Newsletter of the Harwell Amateur Radio Society.
www.g3pia.net
Affiliated to the Radio Society of Great Britain.

Dave, G8DVK, was unable to write a chairman's piece this month so I am filling this gap!

I just wonder what you all would like to see in QAV? Each month I receive a few articles for QAV and Ann, G8NVI, supplies me with contest information, calendar entries etc. I would dearly like to include more articles, technical or otherwise as I see QAV being the history of HARS and it would be nice for future members to be able to look back at what we all did in their past (our today!). Interesting articles don't just magically appear, someone has to write them, so if there's something that you are interested in, please write it, preferably in a '.txt' file with accompanying pictures/ images etc and send it to me at **qav@g3pia.net**.
Thanks, Mike, G8CUL/F4VRB, QAV Editor.

A *Real* Coffee Shop Visit! Report by John, G6LNU

The following club members attended the Coffee Shop at Millett's on August 15th,

Marian, 2E0LNU,
Ron, G0BNC,
Val,
Derek, G0MGZ,
Trixie,
Angus, G0UGO,
Elizabeth,
Colin, G3NNG,
Ian ,G4BYR,
John ,G6LNU,
John, G6PEP,
Jamie, G8RIA.
Jeff, M0UHF.

Another very good turnout, we had the two long tables along one wall and the room almost to ourselves which was a surprise. The next coffee shop will be on Friday, September 19th, usual time and place, see you all then.

73, John, G6LNU
m.durban1@ntlworld.com

QAV
No 530
September 2025

John, G6PEP goes on a walk!

This year I will be walking again for Maggie's, a leading cancer caring charity, and I am approaching my loyal friends for sponsorship donations.

This year's walk is taking place overnight on Friday 26th September, The route will start at Maggie's West London Centre at Charing Cross Hospital in Hammersmith, will call in at their Centre at Bart's Hospital near St. Paul's and will finish again at Hammersmith - a total of about 15 miles.

I have set up a fundrasing page (details given below) as my primary means of collecting contributions from my sponsors but may be able to get round some with a paper sign-up form, as an alternative. Please help support this great cause.

Many thanks in anticipation.

Do you know about Maggie's Cancer Caring Centres?
(http://www.maggiescentres.org/)
I am fundraising for Maggies and have an on-line sponsorship web-page
https://maggies.enthuse.com/pf/john-morris

Please visit, if you would like to donate or just know more.

(John, G6PEP is our RCE Lead Trainer and works hard behind the scenes updating the training material (when the syllabus changes!) and organising the actual RCE courses, at both Foundation and Intermediate levels. It would be nice if we could show our gratitude for the time and effort he puts in by supporting his charity work. - Ed)

RadioActivity

Ann & Mike, G8NVI/G8CUL - We have been in Normandy since July, taking part in the usual activities here, including helping F6KCZ/P on the French 432MHz contest in the first weekend of August. Despite a fairly flat band we added a useful number of QSOs to the final tally such that F6KCZ/P is currently in 1st place (based on claimed scores, not results). The results should be published soon. We have managed little other radio activities while we've been here except regular weekly visits to the Caen Radio Club clubroom

I have built a new support frame for the tower here. When we're not here we leave the tower luffed over, with a support to keep the load off the luffing cable - and also so that you can walk underneath the tower without hitting the elements with your head! Originally this was made in wood but that has finally given up the ghost. I have now completed a welded steel 'A' frame with cross-struts which is now painted for protection from the weather here as the garden is open to the prevailing weather from the west - and can it really blow here sometimes. In fact the west end wall of the house is tiled to stop the driving rain coming

through. This new support frame will have its inaugural outing shortly before our departure in a couple of weeks' time.

Workshop activity in the (18th Century) French barn!

Forthcoming Events

Thursday 4th September 2025—CANCELLED

Friday 19th September 2025 - Monthly Coffee Morning at 10:45 at Millets Farm Shop Café

Thursday 2nd October 2025—Planning for CQ Worldwide HF Contest. 7.30 for 8.00 Chilton Village Hall and Zoom

Friday 10th—Sunday 12th October—RSGB 2025 CONVENTION. Kents Hill Conference Centre, Milton Keynes.

Friday 17th October 2025 - Monthly Coffee Morning at 10:45 at Millets Farm Shop Café

Saturday 18th October—Jamboree on the Air (JOTA). Chilton Village Hall.

Saturday 25th—Sunday 26th October—CQ Worldwide HF Contest. Chilton Village Hall. Saturday 0900—Sunday 1900.

More news from Clint, M0OXF

Hi everyone. I hope you've been enjoying the (mostly) good weather this summer. At the start of last month, the whole family went on holiday to the Greek island of Santorini. We've been before - two years ago and had such a good time, the family holiday planning committee (my father-in-law and my sister-in-law lol) decided we should go again this year, but to a different resort. So, at the beginning of August we found ourselves in Thira - all eleven of us! A great time was had by all and with beautiful weather, we spent a week mostly by the pool (pools actually - our hotel had about six) and by night, eating and drinking quite a lot of alcohol. Whilst there, my daughter Lola and sister-in-law had birthdays which were celebrated with even more alcohol. *(Not Lola I hope! - Ed)*

Some of you will know that I always like to take a shortwave radio on my travels, whether it be a business trip or holiday. On business trips, where I generally have much more free time, I take a wideband active magnetic loop antenna - the Bonito/NTi MegaLoop FX (think Wellbrook ALA1530 but with a flexible cable rather than a rigid aluminium loop).

On family holidays, I'm literally stealing an hour here and there, usually late at night after everyone has gone to bed and as such, I take a simple random wire. To make life even easier, I normally use a Sony wire antenna that terminates in a plastic junction box to a 3.5mm mono audio plug. Perfect for most of my portable shortwave receivers which are fitted with a suitable external antenna socket.

For the past 5 years, my go-to radio for travelling has been the excellent Tecsun PL-880. Widely regarded as one of the best modern portables on the market, it has served me very well. However, after my trip to Pittsburgh and Houston last year, I decided it was time for a change.

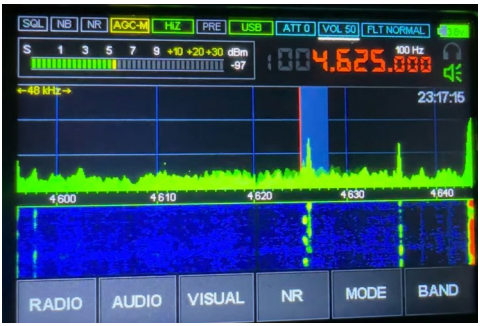
Enter the Malahit DSP2 portable. The DSP2 is a compact, portable SDR with continuous coverage from below longwave up through VHF/UHF to 2 GHz (depending on the firmware). It features a superb colour touchscreen, with spectrum scope and waterfall display, and can handle AM, FM,

SSB, CW, and digital modes. It's certainly small enough for travelling with, although the (superb) machined aluminium case is a bit of the heavy side. The DSP tech has so many signal conditioning options for AF bandwidth and filtering, there's almost too much choice. However, two excellent features are the very fine RF gain control which helps to offset the upper dynamic range limitations with a large or active antenna and the noise reduction circuit is simply the best I've ever used.

Some of you might know that hotels are not the quietest of environments, in fact they're usually terrible for background QRM. Our hotel in Thira was no exception - the noise floor across all the bands from longwave 153 kHz, up through the HF bands was much higher than what I'm used to on the edge of Eynsham, however, that didn't put me off too much. I always find it compelling to check out what I can hear when I'm abroad - and that usually results in some interesting signals copied. I spent about three hours total 'DXing' on longwave and shortwave and managed to copy a few stations - here is a selection of the most interesting/difficult catches:

Shortwave

S30 'The Pip' Russian channel marker, Rostov Na-Donu: 3756 kHz



UVB-76 (NZhTI) 'The Buzzer' Russian channel marker: 4625 kHz

RAF VOLMET St. Eval, Cornwall: 5450 kHz

Radio Mali,

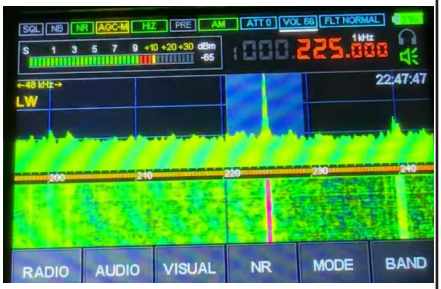
Shannon VOLMET: 5505 kHz

Bamako: 5995 kHz

HSW Bangkok Meteorological Radio 8743 KHz

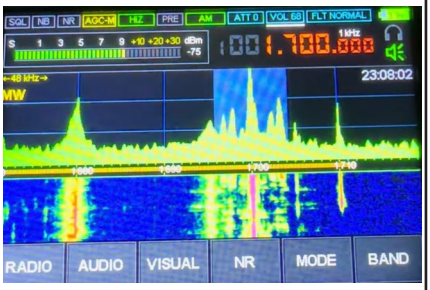
Longwave

Medi 1, Nador, Morocco: 171 kHz



Polski Radio, Jedynka Poland: 225 kHz

Thira Non-Directional Beacon 'THR': 307 kHz



Medium wave X-Band pirates: 1.5 to 1.6 MHz

Of everything I heard in Santorini, obviously the THR non-directional beacon was the easiest catch. I do DX 'NDBs' from time-to-time and always have a listen in the gap between the longwave and medium wave bands, particularly when I'm travelling. Probably the best DX was Bangkok Meteorological Radio. I've heard this station several times, but it's a difficult catch from my QTH even using much more sophisticated receivers and antennas. I was about 1,830 km closer to their transmitting site in Santorini lol, but even so, with elevated levels of local QRM and about 20 feet of wire, this was good going. Anyway, that's about it for now.

In other news, I have managed to finally get hold of another Eton E1 shortwave portable. They have been out of production for about 15 years, and I (stupidly!) sold my original example. More about that in next month's issue. I wish you all good DX and 73.

More activity from Rob, 23cm EME and otherwise!

I have continued to work new stations via EME on 23cm and have now completed with 162 different stations (initials in EME speak). The most recent new contacts have been with the following stations.

1	KH6FA	BK29	Frank	20/07/2025
2	N0LFW	EN10	Lyle	20/07/2025
3	W5AFY	EM04	Dan	20/07/2025
4	PA3HDG	JO31	Marcel	21/07/2025
5	LB6B	JP20	Ingerbrigt	23/07/2025
6	KD5CHG	FN31	Matthew	23/07/2025
7	EA2BRI	IN92	Javier	25/07/2025
8	OZ3Z	JO45	Anders	17/08/2025
9	LU8ENU	GF05	Juan	17/08/2025
10	HB9Q	JN47	Dan	17/08/2025
11	OH0/EA8DBM	JP90	Alex	18/08/2025
12	DG0FE	JO62	Lothar	20/08/2025

Every day new stations are getting going on 23cm EME with contacts being made with 50 watts at the feed of single yagi. A good preamplifier at the feed is essential if you are to hear any stations. Why don't you try a sked with one of the big guns like HB9Q? If you go on Daniel's webpage, he has an area for arranging a sked across several bands.

I am now in the Luberon in the South of France for the next month and have brought my old Icom IC-706Mk2 with various antenna turners, some wire and coax. I am now scouting out the most suitable location for the antenna(s) and will try and work the Wednesday net on 40m and 80m. I will also be attempting to work Mike and Ann in Normandy on the HF bands. I don't believe I have any realistic prospect of working them on 2m given we have the Vaucluse Mountains and Mont Ventoux (6273 ft AMSL) in the direct path with a few kilometers!! I might try operating portable from the top of Mt Ventoux which might help.

I have also brought my West Mountain RigBlasterPro which I hope to be able to get working with the IC-706 on digital modes like FT-8 etc.

:

The new French location for F/M0FXX in JN23PW until the 20th September Life can sometimes be really tough!

Sean and Julian McLachlan, 2E0HGZ and M7JMA

Another successful stay in Oxford! I got lots of research done and my son showed his Canadian girlfriend around England.

On the radio front, we borrowed a club rig and did our usual arrangement of an end fed running from an upper window to a pole at the end of the garden. We'd like to do something snappier, but with a rental home we are limited.

Propagation wasn't as good as last summer and we struggled to make transatlantic contacts. Even so, we had fun. Julian did well on FT8, and I participated in Harwell's 80m nets, as well as an Irish net and the net of the Royal Signals ARS. I got QSOs with two new countries this summer, Algeria and Western Sahara. S01WS, the Western Sahara station, was a bit of an enigma. It's QRZ page proclaims that Morocco is illegally occupying the territory and that it should be a sovereign state. The Moroccan government has banned such statements so I wonder how they are getting away with it. Perhaps they aren't where they say they are? Most likely they are operating out of one of the Saharawi refugee camps on the Algerian side of the border, where the Algerian government would support such activity. Their QRZ page says they don't answer questions via email so I guess we won't know for sure unless someone triangulates them!

Now I'm back in Madrid and then later Tangier. Julian has returned to British Columbia for the fall term. I'll be back in Canada in February and we'll do some more radio then. He's going to buy a car and we plan on putting a mobile rig in it. We should get some good transpacific contacts if we park on a ridge overlooking the ocean at night.

More uses for a NanoVNA
Richard, G0REL

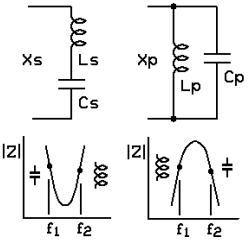
Tuned Circuit Series & Parallel L & C

Occasionally one wants to know the values of the inductance (L) and capacitance (C) forming a tuned circuit but it is not possible to separate the components. Examples might be potted devices, antenna traps or simply the inductance and stray capacitance of a choke balun.

Background

A nanoVNA provides an easy way to measure the performance and the variation of impedance of a circuit with frequency. A glance at the Smith chart display (or even a simple continuity check) will show whether the physical components are in series or a parallel.

By measuring the impedance at two frequencies, ideally either side of the resonant frequency, the values of C and L can be found for a series or a parallel circuit. The series components Ls and Cs are relatively easy to calculate from the impedances measured. It is assumed here that the values of L and C do not change with frequency [1] in this range and, to simplify the mathematics, that they have no loss.



$X1 = 2\pi f_1 Ls \;\; 1/(2\pi f_1 Cs)$ and $X2 = 2\pi f_2 Ls \;\; 1/(2\pi f_2 Cs)$

where X1 and X2 are the reactance values measured at f_1 and f_2 respectively. The equations can be rearranged to give expressions for Ls and Cs in terms of the values of f_1, f_2, X1 and X2. See the Appendix.

For a parallel circuit it is much more work to find the values, Lp and Cp, using impedances. Believe me, it's simpler to work with admittance (Y), conductance (G) and susceptance (B). After converting the values [2], the evaluation of the parallel component values, Lp and Cp, follows the same pattern as for the serial values, Ls and Cs.

Tired of pressing the buttons on my calculator, I wrote a Java Script program to do the work. A few lines of algebra produced the expressions to be evaluated but it took me far longer to write the HTML code to enter the data and display the results.

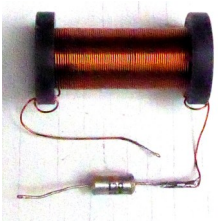
Instructions

Connect the tuned circuit to Port 1 of the nanoVNA and note its resonant frequency and whether it is a series or a parallel connection. Using a marker,

also note its impedance at two frequencies, ideally either side of the resonant frequency.

Enter the two frequencies and their corresponding impedances in the boxes and press Calculate for the results. As a check, the resonant frequencies of the L and C values are also calculated and displayed.

Test Measurements



An inductor with 63 turns of 0.4mm dia Cu enam wire wound on a 13mm diameter former and a 120 pF polystyrene capacitor were used.

A Peak Atlas model LCR40 [3] measured L = 20.8 H and C = 118.4 pF at 200 kHz.

When these components were connected in parallel and then in series to make tuned circuits, the nanoVNA measurements gave the inductance value as 19.3 H and the capacitance as 125 pF. Measuring the inductor alone, suggested that its self-capacitance is 3pF.

[1] Ferrite and iron dust cores may not satisfy this requirement.

[2] To convert from impedance (Z) to admittance (Y)
$Z = R + jX$
$Y = G + jB = 1/Z = 1 / (R+jX) = (R-jX) / (R^2+X^2)$
so ... $G = R / (R^2+X^2)$ and $B = -X / (R^R+X^2)$

[3] Specification for Peak Atlas model LCR40 Passive Component Analyser:
Inductance: 1µH to 2H, resolution typically 0.8µH, accuracy typically ±1.5% ±1.6µH
Capacitance: 0.5pF to 10000µF, resolution typical 0.5pF, accuracy typically ±1.5% ±1.0pF

Appendix

Derivation of expressions for inductance and capacitance:

$X1 = 2\pi f_1 Ls - 1/(2\pi f_1 Cs)$ and $X2 = 2\pi f_2 Ls - 1/(2\pi f_2 Cs)$
or
$X1 = \omega_1 Ls - 1/(\omega_1 Cs)$ ... (eqn 1) and $X2 = \omega_2 Ls - 1/(\omega_2 Cs)$ ... (eqn 2)
Multiplying (eqn 1) by ω_1
$\omega_1 X1 = \omega_1 Ls - 1/Cs$
and multiplying (eqn 2) by ω_2
$\omega_2 X2 = \omega_2 Ls - 1/Cs$
Subtracting: (eqn 1) - (eqn 2)
$\omega_1 X1 - \omega_2 X2 = \omega_1^2 Ls - \omega_2^2 Ls$

so ...

$Ls = (\omega_1 X1 - \omega_2 X2) / (\omega_1^2 - \omega_2^2)$

Similarly ...

$1/Cs = (X1/\omega_1 - X2/\omega_2) / (1/ \omega_1^2 - 1/ \omega_2^2)$

From [2]

$B1 = -X1/(R1^2+X1^2)$

$B2 = -X2/(R2^2+X2^2)$

Leading to ...

$Cp = (\omega_1 B1 - \omega_2 B2) / (\omega_1^2 - \omega_2^2)$

... and ...

$1/Lp = (B1/\omega_1 - B2/\omega_2) / (1/\omega_1^2 - 1/\omega_2^2)$

HTML page showing the results for the test components connected in parallel and then in series...

Tuned Circuit L & C values

Richard Gaskell G0REL - 2025 - version: 2a

Connect the tuned circuit to Port 1 of the nanoVNA and note its resonant frequency and whether it is a series or parallel resonance. Using a marker, note its impedance at two frequencies, ideally either side of the resonant frequency.

Enter the two frequencies (Freq 1 & Freq 2) and their corresponding resistances and reactances in the table.

Press Calculate for the results.

Freq 1 (MHz)	R1 (ohm)	X1 (ohm)
2.5	3.0	-204
Freq 2 (MHz)	R2 (ohm)	X2 (ohm)
4.0	4.2	168

Calculate

CALCULATED VALUES

```
Freq 1 = 2.5 MHz        R1 = 19.7 ohm    X1 = 758 ohm
Freq 2 = 3.5 MHz        R2 = 122 ohm     X2 = -2350 ohm

Parallel circuit ...
Lp = 19.230 uH
Cp = 126.828 pF
Resonance = 3.223 MHz  Q = 101.0

 --------------------

Freq 1 = 2.5 MHz        R1 = 3 ohm       X1 = -204 ohm
Freq 2 = 4.0 MHz        R2 = 4.2 ohm     X2 = 168 ohm

Series circuit ...
Ls = 19.294 uH
Cs = 125.547 pF
Resonance = 3.234 MHz  Q = 109.3

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The HTML file can be obtained from Richard directly or from me. We hope to be able to put it on the HARS website 'soon'!

Radio Diary - September 2025

Date	Time (BST)	Event
Thursday 4th	19:30 for 20:00	**CANCELLED**
Friday 19th	10:45	**Coffee Morning at 'Millets Farm Shop Café'**
Mondays	19:30 on	Zoom Coffee Evening
Wednesdays	10:45 on	Zoom Coffee Morning
Wednesdays	15:30 -	HF Sked G3PIA 7.150 ±
Fridays	10:45 on	Zoom Coffee Morning
Fridays	20:30	Friday Night Sked on 3.710MHz ±
Saturdays	15:30 on	Sked on 2m FM 145.4125MHz
Sundays	15:30 on	Sked on GB3DI
Mon 1st	20:00-21:30	Autumn Series SSB
Tues 2nd	20:00-22:30	2m UKAC
Wed 3rd	18:00-22:00	2m FT8 AC (2hr or 4hr)
Sat 6th-Sun 7th	15:00-15:00	2m Trophy Contest
Sun 7th	12:00-16:00	5th 2m Backpackers Contest
Sat 6th-Sun 7th	15:00-15:00	SSB Field Day
Tues 9th	20:00-22:30	70cm UKAC
Wed 10th	18:00-22:00	70cm FT8 AC (2hr or 4hr)
Wed 10th	20:00-21:30	Autumn Series CW
Thu 11th	20:00-22:30	6m UKAC
Mon 15th	20:00-22:00	RSGB FT4 Contest
Tues 16th	20:00-22:30	23cm UKAC
Thurs 18th	20:00-22:30	4m UKAC
Sun 21st	10:00-13:00	4m AFS Contest
Tues 23rd	19:30-22:30	SHF UKAC
Wed 25th	20:00-21:30	Autumn Series DATA

UKAC Contest Results 2025

1.3GHz UKAC 15/07/25

Open

Pos	Callsign	Loc	QSOS UBNs	Score	Bonus	Total	Norm	ODX	Kms	Power	Group	Ant show	Equipment show	Comments show
6	F1MKG	JN08KQ	23	9,545	5,000	14,545	687	GD8EXI	716	75	Harwell ARS			
11	PA0WMX	JO21XI	10	4,899	2,500	7,399	375	G4ASR	619	120	Harwell ARS			
16	PE1EWR	JO11SL	7	1,905	3,000	4,905	62	G4ASR	451	80	Harwell ARS			

Restricted

Pos	Callsign	Loc	QSOS UBNs	Score	Bonus	Total	Norm	ODX	Kms	Power	Group	Ant show	Equipment show	Comments show
3	G8CUL	IO91JO	51	9,840	12,000	21,840	925	PA0T	569	100	Harwell ARS			
13	G8DVK	IO91IN	33	4,056	6,500	10,556	555	GD8EXI	365	100	Harwell ARS			
21	F4HOG	JN09OJ	8	2,422	2,500	4,922	259	G4ODA	387	50	Harwell ARS			
24	F4HRD	JO00XX	6	1,349	2,500	3,849	148	G4CLA	275	9	Harwell ARS			

Low Power

Pos	Callsign	Loc	QSOS UBNs	Score	Bonus	Total	Norm	ODX	Kms	Power	Group	Ant show	Equipment show	Comments show
1	F1BHL/P	IN99OI	40	12,652	6,500	19,152	1,000	GD8EXI	593	10	Harwell ARS			
16	M0UHF	IO91IP	20	2,398	5,000	7,398	625	F1MKG	364	10	Harwell ARS			
20	MW0OMB	IO81HN	10	1,828	3,500	5,328	525	F1BHL/P	307	10	Harwell ARS			

50MHz UKAC 10/07/25

Restricted

Pos	Callsign	Loc	QSOS UBNs	Score	Bonus	Total	Norm	ODX	Kms	Power	Group	Ant show	Equipment show	Comments show
19	G8CUL	IO91JO	53	20,843	10,000	30,843	797	9A9O	1,579	100	Harwell ARS			
26	M0UHF	IO91IP	42	15,056	10,000	25,056	719	9H1TX	2,155	50	Harwell ARS			
39	G6LNU	IO91HO	14	12,157	3,000	15,157	573	IW0BCF	1,512	95	Harwell ARS			
40	F4HRD	JO00XX	46	10,519	4,500	15,019	561	MW0LKX/P	388	80	Harwell ARS			
62	PE1EWR	JO11SL	17	5.327	4.000	9.327	314	MW0LKX/P	470	80	Harwell ARS			

70MHz UKAC 17/07/25

Restricted

Pos	Callsign	Loc	QSOS UBNs	Score	Bonus	Total	Norm	ODX	Kms	Power	Group	Ant show	Equipment show	Comments show
24	G8NVI	IO91JO	32	4,754	7,500	12,254	616	EI8KN	423	40	Harwell ARS			
31	M0UHF	IO91IP	30	3,177	5,500	8,677	500	G4FZN/P	288	50	Harwell ARS			
42	PE1EWR	JO11SL	8	2,765	3,000	5,765	316	G4ASR	451	40	Harwell ARS			

Low Power

Pos	Callsign	Loc	QSOS UBNs	Score	Bonus	Total	Norm	ODX	Kms	Power	Group	Ant show	Equipment show	Comments show
4	MW0OMB	IO81HN	38	7,002	7,000	14,002	785	GI4SNA	375	10	Harwell ARS			

SHF UKAC 2.3 GHz 22/07/25

Open 2.3 GHz

Pos	Callsign	Loc	QSOs UBNs	Score	Norm	ODX	Kms	Power	Group	Ant show	Equipment show	Comments show
1	F1BHL/P	IN99OI	18	6,286	1,000	GM4JTJ	820	75	Harwell ARS			

Restricted 2.3 GHz

Pos	Callsign	Loc	QSOs UBNs	Score	Norm	ODX	Kms	Power	Group	Ant show	Equipment show	Comments show
1	G8CUL	IO91JO	30	4,804	1,000	GM4JTJ	568	25	Harwell ARS			
21	MW0OMB	IO81HN	3	531	332	G3TCU/P	201	2	Harwell ARS			
27	G4BRK	IO91HP	3	112	152	G3TCU/P	75	10	Harwell ARS			

SHF UKAC 3.4 GHz 22/07/25

Open 3.4 GHz

Pos	Callsign	Loc	QSOs UBNs	Score	Norm	ODX	Kms	Power	Group	Ant show	Equipment show	Comments show
7	G4BRK	IO91HP	2	88	248	G4SJH/P	75	40	Harwell ARS			

Restricted 3.4 GHz

Pos	Callsign	Loc	QSOs UBNs	Score	Norm	ODX	Kms	Power	Group	Ant show	Equipment show	Comments show
3	G8CUL	IO91JO	10	1,011	878	G1ZAR/P	197	10	Harwell ARS			

144MHz UKAC 05/08/25

Open

Pos	Callsign	Loc	QSOS UBNs	Score	Bonus	Total	Norm	ODX	Kms	Power	Group	Ant show	Equipment show	Comments show
13	PA0WMX	JO21XI	37	19,001	6,000	25,001	647	GW0RHC	710	400	Harwell ARS			
26	F4HNP	IN99TF	15	5,087	4,000	9,087	264	G4FZN/P	559	140	Harwell ARS			
28	F4IMK	IN99TG	11	2,970	3,000	5,970	205	GW0RHC	377	120	Harwell ARS			

Restricted

Pos	Callsign	Loc	QSOS UBNs	Score	Bonus	Total	Norm	ODX	Kms	Power	Group	Ant show	Equipment show	Comments show
19	G8DVK	IO91IN	66	11,029	12,000	23,029	863	GM4JTJ	572	100	Harwell ARS			
20	F4VRB	IN98PT	41	15,427	7,000	22,427	856	G4FZN/P	604	100	Harwell ARS			
21	G4BRK	IO91HP	60	9,963	12,000	21,963	848	GM4JTJ	562	100	Harwell ARS			
24	M0UHF	IO91IP	71	10,077	9,500	19,577	825	PA0WMX	503	100	Harwell ARS			
30	G4HLX/P	IO91GN	75	9,890	8,000	17,890	780	GM4DIJ/P	434	100	Harwell ARS			
37	MW0OMB	IO81HN	44	8,505	8,000	16,505	727	G8PNN/P	419	70	Harwell ARS			
46	F4HRD	JO00XX	31	8,701	6,000	14,701	659	GI4SNA	667	40	Harwell ARS			
50	PE1EWR	JO11SL	27	9,130	5,000	14,130	628	GW0RHC	542	80	Harwell ARS			
58	F4HOG	JN09OJ	22	7,250	4,500	11,750	568	G4FZN/P	563	50	Harwell ARS			
79	G0BNC/P	IO91EU	36	3,455	5,000	8,455	409	GM3SEK	371	40	Harwell ARS			
103	G6LNU	IO91HO	18	1,674	3,000	4,674	227	GI4SNA	450	50	Harwell ARS			

432MHz UKAC 12/08/25

Open

Pos	Callsign	Loc	QSOS UBNs	Score	Bonus	Total	Norm	ODX	Kms	Power	Group	Ant show	Equipment show	Comments show
8	F1MKG	JN08KQ	45	18,104	6,000	24,104	631	G4HGI	589	200	Harwell ARS			
11	PA0WMX	JO21XI	25	12,833	5,000	17,833	473	GM4JTJ	809	400	Harwell ARS			
12	PE1EWR	JO11SL	32	9,729	5,500	15,229	421	GM4JTJ	698	55	Harwell ARS			

Restricted

Pos	Callsign	Loc	QSOS UBNs	Score	Bonus	Total	Norm	ODX	Kms	Power	Group	Ant show	Equipment show	Comments show
29	F4HRD	JO00XX	59	13,957	6,000	19,957	752	G4KUX	483	70	Harwell ARS			
41	MW0OMB	IO81HN	32	6,885	9,000	15,885	646	F5DYD	524	80	Harwell ARS			
47	F4VRB	IN98PT	30	9,522	5,000	14,522	592	G7LRQ	481	100	Harwell ARS			
58	F1CBC	JN09BO	24	6,029	5,000	11,029	495	G7LRQ	390	20	Harwell ARS			
70	F4HOG	JN09OJ	14	4,476	4,000	8,476	389	MW0LKX/P	458	50	Harwell ARS			
90	G6LNU	IO91HO	15	1,757	3,000	4,757	212	GI4SNA	450	50	Harwell ARS			
112	G4BRK	IO91HP	1	319	500	819	17	F4VRB	319	100	Harwell ARS			

Low Power

Pos	Callsign	Loc	QSOS UBNs	Score	Bonus	Total	Norm	ODX	Kms	Power	Group	Ant show	Equipment show	Comments show
12	PA0FEI	JO33BC	17	8,313	4,500	12,813	725	GM4JTJ	680	5	Harwell ARS			
22	G0BNC/P	IO91EU	30	2,645	4,000	6,645	475	F5RZC	284	10	Harwell ARS			

Overall UKAC Scores for 2025 so far

General Club Scores								
Pos	Club	50 MHz	70 MHz	144 MHz	432 MHz	1296 MHz	SHF	Total
1	Parallel Lines CG	1000	1000	1000	909	1000	1000	5909
2	Northern Fells CG	572	625	974	1000	683	333	4187
3	Harwell ARS	336	259	622	573	582	133	2505
4	Wirral & DARC	439	298	460	335	191	21	1744
5	Norfolk ARC	304	161	296	217	151	50	1179
6	Gower/Gwyr CC	231	199	309	285	153		1177
7	GMDX	89	77	277	202	51	6	702
8	Triple B ARCG	179	95	179	115	72		640
9	Burton upon Trent ARC	3		307	70	14		394
10	UK Microwave Group	63	55	34	34	23	177	386
11	Drowned Rats RG	44	33	108	113	69		367
12	Medway ARTS	82	3	87	47			219
13	Salop ARS	7		87	61	38		193
14	Mid Somerset ARC	72	32	7	10	22		143
15	Bittern DX Group	49		74	19			142
16	Bromley & DARS	12	45	41	35			133
17	Bishop's Stortford ARS	22	37	46	16			121
18	Flight Refuelling ARS	9	17	46	37	9		118
19	St Tybie ARS		3	6	1	49	49	108
20	Farnborough & DRS		17	30	3	11	14	75
21	Nunsfield House ARG	24	39	6				69
22	Ripon & DARS	6	8	25	26			65
23	Finningley ARS	6		57				63
24	Stratford-upon-Avon & DRS	6		47	4			57
25	Ayr ARG			44	10			54
26	Christchurch ARS			50				50
27	RSGB Contest Club	1		35	2			38
28	Addiscombe ARC	11	6	17				34
29	UK Six Metre Group	33						33
30	Halkyn Radio Group			5		23	2	30
31	Hilderstone AR&EC	27						27
32	Pennine Ham		6	15	2			23
32	Verulam ARC	5	8	9	1			23
34	Dragon ARC			12	9			21
35	Tiverton (SW) RC	20						20
35	London BBC RG			20				20
35	RNARS Fareham	20						20
38	G-QRP CLUB			1		11		12
39	Workington &DARC		2	4		5		11
40	Aberdeen ARS				9			9
41	Dundee ARC			8				8
41	Camb-Hams				8			8
41	Weekend CG				8			8
41	Reading & DARC	3		2	3			8
45	South Birmingham RS			4	3			7
46	Thurrock Acorns Amateur Radio Club				6			6

We remain in 3rd place overall in the General Club Scores of the UKACs with big gaps to 2nd and 4th so we unlikely to move! We have dropped down to 4th place on both 6m and 4m over the summer-maybe we can improve our standings on these bands as the Autumn draws in!

Overall UKAC results for Harwell ARS

24 Members

Call	50 MHz	70 MHz	144 MHz	432 MHz	1296 MHz	SHF	Total
G8CUL	70.6		56.5	64.5	82.3	74	348
M0UHF(/P)	63.9	65.1	66.1	17.5	55.1		268
MW0OMB	35.4	58.9	53.4	39	45.8	7.6	240
F4HRD	68.6		46.6	44.7	36.1		196
PE1EWR	37.6	31	57.9	21.5	29.1	7.7	185
F1BHL/P				49.3	102.2	29.7	181
G4BRK	9.3	19.5	36.7	43.3	46.5	5.2	161
F1MKG			39.1	44.7	53.5		137
G8DVK			40.5	48.1	39		128
F4HOG	11.2		46.3	38.7	14.6		111
PA0WMX			37.6	24.3	44.1		106
M0FXX(/P)	8.7	10.4	12.8	17.9	24.9	8.8	84
G8NVI	12.2	69.7					82
F1CBC			40.2	39.8			80
G0BNC(/P)	3.1	4.3	26.4	28.6			62
G6LNU	15.4		13.2	18.1			47
F4VRB			17.1	6	8.4		32
F4HNP			8.3	5.9			14
PA0FEI			1.2	11.7			13
G0GLG			5.6	3.2			9
G4HLX/P			8.2				8
F4IMK(/P)			7.4				7
G0MJW				5.7			6
G8NRP			1	0.8	0.5		2
Total	**336**	**259**	**622**	**573**	**582**	**133**	**2505**

The HARS' Contesting team has now been joined by Neill G4HLX/P who has taken advantage of the good weather to take to the hills!

If you are new to the club or amateur radio and would like to find out about contesting and how you can join in—please email secretary@g3pia.net who will be happy to guide you through the process. You do not need large aerials on a mast to join in (although that would obviously help). Verticals can be effective over the local area where there are many stations taking part in the contests

Other Contest Results
HF Contests

80m CC DATA - July
100W-Assisted Section
M5M (G4BRK) (Neil) - 10th

HARS came in 10th place overall in the General Clubs Section for the 2025 80m CC. Well done to those who took part!

VHF Contests

2m Low Power
Open Section
G4HLX/P (Neill) - 7th
Single Operator Fixed
G0GLG (Hamish) - 37th

70cm Low Power
Open Section
G4HLX/P (Neill) - 5th

HARS is in 5th place in the VHF Championship AFS Section after these 2 contests

Forthcoming Contests

September sees the start of the Autumn Series HF Contests.

Saturday 6th-Sunday 7th September
SSB Field Day (SSB) runs from 14:00-14:00 BST. Rules can be found here: https://www.rsgbcc.org/hf/rules/2025/rnfd.shtml

Saturday 6th-Sunday 7th September
2m Trophy Contest 14:00-14:00BST. There should be a lot of activity from both the UK and Europe. Rules can be found here: https://www.rsgbcc.org/cgi-bin/contest_rules.pl?year=2025&contest=144trophy

Sunday 7th September
5th 2m Backpackers Contest 1200-16:00 BST

4m AFS Contest 10:00-13:00. Rules to be found here: https://www.rsgbcc.org/cgi-bin/contest_rules.pl?year=2025&contest=2nd70MHz

This is the 1st of the AFS Super League 2025-2026 Contests. Last year we came a very close 2nd in the General Club Scores. Let's try and win it this year!!

CQ Worldwide SSB

This contest runs from 0000UTC Saturday to 2359 Sunday over the weekend of 25th-26th October 2025. https://cqww.com/

In the past small groups of HARS members have got together to take part (normally for a few hours) either at a hall or at someone's QTH. It has been decided that for 2025 we will use Chilton Village Hall for this weekend to try and give as many members as possible a chance to get involved with aerial erection, setting up the station, fighting the logging software and operating in this fascinating contest. No previous experience is necessary!

Chilton Village Hall has been booked from **9am on Saturday 25th October until 5pm on Sunday 26th October** with the aim of trying to operate for around 24 hours (midday to midday).

Chilton Village Hall offers us space for running multiple stations, the internet, space for erecting aerials, kitchen and other facilities, and ample parking. We hope to be able to join together in the evening for a takeaway of similar shared meal.

The October Club meeting (Thursday 2nd October) will be given over to discussing and organizing our entry for CQ Worldwide. So far these members have registered an interest in helping.

Hamish G0GLG
Clint M0OXF
Dave G8DVK
Angus G0UGO
Ann G8NVI
Mike G8CUL
Neill G4HLX
Mark 2E0XNT

It would be good to double the size of this team.

If you would like to come along, even if only for a couple of hours, help with aerial erection, operate, help with logging, make tea or simply to watch, please email **secretary@g3pia.net** to register your interest

RSGB Updates via Malcolm, G8NRP

Ofcom has released a new step-by-step video on its YouTube channel to assist radio amateurs in the process of revalidating a UK amateur radio licence using the online licensing portal. Ofcom does note that whilst it is a requirement to revalidate your licence every five years, it is recommended to do it annually. Make sure you keep your details up-to-date and make a diary reminder to renew each year. You can find the video by going to the licence revalidation page on our website where you will also find a helpful FAQ prepared by the Society on the topic: **Licence Revalidation - Radio Society of Great Britain -**

https://rsgb.org/main/operating/licensing-novs-visitors/uk-licensing/revalidation/

Malcolm Andrew, G8NRP
RSGB District Representative - Oxfordshire
Email: dr93@rsgb.org.uk

Forthcoming RCE Courses

Full details can be found on the Forthcoming Courses pages of the club website https://www.g3pia.net/forthcoming-courses.php

RCE Training takes place via Zoom and so is open to potential candidates from all over the world! The Training Team are small and dedicated, and very keen to increase their numbers during 2025. The powerpoint slides for the courses are all prepared and kept updated and you would not be required to undertake training in all subjects—just those that you feel comfortable with. We already have several candidates for both these forthcoming courses.

Could you give up some time to join the Training Team and encourage candidates through their Foundation and Intermediate courses? If you feel you could assist, please email John G6PEP training@g3pia.net who would be delighted to hear from you.

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.

(Roger ably runs the Friday evening skeds and Dave, G8DVK does the same for the Wednesday afternoon skeds, the latter using the club callsign, G3PIA, The skeds are frequented by a few club members, but if you're not one of them, why not make a effort to join in? You would be made very welcome - Ed)

EMF Calculations

As from 18 November 2022, all UK amateurs are required to have conducted EMF assessments for all the bands they use. The RSGB has issued a Trial Version 2 of its EMF Calculator App. This version removes the restriction on frequencies below 10MHz and the minimum separation of near field boundary. The app is being released as a trial version as the RSGB would welcome feedback from users. You can find the app and more information about the EMF work on the RSGB website at http:www.rsgb.org/emf

There is now a new EMF calculator which should produce sensible results right up into the UHF part of the spectrum. It can be found at ; http:www.rsgb.org/emf . It is always worth viewing that page for up to date information.

Malcolm, G8NRP
RSGB Rep for Oxfordshire

(We have heard of Amateurs being asked to submit their EMF calculations to Ofcom for scrutiny - so be prepared! - Ed)

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/Mode/month/callsign. When sending the information to me, please list ***all*** of the following information of the DX station. The entries are in date order -
Date, Callsign, band, mode, 6-figure Locator, distance.

Date	Callsign	DX	Band	Mode	Locator	Distance km
5/8/25	F4VRB	G4FZN/P	2m	SSB	IO94JF	604
12/8/25	F4VRB	G7LRQ	70cm	SSB	JO03BC	481
19/8/25	F4VRB	G4LPP	23cm	CW	JO02SS	468

Please remember that I only publish the longest distance per month/band/mode/callsign. When you send these to me please include all the details shown above including mode and locator (where possible).

Mike, G8CUL.

Angus, G0UGO passed this to me -
An article from the Weston Library on how radio changed the home.

https://visit.bodleian.ox.ac.uk/listenin

Also this from Malcolm, G8NRP

https://rsgb.org/main/blog/news/gb2rs/headlines/2025/02/21/2025-band-plans/

Tim, M0KEP recently posted this on the HARS groups.io -

A few of us have been talking about PureSignal on the HF nets recently. PureSignal is an option available on the Apache Anan SDR radios to clean up the transmitted signal. Icom have recently released a firmware update for the 7610 than adds the same feature under the name of Adaptive Pre-distortion. I've done a short video on this, demonstrating PureSignal on an Anan G2. I've included a link to it below for those are interested.

https://youtu.be/AMt9dyz0H68

Le Tatty Piece de Papier Award 2025

As in previous summers, Ann, F4VSO and I will be running a simple series of nets which have become known as “Le tatty piece de papier” award. These nets will be on a mixture of bands including 160m, 80m, 2m and 70cm. The callsign we will be using is F4VRB. The proposed schedule and the points scheme are shown below -

Date	Time (UTC)	Band/Frequency	Points awarded
25th August 25	19:00	80m, 3.710 ±	1
26th August 25	19:00	70cm, 432.270±	2
27th August 25	19:00	80m, 3.710 ±	1
28th August 25	19:00	80m, 3.710 ±	1
29th August 25	19.30 20.00	160m 1.846 ± 80m 3.710 ±	1 for each band. Normal Club Sked run by Roger G0AOZ
1st September 25	19:00	80m, 3.710 ±	1
2nd September 25	19:00- 22.30	2m, 144.270± (during 2m UKAC)	2
3rd September 25	19:00	80m, 3.710 ±	1
4th September 25	19:00- 22.30	80m, 3.710±	1
5th September 25	19.30 20.00	160m 1.846 ± 80m 3.710 ±	1 for each band. Normal Club Sked run by Roger G0AOZ

As usual, all participants will receive prizes with the overall winner receiving something a bit more than a packet of biscuits!

As I write this, we are half-way through the 2 weeks of the Tatty Piece de Papier awards for 2025. To say it has so far been difficult is putting it mildly! With hindsight, suggesting the use of 70cm on one evening (when there was no contest in progress) was perhaps not the best idea. Our receive noise floor at the Norman QTH is incredibly high such that we have S9 noise just about all round the compass rose, even with 20+dB of attenuation in the receive path We just managed to hear 2 club members both of whom were out portable. Suffice it to say we will not be using 70cm again for this activity!

I am very grateful to those members who went out portable that evening. There

were 3 of them (1 of whom we didn't even hear!), so you know who you are. I fully appreciated the effort involved in doing this during an evening.

Jeff, M0UHF commented -

"As Niel said, the QSB on 70cm was extremely severe. I really needed a longer over as this would have helped finding south as without any equipment was a bit of a struggle. Originally I didn't hear anything from you because I was pointing east so naturally I wouldn't hear you. After finding a Compass, in the panic of trying to be ready (not missing you) and spending an hour setting up, I managed to get a better idea where south was but with the QSB and your short overs it proved to be difficult. Both Ron and I had no rotators so had to use the Armstrong (Handraulic) method and hoping I could improve the direction when I did hear you. I was using my Kenwood TS2000x with at least 30w to a maximum of 50W. The aerial you will see in the photo which I supported with a pole on a tripod, connected to the roof rack. You were 5/9 at times. I did manage to get you stronger with louder audio by the end but then it was all over, often you disappeared completely into the ether. I could not work out if you were just not calling or whether it was QSB or even if there was a fault you were dealing with. There were a few other stations waiting to work you. Jamie, Ron, Dave to name but a few."

Jeff's picture

Both Ron, G0BNC and Neill, G4HLX were also out portable that evening, and while we just about heard Neill, there was no trace of Ron!

Ron's portable setup, on this occasion using 70cm

Although this was not taken during this year's Tatty event, it is the same operating environment, with the IC7300 on the left (HF, 4m and 6m, although not 4m in France for obvious reasons!) and the FT736R (6m, 2m, 70cm and 23cm with externals PAs for the higher 3 bands, all of about 120W capability.

73, Mike,
G8CUL/F4VRB.

CLASSIFIED ADS

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

For Sale:-

Yaesu FTDX3000 £750.
Yaesu FT450D £450.
Ameritron AL811 Linear P.A. £450
Yaesu FC902 Antenna Matching Unit £50.

All in working order but unused for some months.

Happy to haggle on prices.
Contact Jim M0IDC at jim.clark@gmx.co.uk.

Silent Key Sale:
Ten Tec Jupiter transceiver £400
KW E-Zee Match £50
KW 107 ATU £150
Kenwood AT-130 ATU £100
Icom IC-735 HF £200
Yaesu FT-780r 70cm £50
FT690R II 6m £30
FDK Multi 750 2m £50.
Azden PCS-5000 2m TX/RX £50
Racal RA-1217 £80
Datong Morse Tutor £20
Daiwa DK-210 keyer £15
Shure 444 classic microphone £25

All enquiries to Ken Taylor M1SLH, Abingdon. 07902 750543, or ktaylor54@gmail.com

Harwell Amateur Radio Society - Committee

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Vice-Chairman: Angus Wilson, G0UGO
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Treasurer/Corresponding Secretary : Ann Stevens, G8NVI

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John Booth, G6ZHB
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Neil Whiting, G4BRK
Clint Gouveia, M0OXF, Media Officer

Other, non-committee positions

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

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Contributions from all members are greatly welcomed. They may be submitted to **qav@g3pia.net**, The publication date is usually the 1st of the month, so please submit your contributions by ***1 week before*** that date.