

Chairman: Derek Gillett G3WAG • **Treasurer:** Rodney Archard M0JLA • **Secretary:** Duncan James M0OTG
Committee: Nigel Hancocks G4XTF; Dave Porter G4OYX; Bob Bowden G3IXZ; Matt Porter G8XYJ *Contest Captain*;
Richard Langford G4FAD; Mike Bush G3LZM; Tim Bridgland-Taylor G0JWJ; Geoff Wilkerson G8BPN

A Christmas Message

On behalf of the HARS Committee I would like to take this opportunity of wishing all our members a

**HAPPY CHRISTMAS and a
PROSPEROUS NEW YEAR**

It has been a very interesting amateur radio year for the club, many new members, embarking on the contest scene and the challenges of being in the low part of the 'Sun Spot Cycle'. I could make this message last for many pages but I will save that for the AGM.

I would personally like to thank you all for supporting the club, as without you it would not exist! So thank you very much! Furthermore, it has been fun, whether participating in the talks, general natter nights or just talking to each other about the DX that got away, it has been great.

The New Year will be interesting indeed and I look forward to seeing you all as we progress through 2018.

73/88

Derek G3WAG

Chairman: Hereford Amateur Radio Society

Editorial

Are you happy about being called a "ham"? We are grateful to Dan KB6NU, who discusses the confused history of the issue and endeavours to make us feel good about this nomenclature.

SNOWFLAKE. Read and learn how to recognise a snowflake radio amateur.

QSLs. Have you assessed the value in your QSL box lately? Read the latest appraisal, you might be caused to thumb through your collection with renewed appreciation.

Ed



How Valuable Is Your QSL Collection?

Do you know that QSL cards are much sought after by card and postcard collectors? Valuable cards fall into three main categories. The first and most expensive to purchase, are the early 1922 QSLs or thereabouts. In general pre-WW2 is the next watershed and finally pre 1965.

But, modern QSLs have value too. Recently a CB QSL was bought in the high street for £1.50. In the same manner, it is quite normal for a good-looking exotic QSL to fetch £20. The temptation by many is to burn their collection to make room, but stop!, do remember that charities will benefit from your card collection if you consider donating.

Ed

HAM? HAM radio? ham radio? Amateur Radio? amateur radio!

By Dan Romanchik, KB6NU

On the ARRL PR mailing list, we've been discussing the proper way to refer to amateur radio. What brought this up was an email from one list subscriber, Richard, WB6NAH, who was (rightfully) proud of the work that his club—the Skagit Amateur Radio Emergency Communications Club—was doing. He noted that they were even featured in the police department's emergency preparedness brochure:

The reference is made to "HAM radio" and "HAM radio operators."

Referring to amateur radio in this way just drives me crazy. "Ham radio" is just a nickname for amateur radio, and "HAM" is certainly not an acronym for anything. I congratulated Richard on getting his club included in the brochure, but noted, "...it's not HAM radio! It's either 'amateur radio' or 'ham radio' (ham is not an acronym). I hate to be nitpicky about this, but as a professional writer, this usage just drives me crazy." He replied, "I agree on Amateur Radio, that was the city's call."

That kicked off the discussion.

One ham replied to me privately, "Thank you... I am continually trying to explain that it is not an acronym or abbreviation."

Another replied to the list:

The most correct term is "amateur radio" or alternatively "ham radio", both written in normal case. If using "ham radio", it is a best practice to first write "amateur (ham) radio" in the first non-header/non-title occurrence.

Some will write "Amateur Radio" in proper noun format (first letters in caps) and while this may be acceptable to many and in certain venues, anyone using a style handbook will say it is incorrect. Less correct is to write "Ham Radio" in proper noun format as this is a slang term, albeit a popular one. Of course either term may be written as proper nouns when part of a title or name of an organization.

Least correct is to write "HAM" in all caps; as stated by others, ham is not an abbreviation or acronym. Writing it as "HAM" is completely

wrong, will drive many people bonkers, and should be avoided at all costs.

Ward, N0AX, offered this explanation:

To clarify where the capitalization originated, there is a long-standing ARRL Board Directive, decades old, stipulating that the words "Amateur Radio" be capitalized in ARRL publications and documents. Most non-amateur publications return it to the lower-case style that is used for non-proper nouns.

One guy got a little miffed that we were wasting our time discussing this at all:

You know, I've been reading this thread and I think people are getting too hung up on very minor details. So something wasn't spelled right or capitalized, so what? Let's not waste any more bandwidth on this.

I agreed that it was great that they were included in the brochure, and that we were probably beating this topic to death, but I don't think these are minor details. I said that PR professionals pride themselves on getting the details right. So should amateur radio PR people.

I'll give the final word to Dan, AI4GK. He wrote:

I don't think that standardizing what we call ourselves qualifies as getting hung up on minor details. If we don't have a standardized way of referring to us, how can we expect a public, who already is confused, to understand who we are?

I don't think that you can argue with this. Let's avoid confusion by using "amateur radio" when writing about our hobby/service. I'd even urge the ARRL to rethink their use of "Amateur Radio." Sometimes, it may be OK to use "ham radio," but it's just not correct to use "HAM radio" or just "HAM."

Dan, KB6NU, is the author of the "No Nonsense" amateur radio license study guides and blogs about amateur radio at KB6NU.Com. When he's not picking nits about the name of our hobby, he teaches ham radio classes and operates CW on the HF bands. You can email him at cwgeek@kb6nu.com.

Construction Ideas

A small 2M PA using the Motorola MHW612-025.

By Phill Sandell, G4HQB

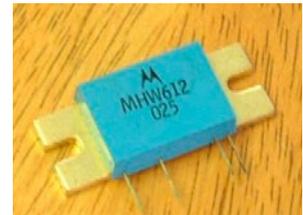
The circuit diagram (see overleaf) is a bit odd as the input is on the right. Just the way the module is made.

The data sheet gives the frequency range as 146 to 174MHz (for PMR I assume) but it operates just fine over 144 – 146MHz too. According to the datasheet a 12.5v supply gives a gain of 20dB and a maximum output power of 20W. There is a power set control. Mine gives 15W maximum on 2m, quite a handy increase on the FT817s normal 5Ws.

There are a couple of things that required some additions to the module on the final design. The maximum input power is 400mW so even my FT817 on its lowest power setting requires an input attenuator. The clever way to do this – and not to forget to set the output power of

the 817 to minimum – is to generate -4vdc somehow when the transmit button is pressed. If this -4v is applied to the ALC input on the 817 then the power is reduced without your having to think about it. Doubtless other FM transceivers have the ALC inputs, the handbook should say. I have not come up with a way of generating the required negative voltage but I am working on it.

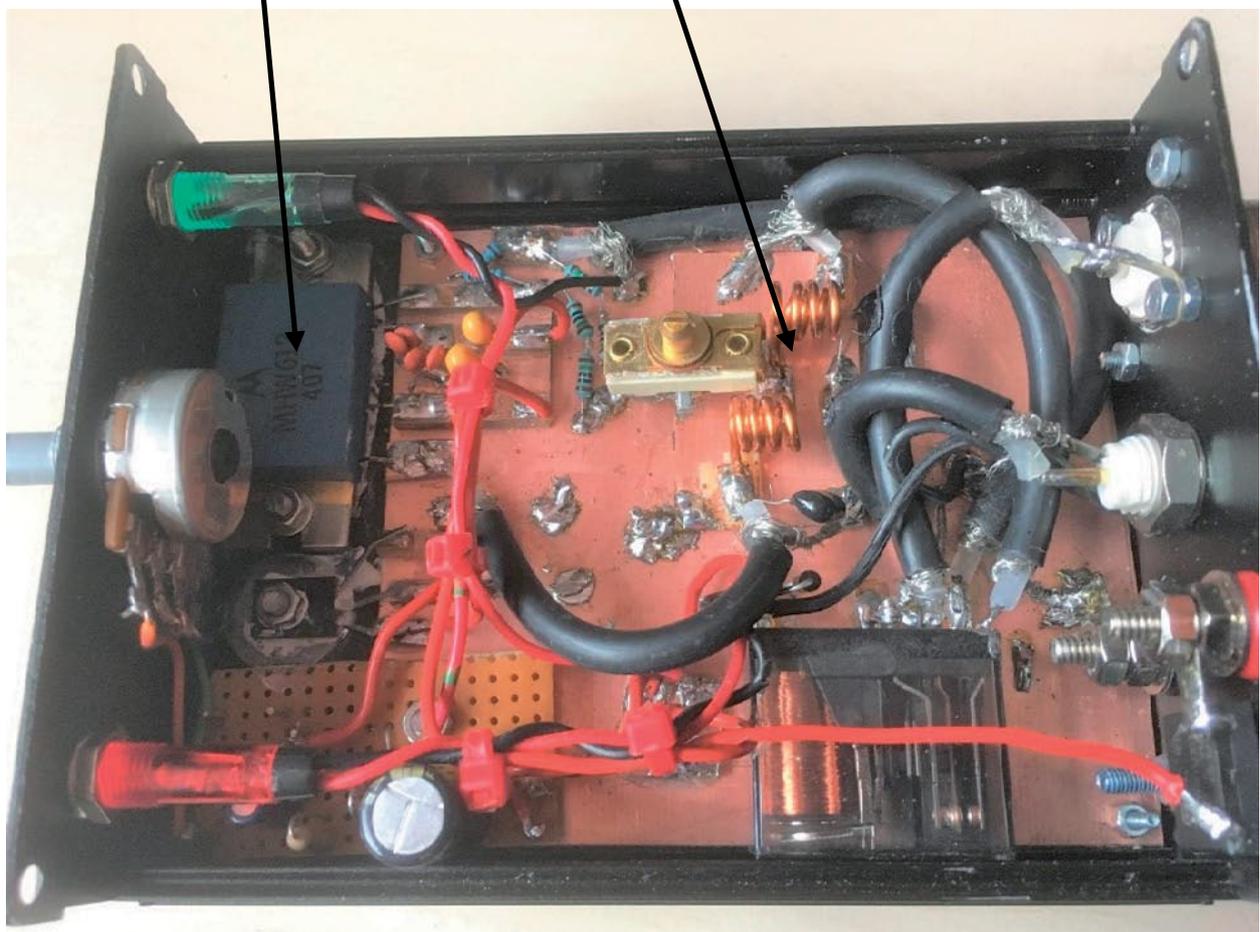
The other thing is that the data sheet gives the harmonic output at only 30dB down. To make sure nothing nasty escapes to the antenna there is a low pass filter stuck on the end. I could not find the capacitor values so the middle one

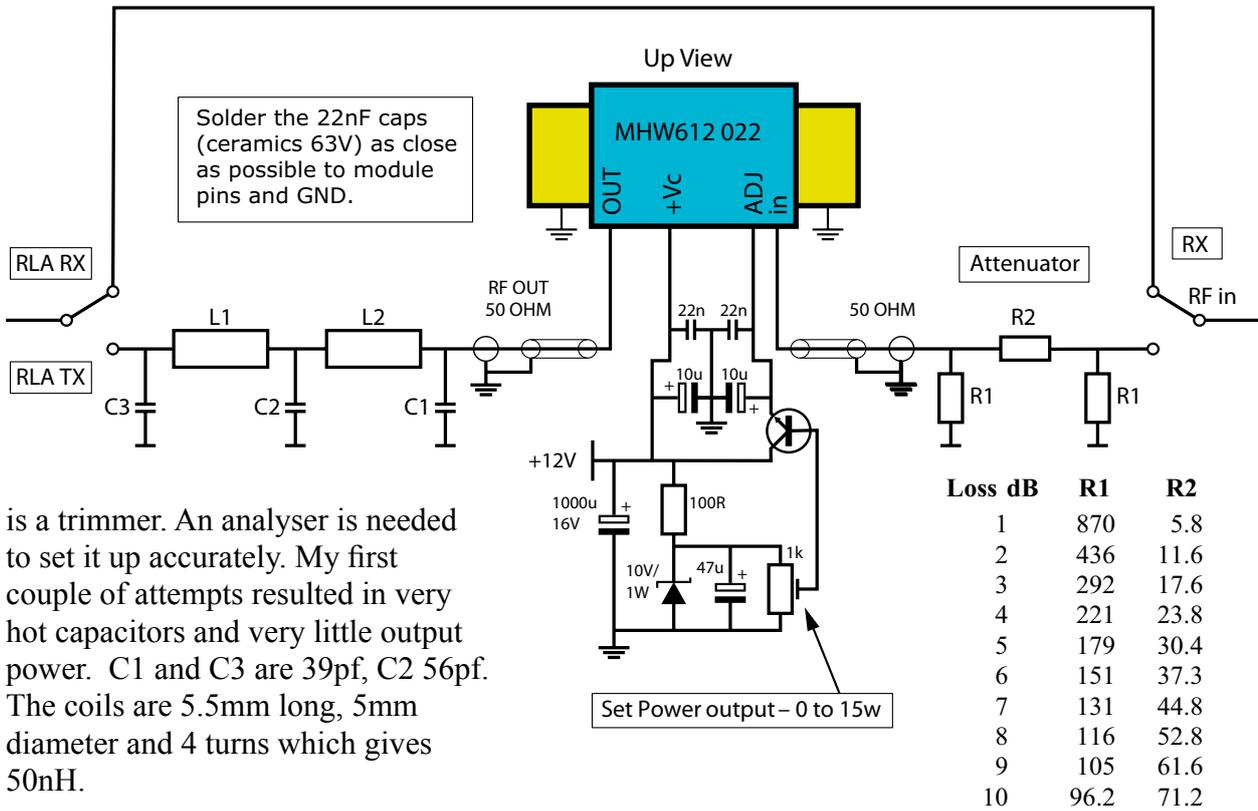


The Motorola module upon which this project is based.

Module

Output filter





is a trimmer. An analyser is needed to set it up accurately. My first couple of attempts resulted in very hot capacitors and very little output power. C1 and C3 are 39pf, C2 56pf. The coils are 5.5mm long, 5mm diameter and 4 turns which gives 50nH.

Mine was built into a small box with a heatsink bolted on the top. Not pretty but some sort of heatsink is needed even at 10w as the efficiency

is only 40% at best. The bits of solder on the board are from my early experiments with filters.

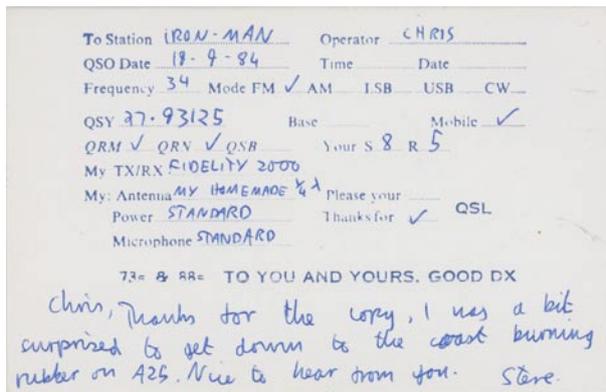
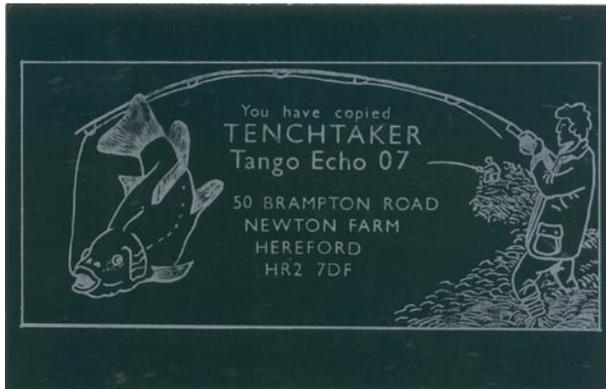
Note: the amplifier is available on Ebay for under £25.

Humour



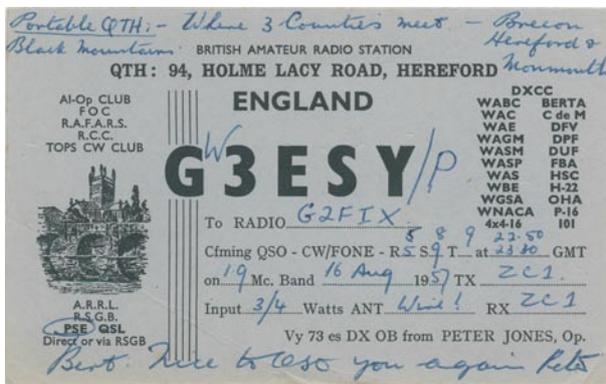
QSLs from yesteryear

33 years ago



Steve, G1YBB, fishing for contacts on CB!

60 years ago

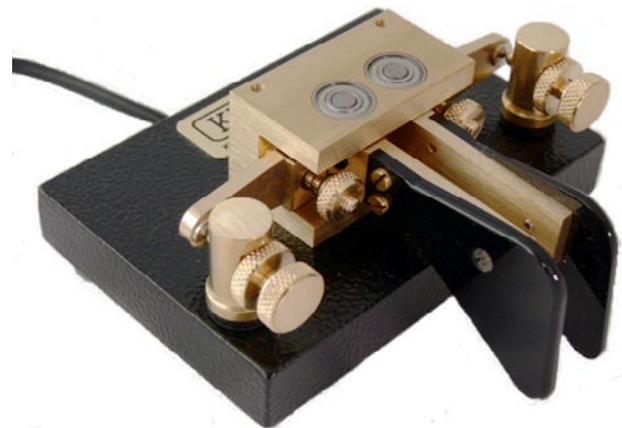


Peter, G3ESY, operating from a camp site where the counties of Hereford, Brecon and Monmouth meet.

I was there and provided the ZC1 ...Ed



Morse Key



KENT twin paddle Morse key

Snowflake Ham

A derogatory term for an overly sensitive or easily offended radio amateur, but one who believes that they are entitled to special treatment on account of their supposedly unique characteristics.



- Example, one who wants to extend one arm of his 80M dipole across his neighbour's beautifully landscaped garden but is too cautious about asking for permission.
- Example, one who needs to apply for planning permission for his three stage lattice "beam" tower but who is cautious about describing the application as being for a modest TV aerial in a supposedly low-signal area.

AA Batteries Comment

Without doubt, for me the most powerful 1.5V AA battery has the brand name "Energiser". My Roberts radio and earpiece combination is turned on at bedtime (R4) and is left on until morning when I awaken. This is the procedure night after night,...every night. The radio uses three AA cells. All types, including Duracell, have been tried; but the Energiser brand just goes on and on providing power.

Truly amazing! Ed



Ludlow Scout Group JOTA

Here are some photos of the Ludlow Scout Group taking part in their **Jamboree on the Air**, at Hill House.

HARS Club members Dave G4OYX, Phil G4HQB, Matt G8XYJ, Ben M6KSX and Geoff G8BPN all helped with the scouts!

40m SSB was catered for with the Icom 718 at 100 watts with contacts all over the UK and PA.

2m FM was very successful with a Yaesu 857 and Geoff's Colinear.



*Don't forget to send in
your best DX successes!*

editor@harsjournal.com

Just another log book?

by Bob Bowden G3IXZ

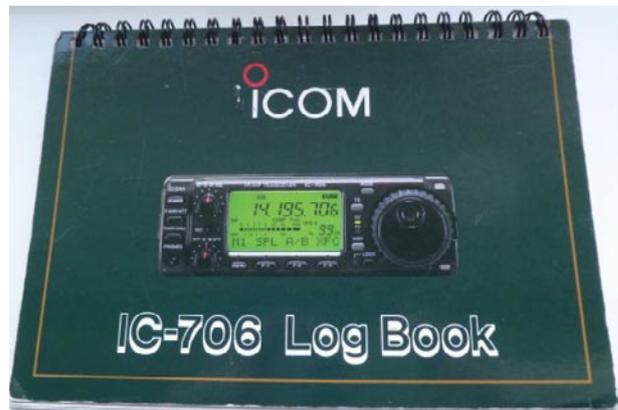
Last Week I got to the last page of my Icom log book. It has 78 pages and can accommodate 15 QSOs on each page so it has about 1300 contacts logged within. I acquired this rather posh A5 format booklet when I purchased an ICOM 7400 back in 1997. It was designed to go with the IC-706 at the time and had nice hard covers which leant it to the rugged life of /P operation – for this is what I decided I would use it for.

My initial operation was from the Canary Islands as EA8/G3IXZ/P – from the island of Lanzarote. I pledged to myself that I would never use more than 5 watts for QSOs logged in this book and since my main rigs would be a FT817 and a small homebrew CW rig called the “Malta” (providing 3 or 4 watts) this looked no hardship to stick to. Using mainly a W3EDP (75ft long wire) or occasionally a 20M dipole, I started operations in late 1997.

Lanzarote is quite close to the northern tropic and conditions for HF signal routing across the equator are usually good. I only spent a short time on the air each day as we were there to enjoy the sun, but I was surprised how well I could do with stations in the southern hemisphere and, of course, back to the north into Europe – where there was a lot of traffic on the air most days. Getting into G-land with 3-5 watts was not easy and it is surprising how many people do not listen for weak signals, even on the QRP calling frequencies.

I worked GM3OXX several times and he is a master of weak signal detection and QRP working. His power on most of the contacts was 1 (one) watt and he has a knack of reading the conditions and searching accordingly. No wonder he has worked hundreds of DXCC entities with QRP. My operation in the UK was from a number of locations where we enjoyed holidays and ranged from Buckley and Denbigh in N.Wales as GW3IXZ/P, to Buxton in Derbyshire and Sydling St Nicholas in Dorset. More recently operation has been from Aberdovey in West Wales.

I have had a lot of fun and some special contacts. Of particular memory was VK5GZ



in Adelaide and FY/DJ0PJ who was working at the ESA space centre at Korou in French Guiana and only running 4Watts himself. I caught many islands – though not working IOTA in those days. Places like Ascension Island and St Helena as well as several rare prefixes in the Carribean like PJ5, J75, FM, ZF, VP5 an VP9. With QRP cw the world is available if you are patient and listen,listen,listen!

So, what do I get from yet another logbook filled? I have filled 5 or 6 full size “standard” log books in my very long time on the air, but this one is special because I know it was hard going yet I proved that with 5 watts you can do a lot if you really persevere.

After a careful check I have been astonished to find I have worked 118 DXCC countries in the 20 years since I started using the log book.

Conclusion? Try QRP and Keep a log. It’s fun to look at the entries later and remember the QSOs and the places you were at the time. Happy hunting!!

73
Bob G3IXZ

Thanks Bob ...Ed



Two Attractive New Licenses

Adrian G8IVO sends in two glorious pictures of his wife-to-be (Wendy) and her daughter Tara. Both have recently become licensed and have the callsigns M6KYQ and M6KYU respectively.

Well done both ...Ed.



Wendy M6KYQ.



Tara M6KYU, Wendy's daughter.

Wendy M6KYQ writes that there has been many changes in my life over the last few years not least of which is my semi-retirement. This has given me the time to explore things that interest me. I experiment with baking, growing flowers and veg and using our radio equipment to listen to commercial, amateur and broadcast transmissions. More recently I have been helping take part in UK Activity Contests. This has spurred me on to want to actually want to take part, hence the shiny new licence M6KYQ..

Equipment For Sale

Experience shows that selling equipment through the HARS network usually brings about a satisfactory conclusion. If you have equipment for sale, why not give it a try? You can submit to the Hon Sec via duncanjames1066@btinternet.com for a speedy resolution.

HARS radio equipment available for loan to Club members

The following list of equipment is available for loan to Club members. The loan period is 3 months and members wishing to use the equipment will have to sign a simple agreement which covers the loan terms. If you wish to borrow then please contact Duncan (Hon Sec) M00TG.

- Grid Dip Meter MFJ-201
- Buddipole 10-40M portable antenna with tripod and carrying case.
- Yaesu FT450 All bands to 50MHz. Needs a 12V PSU
- Pixie 7MHz QRP kit. Needs assembling.
- Baofeng UV-5R 70cms/144MHz hand-held complete with accessories.

Go portable with the Buddipole! Ed.



The 2017 RSGB Convention

Editor Don Field G3XTT reports on the RSGB's annual Convention.

The Kents Hill Conference Centre in Milton Keynes was once again the venue for the RSGB Convention.

Attendance was up again, well over the 600 mark with visitors from as far afield as Japan, South Africa and the USA. For the first time, AMSAT-UK held their Colloquium as part of the wider Convention, which appears to have proved successful, with many attendees dropping in on one or more of the satellite lectures to get perhaps their first taste of this aspect of our hobby.

The event, as always, was sponsored by Martin Lynch & Sons while Icom and Kenwood had displays of their main products. The RSGB had their usual bookstall and a number of national clubs such as CDXC, AMSAT-UK, BATC, UKSMG, RAIBC, the Radio Officers Association and the UK Microwave Group had displays, along with representation from the RSGB ARDF (Direction Finding) and Contest Committees. **Martin G3ZAY** was running a Morse pile-up competition.



Steve G1YBB receives the PW QRP Contest Trophy from PW editor Don G3XTT.

were rubbish", most found them of a generally very high standard. Indeed, with

the Raspberry Pi and the many uses it can have in our shacks. It certainly gave me



PW QRP Contest Trophy

One pleasant duty I was able to organise for the Convention was to present our contest trophy to **Steve Clements G1YBB** on behalf of the Hereford VHF Contest Group GW1YBB/P, overall winners of this year's PW 144MHz QRP Contest. Steve was there to collect some RSGB contest trophies on behalf of the group too. They are obviously an enthusiastic and dedicated bunch.

Well done Steve ...Ed

Merry Christmas and a Happy New Year to everyone

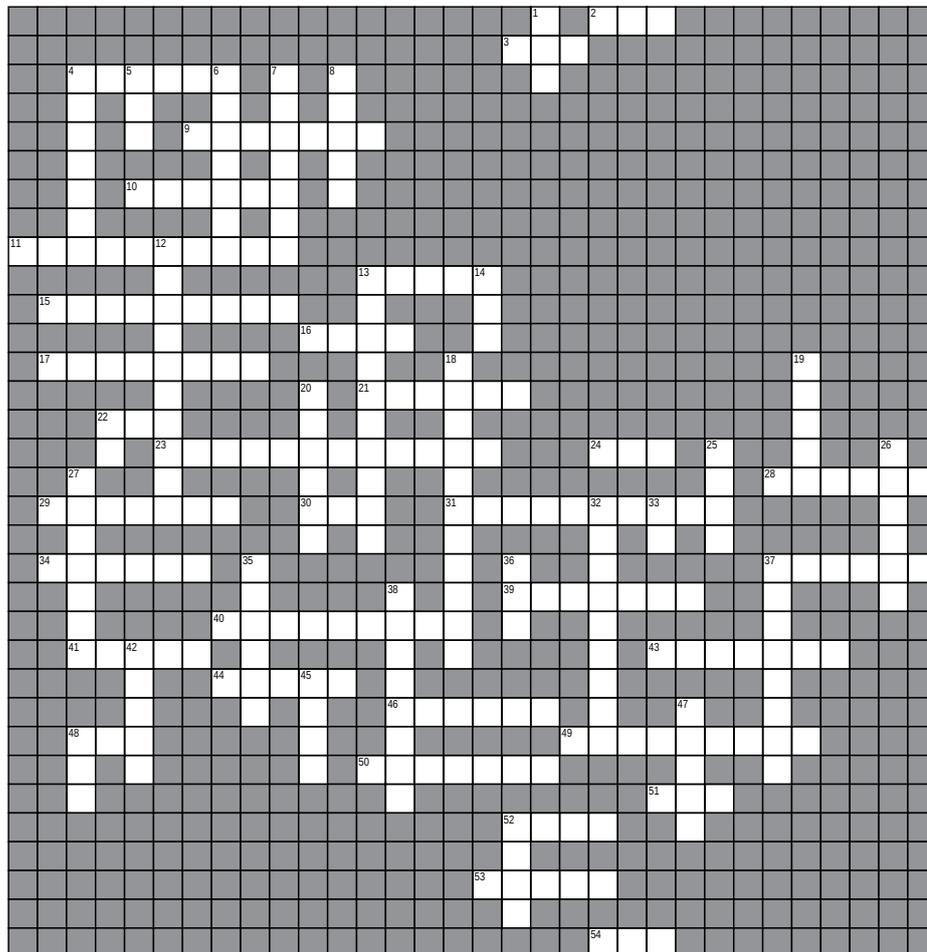
from Mike G3LZM (*Ed*)

Crossword

by Jeff , KA0UPA

Across

- 2 An acronym. Occurs when an antenna is not matched to the transmitters.
- 3 An acronym. A thousand-million cycles per second.
- 4 A popular, easy to build antenna. May be horizontal or in a V-shape.
- 9 What V.E.'s or Volunteer Examiners do.
- 10 Current that only flows in one direction. All batteries produce this kind of current.
- 11 A tool used to measure ohms, volts, amperes and sometimes other things.
- 13 Used to extend an antenna's clearance above ground 'clutter' or obstructions. Usually permanent.
- 15 This component holds a temporary charge. Large values are polarity sensitive.
- 16 Cable consisting of a copper, center core and a silver outer conductive braid.
- 17 A popular multicolor LED consisting of three colors. Often RGB.
- 21 Must be mindful of this when working with or around high voltages or frequency.
- 22 An element of morse code. Three times the length of a Dih (Dit or a dot.)
- 23 Equipment used to display analog or digital signals in and X-Y graph like form. The X is time and Y is amplitude.
- 24 An acronym. A Q-code representing your operating location.
- 28 Connect batteries this way to increase voltage.
- 29 Hams often spend weekends away from their wives in pursuit of this.
- 30 An acronym. A form of communication using the moon as a satellite.
- 31 Refers to either a rule. Or, the ability to maintain a constant voltage or current level.
- 34 A battery of this component may hold it.
- 37 Operators using Amateur or Commercial frequencies without proper FCC licensing.
- 39 A popular vintage brand name of Amateur Radio equipment. Often fetching a pretty penny.
- 40 An instrument used to measure power.
- 41 The highest class Amateur Radio privilege class.



- 43 A voluntary Amateur Radio organization used to report weather conditions to the National Weather Service.
- 44 A kind of battery charged by the sun.
- 46 Used to send morse code with horizontal movements of the hand/wrist.
- 48 An acronym. Used to acknowledge receipt or understanding of a message.
- 49 A rig capable of operating three modes.
- 50 A popular brand name for Amateur Radio equipment. Not made however, of wood.
- 51 An acronym. An efficient form of communication in HF Radio.
- 52 When wire is wound this way, it's referred to as such.
- 53 May be electromagnetic or magnetic. In magnets, it may be North or South in polarity. In radio, it may fluxuate.
- 54 An amateur radio field sport. Called ___ hunting.

Down

- 1 An acronym. Million of cycles per second.
- 4 This form of communications consisting of 1's and 0's.
- 5 Short name for a potentiometer or variable resistor.

- 6 A piece of an antenna as part of an array .
- 7 Used to swivel an antenna nearly 180 degrees in either direction.
- 8 Watch out for these when erecting antennas.
- 12 Converts sound into minute amounts of voltage.
- 13 An electronic component that can act either as a switch or an amplifier.
- 14 An acronym. Represents a form of interference.
- 18 Batteries hate this when it gets too low, electronics hates it when it gets too high.
- 19 Used to represent a repeating occurrence of something.
- 20 Removes an undesired frequency or level from a signal.
- 22 An acronym. Represents long distance communication.
- 25 A rather unreliable method of charging batteries.
- 26 Stations operated without the physical presence of an operator.
- 27 A name for a kind of early crystal radio used in the field by soldiers or covertly in prison.
- 32 Takes a small signal and increases it's level. Hopefully, without distortion.

- 33 An acronym. To represent microelectronic components. Package typically black with several L-shaped legs.
- 35 Sound signal for example, originate this way before they are encoded. Represents varying levels of voltage or current.
- 36 The Federal Agency that issues the rules and regulations by which hams must abide.
- 37 Connect batteries this way to increase current.
- 38 A tools use to remove the insulation on a wire.
- 42 The 'true' father of Radio i.e. *not* Marconi. A coil is named after him and he is the father of our A.C. power system.
- 45 An acronym. Represents the interests of Amateur Radio Operators.
- 47 Another foreign brand name of Amateur Radio Equipment.
- 48 Q-code used to broadcast to all amateurs. Also, the name of a popular Ham magazine.
- 52 Used to temporarily connect a wire to a conducting surface.

For the answers,
please contact
editor@harsjournal.com.

Contest Corner

My apologies for missing the last edition, I was sunning myself on the beach and drinking beer in EA8 land! And missing 70MHz UKAC!!

A lot has been going on in the UKACs for HARS! Not only have we now overtaken Sheffield on 144MHz we have continued to pull away from them and now have a good lead! This is mostly down to several members rekindling past contest interests and swelling our scores. This is the most hotly contested VHF band too!

October also saw us overtake Sheffield on 50MHz! It's very close with only 200 points lead so we need to do well in November!

October also saw us win 70MHz to inch a little closer to 1st place. More HARS members are getting on this band which is great.

After winning 70cms in Aug and Sept we were pipped by 94 points in October. 94!! So close. Shows that all scores however small you think they might be are important and valuable. Literally "every little helps".

On 1296MHz we were 2nd in July, Sept and Oct which has helped us get close to 2nd overall.

SHF Dave, Matt & Alan continue to lead the way on 2 SHF bands but this is our weakest section.

It's in our grasp to win two bands and be close on a 3rd in the club's first UKAC year which is amazing as we played catch up all year!

Hereford is very much on the VHF contest map!

73 Steve G1YBB.

Upcoming Contests:		
144MHz UKAC	07-Nov-17	2000-2230 (UTC)
50MHz UKAC	09-Nov-17	2000-2230 (UTC)
432MHz UKAC	14-Nov-17	2000-2230 (UTC)
70MHz UKAC	16-Nov-17	2000-2230 (UTC)
1.3GHz UKAC	21-Nov-17	2000-2230 (UTC)
144MHz UKAC	05-Dec-17	2000-2230 (UTC)
432MHz UKAC	12-Dec-17	2000-2230 (UTC)
50MHz UKAC	14-Dec-17	2000-2230 (UTC)
1.3GHz UKAC	19-Dec-17	2000-2230 (UTC)
70MHz UKAC	21-Dec-17	2000-2230 (UTC)

RSGB UKAC Overall Local Club Standings 2017								
	Club (35 clubs total)	50MHz	70MHz	144MHz	432MHz	1.3GHz	SHF	Total
1	Sheffield & DWS	996	1000	871	1000	1000	721	5588
2	Hereford ARS	1000	715	1000	912	388	241	4256
3	Bolton Wireless Club	404	306	508	542	467	1000	3227
4	Worksop ARS	615	664	657	744	315		2995
5	Trowbridge & DARC	217	212	497	331	155	720	2132
6	RAF Waddington ARC	463	341	331	370	263	20	1788
7	Parallel Lines CG	167	188	107	139	153	392	1146
8	Coulsdon ATS	232	210	180	225	155		1002
9	Southport & DARC	198	178	228	172	114	68	958
10	Cheltenham ARA	117	6	83	87	141	505	939

Club Band Standings (top 10 shown)										
	50MHz (28 clubs)		70MHz (26 clubs)		144MHz (33 clubs)		432MHz (31 clubs)		1.3GHz (24 clubs)	
1	Hereford ARS	58329	Sheffield & DWS	42475	Hereford ARS	74548	Sheffield & DWS	57536	Sheffield & DWS	45827
2	Sheffield & DWS	58117	Hereford ARS	30388	Sheffield & DWS	64919	Hereford ARS	52454	Bolton Wireless Club	21408
3	Worksop ARS	35875	Worksop ARS	28191	Worksop ARS	48985	Worksop ARS	42833	Hereford ARS	17769
4	RAF Waddington ARC	27029	RAF Waddington ARC	14478	Bolton Wireless Club	37839	Bolton Wireless Club	31157	Worksop ARS	14454
5	Bolton Wireless Club	23543	Bolton Wireless Club	13003	Trowbridge & DARC	37019	RAF Waddington ARC	21285	RAF Waddington ARC	12032
6	Coulsdon ATS	13505	Trowbridge & DARC	9010	Triple B ARCG	25458	Trowbridge & DARC	19072	Martlesham RS	10000
7	Trowbridge & DARC	12652	Coulsdon ATS	8924	RAF Waddington ARC	24650	Vecta CG	15847	Colchester RA	8492
8	Southport & DARC	11550	Parallel Lines CG	7989	Vecta CG	23375	Coulsdon ATS	12949	Northampton RC	7185
9	West Kent ARS	9791	Southport & DARC	7545	Southport & DARC	16980	Itchen Valley ARC	10770	Coulsdon ATS	7124
10	Parallel Lines CG	9765	Telford & DARS	6923	West Kent ARS	15155	Southport & DARC	9916	Trowbridge & DARC	7091

Thanks Steve ...Ed



Club Personalised Merchandise

For availability and prices contact Mike G3LZM (editor@harsjournal.com).



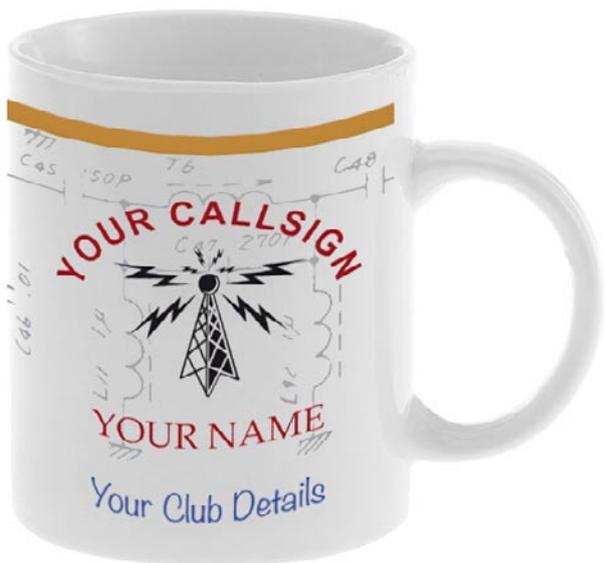
T Shirt

The printed T shirt has your callsign on the front plus your club details.



Cap

The printed cap has your callsign on the front plus your club details.



Mug

This is available printed front and back with your callsign and club detail.

An exotic China version is available.

Articles Wanted!

Please think about submissions/projects you might like to send in or see.

General topics and key words are listed below.

Members projects	Events	Training
Members station	Notices	QRP/QRO
Construction	Help	Illustrations
Items wanted	News	Photographs
Items for sale	DX	Early radio
Hints and kinks	Militaria	Restoration...

... or anything else that you think might be of interest to HARS members. If you have an idea for a submission, but don't know how to present it, feel free to ask for advice.

Please submit anything and everything to editor@harsjournal.com or talk with Mike at the Club meetings.

*73s es GDX, G3LZM
Mike Bush (Editor)*