHz ±)	1
(Roger, G0AOZ)	80m (3.710MHz ±)	1

HARS LF Band Skeds

It is good to see that the Friday evening LF Band Skeds on both 160m and 80m continue to draw in a good number of club members both old and new. Band conditions often change from week to week, and members' experiments with different aerial configurations in an effort to get a better signal out, are always interesting to hear about.

We increasingly get non-club members calling into our nets, and it is interesting to see how our signals are received in different parts of the country. We have recently been getting reports via the HARS Twitter feed which is also nice to see.

Thank you to all club members who participate in this club event, and make it what it is - without you, the net would not exist! If any club members need help getting going on 80m or 160m with aerials or equipment, please ask, and we will do our best to assist you.

We try and send out email reminders for the net during late afternoon/early evening on Fridays. If you're not already on the list, but would like to receive these weekly reminders, please contact me (rogerpowell200@outlook.com).

73 Roger G0AOZ.

We have recently been contacted by Dave, M0NUT (a past member) who has some aerials for sale -

I have 2 antennas for sale if you know anyone who would like to collect them. I thought I would ask here first before Ebay. The H422 last retailed for £289 and I'm looking for £100. The m2 10 element yagi are approximately £480 new, looking for £150. Both were working when taken down and are ready to collect.

Comet H422 4 Band Rotary V Dipole antenna High Power (1kw SSB) 4-Band trap dipole antenna. Can be used both straight and /or as a 'V'. When used as V type, ready to transmit from just 3m above the ground. A CBL-2000, high power 2k/SSB balun, is included as a standard accessory, this also helps prevent TVI, BCI, and other sources of interference. Specially developed high power trap coils assure high power QSOs constantly. Frequencies: 7,14,21,28MHz, Impedance: 50Ω , VSWR: Less than 1:1.5 at centre frequency. Connector: SO239, Maximum Wind Velocity: 35m/sec, Length: 10.3m (straight assembly), 7.4m (V type assembly), Weight: 5.4kgs, Rotation Radius: 5.3m (Straight Assembly), 3.8m(V Assembly), Suitable mast diameter: 38-62mm

M2 Antennas 2M12 2 Meter Yagi Antenna -

12 element 2m Yagi, 2.5kW, Boom 19.5ft, Gain 14.9dBi, 22dB F/B, T-match, N female, 8 lbs weight. If interested, please contact Dave at -

abcdsgetls651291872@hotmail.com

CLASSIFIED ADS

Remember that you can advertise suitable radio equipment here for *free*!

Harwell Amateur Radio Society -Committee

OFFICERS

Chairman: Dave Aram, G8DVK Vice-Chairman: Angus Wilson, G0UGO Minutes Secretary: Tim Keep, M0KEP Treasurer/Corresponding Secretary: Ann Stevens, G8NVI

ORDINARY MEMBERS

Roger Powell, G0AOZ John Booth, G6ZHB Dave Hall, M0IXP Howard Griffiths, M0JWC Kim Merritt, M7KWM

Other non-committee positions

Contest Manager: Ann Stevens, G8NVI Rally Organiser: Ann Stevens, G8NVI RCE Head Trainer: John Morris, G6PEP RCE Secretary: Ann Stevens, G8NVI QAV Editor: Mike Stevens, G8CUL

Club Contact Details

Website: www.g3pia.net Email: hars@g3pia.net

Opinions expressed in QAV are the personal views of the contributors and cannot be taken as reflecting the views of the society, committee or editor.

The deadline for the September 2022 QAV is 25th August 2022. Articles submitted after this date cannot be guaranteed to be included.

Contributions from all members are greatly welcomed. They may be submitted to **qav@g3pia.net**.