

STARLITE

THE JOURNAL FOR THE STOURBRIDGE AND DISTRICT A.R.S.



**G6OI
G6SRS**



ISSUE: APRIL 2022



G4CVH

**STOURBRIDGE & DISTRICT AMATEUR RADIO SOCIETY
INCORPORATING
OLDSWINFORD HOSPITAL SCHOOL RADIO CLUB**

MEETINGS NORMALLY HELD AT

**OLDSWINFORD HOSPITAL SCHOOL
HEATH LANE
STOURBRIDGE
[8:00 TO 10:00 PM]**

VISITORS ALWAYS WELCOME

**DURING COVID, THE SOCIETY HOLDS ITS MEETINGS
EVERY MONDAY AT NORTON SOCIAL CLUB,
OSMASTON ROAD, STOURBRIDGE**

THE LARGE ISSUE

RSGB AFFILIATED SOCIETY

STARLITE

Telephone Enquiries to:-

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John Clarke M1EJG
[01562] 700513

Or by Email to:-

honsec@g6oi.org.uk
johnclarke.m1ejg@btinternet.com

All correspondence/enquiries should be addressed to the Hon Secretary at:-

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c/o The Mill House
21 Mill Lane
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Kidderminster
DY10 3ND

StARS Website URLs:-

www.g6oi.org.uk

StARS Facebook Page:-

<https://www.facebook.com/groups/stourbridge.ars/>

Forthcoming Meetings

April 4 th	Club Meeting at Norton Social Club. 8pm
April 11 th	Club Meeting at Norton Social Club. 8pm
April 18 th	Club Meeting at Norton Social Club. 8pm
April 25 th	Club Meeting at Norton Social Club. 8pm
May 2 nd	Club Meeting at Norton Social Club. 8pm
May 9 th	Club Meeting at Norton Social Club. 8pm
May 16 th	Club Meeting at Norton Social Club. 8pm
May 23 rd	Club Meeting at Norton Social Club. 8pm
May 30 th	Club Meeting at Norton Social Club. 8pm
June 6 th	Club Meeting at Norton Social Club. 8pm
June 13 th	Club Meeting at Norton Social Club. 8pm
June 20 th	Club Meeting at Norton Social Club. 8pm
June 27 th	Club Meeting at Norton Social Club. 8pm
July 4 th	Club Meeting at Norton Social Club. 8pm

Editor's Comment

[Editor: g4xom@g6oi.org.uk]

I had planned to attend the Annual General Meeting, this year, but was unable to do so. I knew the date, but was not notified of the location or agenda for the AGM, neither did I receive the minutes of the previous AGM (2019) or the fact that attendance could be made via Zoom. I hope I'm mistaken, but I suspect I'm not the only one in this position. Being a fully paid-up member, I don't think it is unreasonable to ask that **ALL MEMBERS** should be informed or notified of anything to do with **THEIR** Society, instead of feeling ostracised for not attending the meetings. Perhaps a member of the Committee would care to comment on this situation, which will be reported in a forthcoming issue of Starlite.

For the record, my contact email is correct in the StARS membership list, on QRZ.com and in every issue of Starlite – just look at the top of this page!

Geoff G0KVK let me know that the AGM was attended by 7 members at Nick's shop and 3 on Zoom. The Committee was re-elected en masse, with only Mark M0TCG stepping down due to other commitments.

Whilst looking through the March issue of RadCom, I was surprised to see that Brian Kennedy G3ZUL was shown as a Silent Key (on 17.10.2021). Older members will remember that Brian was on the staff at OSH until he left the area. He was, also, a StARS Committee member and [I think] past President. R.I.P.

In this issue, besides the news items I've sourced, we have some articles, which (I hope) may be of interest:

M6AHW – More Antenna Work [Thanks Tony. Ed.]
Foundations Of Amateur Radio
The Lighter Side Of Radio
Make Amateur Radio Nets More Fun

Here is a link to an item sent by Jim G4WAO. It's a fairly comprehensive article and Jim says "*Thought this might be of interest to our antenna building members. it's pretty well described by G4HSK on how he built it.*"

LDF 5-50 Mag loop

Here's an interesting antenna in lieu of attending in person!

<https://radio.g4hsk.co.uk/2015/06/03/ldf5-50-based-magnetic-loop-antenna/>

Might be a good club project? Could be interesting for field days.

M6AHW – MORE ANTENNA WORK

I have sorted out my portable antennas, ready to get out and about when the leg is working properly after the knee op.

I have cut down a 70cms 12-element folded dipole into a 5-element to make it more portable. I am very pleased with the results. It will open GB3CB in Birmingham on 2 watts!



I have, also, rebuilt the 2 meter Quad with all new hardware. As you can see, all the tests were done using the Tilly and not using much mast height, so up on high ground everything should work well.



On the StARS Facebook page, there were a couple of photos of me working portable at the 2021 BBQ at the Sheepwalks using HF with some of my other portable equipment. They are reproduced here.



73 to all. Tony M6AHW

Foundations of Amateur Radio

Being an equipment custodian

A couple of weeks ago an amateur put out a call on the local email discussion list. The message was simple, it read: "I have a 606A HP Signal Generator with a copy of the Operating and Service Manual. It covers 50 kHz to 65 MHz. Free to a good home :-)"

It's not the first time that such a message has done the rounds, but this time my reply was quick enough for it to be first. Overnight I became the new custodian of a Hewlett Packard 606A Signal Generator.

A signal generator is a tool that can form a specific carrier across a range of frequencies in much the same way that your amateur radio can. In this case, the HP-606A can cover all the amateur HF bands and everything in between. The signal that's generated is calibrated, that is, it's of a specific power level, very stable, clean and it can be used to calibrate other equipment.

To set the scene, the HP-606A was released into the wild in 1959. You might call it vintage at this point. It's the size of a modern microwave oven, so I'll need to set aside some bench space in order to actually use it. According to some it's "the best analogue signal generator ever built". It's been in production for decades, with plenty of information to be found online.

Unlike most modern gear, this equipment comes fully documented by the manufacturer, to the point of user manual revisions depending on the serial number and including essentials like circuit diagrams, parts list, spare parts list, calibration instructions and the equipment needed, how to open it up, tests to conduct after repair, how to conduct regular maintenance and how to replace the tubes in it.

Yes, I did say tubes, or valves, or glow in the dark electronics.

At this point I've not yet switched it on. You might wonder why that's the case. This unit has internal voltages exceeding 500 Volt DC, so some care is required. Inside are at least four electrolytic capacitors. Think of each of them as two pieces of aluminium sandwiched together, separated by a piece of foil and electrolytic paste, all rolled up into a cylinder.

When an electrolytic capacitor is built, the process to convert these components into an actual capacitor involves forming it, which means that the manufacturer applies a specific voltage to the pins of the capacitor and in doing so, causes a chemical reaction which makes all manner of funky stuff happen, including unidirectional conductance, something you're looking for in a capacitor.

Over time, when not in use, or in my case, in storage, this chemical reaction reverses and the capacitors are back to rolled up aluminium with some foil in between. Powering it up in this state will let the smoke out.

It turns out that in many cases you can apply the voltage again and reform the capacitor. Apparently, according to the author of Tu-Be Or Not Tu-Be Modification Manual by H.I. Eisenson, applying the voltage for five minutes plus one minute per month of storage does the trick. In my case, I can leave the capacitors in circuit and apply the voltage externally using a Variac, a Variable AC Transformer, loaned to me by Denis VK6AKR.

Doing the math is a little tricky, since we don't really know when the unit was last powered up, but we're told that it was some time in the last decade, so a couple of hours should suffice, but there are some wrinkles in relation to voltage and managing the step to

powering up the tubes, so when I've made it happen, I'll let you know.

Denis was kind enough to help with opening up the cabinet and having a look-see inside. We noticed that it has previously been expertly repaired with a few replaced components and Denis managed to identify some likely failed tubes, so we're on the scrounge for those. Together we did some initial tests and ran up the unit using low voltage to determine if the various test points were actually showing the proportional voltages that were expected. This isn't like a digital circuit where it either works or not, using a Variac, you can slowly power this up, to a point, and test along the way.

This brings us to the provenance of this tool.

I got it from Dave VK6AI and from discussion, we think it came from the estate of Don VK6HK, now silent key. I've met Don's widow who happens to be the neighbour of a friend, so at some point when I have it working I might give her a call. I don't know who owned it before Don. I do know that when it was released, in 1959, it was sold for \$1540 US Dollars, the equivalent of \$14,000 in today's money, or half a car back then.

Based on serial numbers, this HP-606A appears to have been manufactured between October 1961 and August 1966, so it's older than I am. In case you have extra information, the serial number is 009-01180 and my email address is cq@vk6flab.com. If you have spare valves, a 12B4A is high on the list, get in touch.

While Denis and I were exploring inside the guts of this function generator, we were at the clubhouse of the local WA VHF Group, surrounded by other amateurs who were doing their own thing. At one point I looked up and noticed two amateurs in deep discussion about using a piece of software, CHIRP, to program a handheld radio on a Windows 10 laptop, whilst I was sitting across the table, picking through the guts of a 1960's piece of equipment. It made me smile, thinking about the history that those two extremes represented.

Becoming the custodian for such a significant piece of equipment isn't for everyone. I've been given suggestions to toss it out and buy something modern, but I have to confess, even though I'm software personified, SDR to the core, well, aiming to be, this piece of equipment does something for me.

What equipment do you own that makes you go all misty eyed?

I'm Onno VK6FLAB

Queen's Platinum Jubilee

The RSGB is offering a wide variety of amateur radio activities to celebrate the Queen's Platinum Jubilee.

From special event stations to an innovation competition, a radio tournament and an operating award, the Society hopes there is something for everyone.

You can read an outline of each of the activities now and further details will follow shortly.

Take a look at the April issue of *RadCom* or the Society's website at www.rsgb.org/jubilee

Ofcom: Enabling spectrum sharing in the upper 6 GHz band

Ofcom has published a consultation proposing to add the upper 6 GHz band (6425-7070 MHz) to our shared access licence framework for low-power, indoor use

The framework enables shared use of spectrum, making it easier for people and businesses to access it for a wide range of local wireless applications.

In the case of the 6 GHz band, we believe such licences could be particularly suitable for industrial, business and research uses.

Under our proposals, licences would cover the full band for an area within a 50m radius of a central point, and use would be limited to indoor-only, with a maximum power limit of 250mW EIRP.

Potential users could apply for multiple licences to cover a larger indoor area – such applications would be considered on a case-by-case basis. Each licence would be subject to an annual fee of £320 and would be for an indefinite term, with Ofcom reserving the right to revoke licences for spectrum management purposes.

The use of the upper 6 GHz band for licence-exempt consumer Wi-Fi or for licensed 5G mobile networks is out of scope of this consultation, as technical compatibility work is still ongoing to establish whether and how these technologies could share the band with each other or other services. This proposal will not diminish our ability to authorise either of these in the future, if we decide to do so.

This consultation will be open until 11 April 2022. We intend to reach a final decision later in 2022.

Consultation page

<https://www.ofcom.org.uk/consultations-and-statements/category-2/spectrum-sharing-upper-6-ghz-band>

Ofcom release Special Event callsign Nov spreadsheet

In response to a Freedom of Information request Ofcom have released a spreadsheet of Amateur Radio special event station (SES) callsigns issued from 2014 showing status, issue date and duration

Ofcom replied:

Freedom of Information request: Right to know request

Thank you for your request regarding Amateur Radio special event Call Signs.

Your request was received on 2 February 2022 and we have considered it under the Freedom of Information Act 2000 (the FOI Act').

Your request:

Please provide a list of the Amateur Radio Special Event Callsigns currently allocated, allocated for future use, reserved for future use, reserved due to past use or formerly used.

The list should include the call sign itself, the name and description of the event, when it is/was allowed to be used on air or reserved.

The list should be provided as an attachment in a computer readable format such as CSV or XLSX.

The list should include Special Event Stations, Special Special Event Stations and Permanent Special Event Stations.

Our response:

Please find attached a current list of UK Amateur Radio Special Event Call Signs, provided in excel format.

We only have 3 values for call sign status in the system – Allocated, Available and Reserved.

Please note that we are unable to provide a comprehensive list of call signs. This is because, on rare occasion, we have processed and issued some Notice of Variations ('NOVs') manually. These were to authorise the rare use of Call Signs which fell outside the normal format, meaning that they could not be processed on our licensing system. It is consequently not possible to report on the manually-processed NoVs as this information is not held in a searchable system and would involve a manual check of every amateur radio licence to see if it had such an NoV against it. This would take us over the time limit for responding to a request. Otherwise, the allocated Call Signs are listed as 'Allocated' in the attached spreadsheet.

There is no such value on our systems as "Allocated for future use". The NoVs that are issued for an event in future would fall under 'Allocated' in the attached spreadsheet.

There is also no value for "reserved for future use" as we do not reserve Call Signs.

"Reserved due to past use" is listed as 'Reserved' in the attached list.

We are unable to provide a full list of "formerly used" Call Signs as we have changed systems, and furthermore, in line with records retention policies, we have deleted some information. In addition, a Call Sign used in the past, could have been used again, subsequently, for something different.

The SES NoV callsign spreadsheet is at

<https://www.whatdotheyknow.com/request/829361/response/1986763/attach/10/Amateur%20NoV.xlsx>

See the full SES callsign FoI correspondence at

https://www.whatdotheyknow.com/request/amateur_radio_special_event_call#incoming-1986763

You can submit an amateur radio Freedom of Information request to Ofcom online at

<https://www.whatdotheyknow.com/new/ofcom>

Ofcom release Amateur Radio callsign database

In response to a Freedom of Information (Fol) request Ofcom have released the database of 150,181 Amateur Radio callsigns for the UK and Crown Dependencies as at March 10, 2022

The database of Allocated and Reserved callsigns can be useful for people wanting to apply for a specific call sign as it shows calls which are not available for issue. The Reserved callsign may specify the date when the call will be available for re-issue. Note: Regional Secondary Locators (RSL's) are not specified in the database callsigns. This means the callsign MU0WLV appears as M0WLV and 2E0HXE appears as 20HXE.

Download the March 2022 Callsign Database from [this link](#)

The accompanying Ofcom Fol response letter is at [this link](#)

To determine which callsigns might be Available for you to apply for you should use the Ofcom database of Forbidden Suffixes in addition to the database of issued callsigns

https://www.ofcom.org.uk/__data/assets/file/0026/165734/allocated-reserved-forbidden-call-sign.csv

Those who've passed the RSGB Full exam have the option of applying for callsigns from the G and M call blocks including G2, G3, G4, G5 and M5. Details of how to apply for specific callsigns are at

<http://www.southgatearc.org/news/2020/november/g-callsigns-for-those-passing-full-exam.htm>

For those selecting a Foundation or Intermediate callsign the database can be used to see which calls are available in the M3, M6, M7 or 2*0, 2*1 call blocks.

You can submit a Freedom of Information request to Ofcom online at

<https://www.whatdotheyknow.com/new/ofcom>

Dates for RSGB Convention and National HamFest events

This year both the RSGB Convention and National HamFest will be held in October

The RSGB announced the Convention would be held on October 7-9, see

<https://rsgb.org/main/blog/news/rsgb-notice/2022/03/16/rsgb-convention-7-9-october/>
<https://twitter.com/theRSGB>

The organisers of the National HamFest announced their event will be held the following weekend October 14-15

<https://www.nationalhamfest.org.uk/>
https://twitter.com/N_Hamfest

Ofcom enforcement action 2016-2021

Freedom of Information request (Fol) regarding number of raids and prosecution of unlicensed broadcast radio stations in London in the past 6 years

The Fol asked:

1. Number of raids carried out on suspected unlicensed radio stations in London each year, between January 2015 and January 2022, broken down by year and London borough.
2. Number of raids on unlicensed radio stations in London which resulted in seizure of equipment between January 2015 and January 2022, broken down by year and London borough.
3. Number of prosecutions against individuals related to unlicensed radio stations, in London, between January 2015 and January 2022, broken down by year and London borough.
4. Number of transmitters taken down in London related to unlicensed radio stations between January 2015 and January 2022, broken down by year and London borough.
5. Number of complaints or allegations made by the public, or by license paying broadcasters, regarding possible unlicensed radio stations in London, between January 2015 and January 2022, broken down by year and London borough.
6. Cost of enforcement action regarding unlicensed radio stations in London, between January 2015 and January 2022, broken down by year and, if possible, by London borough.

Ofcom said they no longer held the information for 2015, it seems they have chosen to adopt a Data Retention Policy of deleting information more than 6 years old. They could only provide figures for each year from 2016-2021.

The number of prosecutions for 2021 was zero, read the full data at

https://www.ofcom.org.uk/__data/assets/pdf_file/0023/233591/unlicensed-radio-stations-in-London-.pdf

You can submit an amateur radio Freedom of Information request to Ofcom online at <https://www.whatdotheyknow.com/new/ofcom>

World Amateur Radio Day

DARC, the German IARU Member Society's Team SES will activate special call sign DA22WARD from 1 March until 30 April in celebration of World Amateur Radio Day on 18 April.

QSL via the bureau, or direct to DL2VFR.

And REF, the French IARU Member Society has announced that special event station TM97WARD will be on the air from 16 to 25 April to celebrate World Amateur Radio Day (WARD), which takes place each year on 18 April.

The battlefield that's 5 khz wide

The airwaves are full of news from the battle in Ukraine, with TV and radio journalists providing coverage at all hours. But for those with a bit of patience there's something else from the conflict that can be found with a radio receiver, the battle over 5 kHz of spectrum starting at 4625 kHz.

This has for many years been the location on the dial for "the Buzzer", a Russian military transmitter whose nickname describes its monotonous on/off buzzing transmission perfectly. As the current Ukrainian situation has taken shape it has become a minor battleground, and the Buzzer now shares its frequency with a variety of other stations broadcasting music, spectrograms, and other radio junk intended to disrupt it.

For the curious this can be watched unfolding on a spectrogram or through headphones by anyone within range who has an HF receiver, or for everyone else, with a WebSDR. In Western Europe it's best listened to in hours of darkness, we suggest you consult the webSDR.org list to see which has the best signal. We've heard it on receivers in Poland, Russia, and the ever-reliable uTwente WebSDR in the Netherlands. Over the time we've been monitoring it we've heard overlaying speech, and music varying from the Soviet and American anthems through dance music and K-pop to 1960s British rock and of course Boney M's Rasputin, with a few slightly macabre choices such as Final Countdown and an air raid siren. We've even heard TV intros from the Benny Hill Show, the A-Team and Mission Impossible, so whoever is doing this has a wide taste.

Alongside the music at about 4628kHz meanwhile we've watched a series of spectrogram messages scroll past in Ukrainian, Russian, and English, ranging from "Stop war" to lewd suggestions about the Russian President. It's fair to say that none of these transmissions have obscured the Buzzer, but they have had the effect of significantly increasing the noise on the channel.

To have a listen yourself, point a receiver within range at the appropriate time of day towards 4625 kHz and select USB demodulation and a 5 kHz bandwidth. Meanwhile, for some background on the Cold War HF relics, have a read about numbers stations.

<https://hackaday.com/2022/03/04/the-battlefield-thats-5-khz-wide/>

World's oldest radio amateur

ARRL reports a Barbados ham is among the world's oldest, if not the oldest. **Winston A. "Woody" Richardson, 8P6CC** (ex-VP6WR), has turned 107 years old, placing him among the world's oldest radio amateurs

Jim Neiger, N6TJ, told The Daily DX that Richardson hosted his 1980 - 82 operations (as 8P6J) from his home during the CQ World Wide DX Contest (CW). The Woody Richardson Communications Room at the Amateur Radio Society of Barbados is named for him. Richardson visited the Amateur Radio of Barbados headquarters in 2020.

Source ARRL letter Jan 6, 2022 <http://www.arrl.org/arrlletter?issue=2022-01-06>

Amateur Radio Society of Barbados

<https://www.arsb.org/>

<https://www.facebook.com/8p6arsb/>

Learning Amateur Radio Under Lockdown

Gurbir Singh M0KSN has made the full length version of his popular RadCom article - Learning Under Lockdown - available to read on the web and as a PDF

Gurbir started with the free Essex Ham Foundation Online course which enabled him to get his amateur licence.

He then wanted to learn more about amateur radio so did the free online courses for Intermediate and Full provided by the Bath Based Distance Learning team.

You can read the article here, link to PDF is at end of page

<https://astrotalkuk.org/amateur-radio/>

Follow Gurbir on Twitter <https://twitter.com/GurbirSingh>

What is Amateur Radio? <http://www.essexham.co.uk/what-is-amateur-radio>

Free UK amateur radio Foundation Online training course

<https://essexham.co.uk/train/foundation-online/>

When the world got its news from shortwave radio

Swiss Radio International ceased broadcasting in 2004, an article on the site of its successor organisation Swiss Info looks at the history of the station

The post from 2019 says:

From the mid-1930s to 2004, Switzerland's international service was Swiss Radio International (SRI). The first few decades of SRI's existence were the heyday of shortwave – it was often the only way of getting news directly from other countries.

What began as the Swiss Short Wave Service in 1935, would grow from broadcasting programmes in German, French, Italian and English to include other European languages and Arabic, and eventually change its name to Swiss Radio International.

Read the full story at

https://www.swissinfo.ch/eng/multimedia/the-sounds-of---_when-the-world-got-its-news-from-shortwave-radio/45290852

The Lighter Side of Amateur Radio

Own this frequency?

PORT O' GLOOM, GEORGIA — A Chickasaw County man has become the first amateur radio operator to officially purchase an HF radio frequency, the Federal Communications Commission announced today in a noon hour media luncheon.

Between bites of cucumber sandwiches and small squares of bread slathered with pimento cheese, FCC spokesman Pontus "Smokey" Blumenthal told reporters gathered at the Tri-County Technical College dining hall that the sale is "... part of the government's plan to generate revenue from 'under-performing' slices of the radio spectrum."

Using a lottery system, local ham radio operator Buzz Sanders (175 Fisherman's Landing), accepted purchase of 14.281 MHz in the 20 meter amateur radio band.

A retired auto industry worker, Sanders says he'll pay \$2500 for the frequency over 35 monthly payments with a large balloon payment in month 36.

"It seemed like a fair deal to me," he said. "When I get ready to work a contest, have a rag chew, want to tune up on the air, or just create some random QRM, I can use 14.281. And if someone gets belligerent, I'll remind them that as a matter of fact I DO own the frequency!"

Sanders says he's already thinking about subletting the frequency after several large contesting organizations contacted him in recent days.

Blumenthal shared that the FCC is also considering a "lease-to-own" frequency program, with the option to return the frequency to the government at the end of the lease term if propagation isn't suitable to the operator.



Make amateur radio club nets fun

If your club owns a repeater, or has access to one, your club should have a weekly net. These nets inform members about club events, provide a forum for club members to get help with any technical problems they may have, build camaraderie among club members, and are just fun. At least they should be fun.

Too often, these nets turn out to be a drudge-fest. Net controls slog through a list of check-ins, who dutifully say when called upon, “No traffic.” If your net is like this, you’re missing an opportunity.

When I’m net control, I like to get personal to get people talking. When I call a station, I’ll say things like, “Next is W8ABC. How’s life in your part of town tonight, Joe?” or “What are you up to tonight, Sam?” or “How’s that antenna project coming, Don?” or “Worked any DX lately, Steve?” If someone has joined the net from outside our local area, I’ll say something like, “K8XYZ, you’re our DX station tonight. How are things in your part of the world?”

Often, I’ll continue a conversation by asking a question about a topic brought up by a previous station. For example, if one guy says that he’s having tacos for dinner, I’ll ask the next person what they’re having for dinner or what kind of tacos they like.

To get people to show up in the first place, make sure that your club members know about the net. An announcement should be in every club newsletter, and if your club has a mailing list, send out an email announcement every week. People are busy, and things like this can often slip through the cracks. After the net, reply to the announcement email with a list of who checked in and what you discussed. If someone sees that their buddy checked in to a net, they are more likely to check in the next week. Similarly, if they see that a topic of interest was discussed, they might join the net next week to chime in on the topic.

You might try doing some different things, too. For example, before this week’s net, one guy asked if he could try sending an SSTV image over the repeater during the net. What a great idea! I, of course, said yes. On his first transmission, this guy mentioned that he was going to try this at the beginning of the second round and then pointed people towards an app— Robot36—that they could download to their Android phones. I downloaded Robot36 to my Android phone, and on his second transmission, I was able to copy the image. That was something different and fun. I’m thinking that we might even try RTTY or some other digital mode in the future.

I think you get the idea. Making a net fun will draw members, and more members means more fun. I think it’s working here in Ann Arbor. Last Monday’s net had 17 check-ins and a run time of 70 minutes.

Now, tell me how you make your club net fun.

~ Dan KB6NU

Military exercise will use 50 MHz band

Belgium's communications regulator BIPT has said 50.200 MHz and 51.075 MHz will be used from May 30 to June 18 during a military exercise

A translation of post by national amateur radio society UBA says:

BIPT informs us that in the period from May 30 to June 18, 2022, a military exercise will be held in Elzenborn in which 2 frequencies in the 6 meter band will be used: 50.200 MHz and 51.075 MHz.

The amateur radio service has a secondary status in this band, the military services a primary status.

Radio amateurs are called upon to pay particular attention to this during this period and to avoid the use of these frequencies if possible and certainly to listen carefully to whether the frequency is in use if they still wish to use the frequencies concerned.

Source UBA <https://tinyurl.com/IARU-Belgium>

Ham radio operators tune in to giant waves in the Earth's ionosphere

The very upper layer of our atmosphere is electrically charged and sometimes the electrons up there clump up and form giant waves larger than Texas that zip around the Earth faster than a jet plane!

A team of researchers from NASA's Ham Radio Science Citizen Investigation (HamSCI) has observed these giant waves, called Large-Scale Traveling Ionospheric Disturbances, or LSTIDs, for the first time. Volunteers from the amateur radio community collected the data.

This new technique for observing these LSTIDs and vividly demonstrates their effect on radio communications. It can help us understand where these waves come from, and how the layers of our atmosphere interact. These results were published in the American Geophysical Union journal Geophysical Research Letters.

If you love amateur radio and like to get involved with the HamSci citizen science project, visit <https://hamsci.org/>

Source: <https://science.nasa.gov/science-news/citizenscience/ham-radio-operators-tune-in-to-giant-waves-in-the-earths-ionosphere>

Shortwave radio making a comeback

The New York Times carries an interesting article about shortwave radio which reads: As Russia is trying to cut off the flow of information in Ukraine by attacking its communications infrastructure British news outlet BBC is revisiting a broadcasting tactic popularized during World War II:

Shortwave radio.

Shortwave radio has been a go-to vehicle to reach listeners in conflict zones for decades, used to deliver crackling dispatches to soldiers in the Persian Gulf war, send codes to spies in North Korea and pontificate through the Iron Curtain during the Cold War. But more modern forms of radio along with the internet eventually pushed shortwave out of favour; the BBC retired its shortwave transmissions in Europe 14 years ago.

Now talking Shortwave, listen on 4625 kHz.

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For the curious this can be watched unfolding on a spectrogram or through headphones by anyone within range who has an HF receiver, or for everyone else, with a WebSDR. Over the time monitoring it heard has been overlaying speech, and music varying from the Soviet and American anthems through dance music and K-pop to 1960s British rock and of course Boney M's *Rasputin*, with a few slightly macabre choices such as Final Countdown and an air raid siren. Even intros from the Benny Hill Show, the A-Team and Mission Impossible, so whoever is doing this has a wide taste.

Alongside the music at about 4628kHz seen has been a series of spectrogram messages scroll past in Ukrainian, Russian, and English, ranging from Stop war to lewd suggestions about the Russian President. Its fair to say that none of these transmissions have obscured the Buzzer, but they have had the effect of significantly increasing the noise on the channel.

Owning a shortwave radio is once again a subversive activity

An abiding memory for a teen fascinated by electronics and radio in the 1970s and 1980s is the proliferation of propaganda stations that covered the shortwave spectrum. Some of them were slightly surreal such as Albania's Radio Tirana which would proudly inform 1980s Western Europe that every village in the country now possessed a telephone, but most stations were the more mainstream ideological gladiating of Voice of America and Radio Moscow.

It's a long-gone era as the Cold War is a distant memory and citizens East and West get their info from the Internet, but perhaps there's an echo of those times following the invasion of the Ukraine. With most external news agencies thrown out of Russia and their websites blocked, international broadcasters are launching new shortwave services to get

the news through. Owning a shortwave radio in Russia may once again be a subversive activity. Let's build one!

There was a time when everyone had a radio, and radio listening was a universal occupation. From 1930s families clustered round an ornate family radio to the teenagers of the 1960s and 1970s with their portables, it's a defining 20th century image. Though many of us still listen to radio here in 2022 the chances are that we no longer do so over AM and certainly not over shortwave. We can get instant access to almost any content online, so it's by no means certain people will have a radio. If those shortwave transmissions are starting again, how can their intended audience pick them up? Perhaps it's time to look at shortwave radios with a 2022 slant.

If you lack a shortwave radio and a dig around all your family's junk hasn't turned up a relic from decades past, then the simplest way to get one is of course to buy one. AliExpress is full of "world band" radios starting from somewhere under \$20, and if you don't mind waiting for shipping from China then it's the path of least resistance.

But there's the problem, international events are moving fast and there might not be the luxury of waiting three weeks, or even for that matter of being able to order one at all in a warzone. How can you make one? Yet again there's an extremely simple option in the Silicon Labs series of one-chip radios. These provide a high-performance shortwave receiver with a minimum of external parts, and really are a miracle of integration. But yet again, in a warzone and in the middle of a chip shortage they just might not be an option. So how can you make a shortwave radio receiver using what parts might be at hand from available consumer electronics? We'll first be taking a look at some possible avenues, and then introducing a few of the readily available building blocks.

WHERE DO YOU START?

The best way to start is to look at the things that you might already have. Such electronic flotsam and jetsam as battery-powered AM radios, car radios, or even \$10 RTL-SDR sticks. All of these can be modified or converted to receive the shortwave broadcast bands, often with readily available parts.

Probably the simplest method possible might be to directly modify an existing AM radio. I'm indebted to [Phil M6IPX] for passing me on an instructables link for a method to do this. It involves changing the resonant frequency of the ferrite rod antenna coil in the radio, and I'm guessing, relying on a harmonic of the local oscillator rather than the fundamental to do the mixing. It doesn't cover all the broadcast bands, but it might do at a pinch.

<https://hackaday.com/2022/03/17/owning-a-shortwave-radio-is-once-again-a-subversive-activity/>

International HEMA Day

'HEMA' is an interesting alternative to SOTA and is now 10 years old. Having been exclusively a UK and Eire only programme for many years; recently it has branched out and engaged other DXCCs around the world. It's now active amongst our friends in Germany, France, Portugal, Spain, Czech Republic, and large parts of Australia.

To celebrate this new international flavour and the 10-year anniversary, we announce "International HEMA Day 2022" on Saturday 2nd April 2022.

The operating period can be any time during that day (UTC) and there will be attractive certificates for those successfully taking part. Any station working at least one HEMA activator will receive a commemorative certificate. There will also be additional certificates for any activator achieving a "HEMA to HEMA."

Alerts and spots can be found on the HEMA website here to facilitate QSOs with stations on the day: <http://www.hema.org.uk/indexSpotting.jsp>

The HEMA organizers are also looking to build on their success by partnering with interested radio amateurs who would like to launch HEMA in their country/region. Further information can be obtained by writing to the team here: newDXCC@hema.org.uk. Alternatively, the HEMA website is here and contains all the programme details: <http://www.hema.org.uk/index.jsp>

We're all looking forward to a busy day on the bands! Let's hope for sun! 73

Amateur radio in Belfast in the 1920's

The Institution of Engineering and Technology (IET) has published an article about **Eric Megaw 6MU** (G16MU), a radio amateur in Belfast in the 1920's

Eric's radio achievements featured in the newspapers of the time. When aged only 15 he hit the headlines in the local press, under the title of 'Belfast, Ireland – Boy Spans Ocean' (December 12 1923). In October 1924 the Belfast Telegraph carried the story 'Belfast Boy Receives 12,000 Mile Signal'.

On August 15, 1925, the Irish Telegraph published a picture of Eric and his amateur station and in 1926 under the title, 'Belfast Talks to India: Amateur's Fine Performance', it was reported:

"On Wednesday evening a Belfast radio amateur, Mr Eric Megaw (G16MU), who has for some time been experimenting with low power telephony on short waves, established telephone communication with Mr H. Beck (Radio Y-HBK) at Kohat, India. Mr Beck, who was using Morse code signals, reported "speech quite OK, fairly strong, with no distortion". This is understood to be the first time words spoken in Ireland have been heard in India, and, as Mr Megaw was using an input of only 30 watts (about half the power used by an ordinary electric light) and a single 20 watt Mullard transmitting valve, the transmission is probably a record for low power and simple apparatus."

In the 1930's he worked at the General Electric Company Research Laboratories at Wembley where he was involved in the development of high power magnetrons.

Read the IET article at

<https://ietarchivesblog.org/2019/02/06/eric-megaw-and-amateur-wireless-transmissions-of-the-1920s/>

In the 1920's the prefixes used for overseas contacts by amateur stations in the British Isles were:

GI - Northern Ireland

GW - Irish Free State

GC – Scotland

G - used for both England and Wales (and possibly the Crown Dependencies?)

Several radio amateurs in the UK obtain special 40 MHz permits

Roger, G3XBM in the east of England can operate from the 2nd of April for 1-year with 5-watts. Roger writes... "After a very long wait OFCOM has approved my 8m TX permit that runs from April 2nd for a year.

It permits me to use 40-42MHz with digital modes (including CW) at 5W ERP max. I expect to erect a wire dipole which is directed towards Europe.

I expect to be mostly on FT8 around 40.676MHz with precise frequency done in liaison with others. What I hope is all 8m FT8 stations can be monitored with one USB dial setting, but spaced out. 5W should certainly cover Europe with Es. I shall try some local CW crossband QSOs, but hope to be on FT8 24/7."

John, G0JJL in the north-west of England can operate from the 1st of May 2022. John writes... "I am one of the UK Amateurs that have recently obtained a temporary 12 month licence to transmit on 40MHz.

These licences are not Amateur Radio special permits, they are Innovation and Research licences which have nothing to do with Amateur Radio at all. In fact, anyone in the UK can apply for this type of licence whether they are a licensed Amateur or not.

The UK regulator, Ofcom, do not issue callsigns with Innovation and Research licences, it is up to the licence holder if they wish to use one and the licence holder can use any callsign of their choice. Some UK Amateurs who obtain an Innovation and Research licence might decide to use their Amateur Radio callsigns on 40MHz and this is perfectly legal so far as Ofcom are concerned. However, using their Amateur Radio callsign on 40MHz does not mean their station is then an Amateur Radio station operating on 40MHz, it is not, it remains an Innovation and Research licence station only and this as been confirmed by Ofcom.

My Innovation and Research licence was granted to allow research of propagation in the 8m band and my licence permits use of 40.680MHz and 40.690MHz using narrow band digital modes and CW from 1st May 2022 from two locations. The callsign to be used is GR9A."

Neil, G0JHC in the north-west of England has also applied for a permit and will be using the callsign GR9B. Neil is located in the same area as G0JJL.

* * *

Paul, G7PUV in the south-east of England is currently applying for a permit. Others are likely to follow.

Analysis... This is indeed welcome news as it allows more signals on the band which is great for experimentation. There's only so many times you can report a beacon on 40 MHz.

At the end of April, the Sporadic-E season will have started and it should be quite easy for the UK stations to be heard in countries with permits like Slovenia (S5) and Croatia (9A) which are around the 1200km mark.

By late May and all of June, there should be plenty of short skip Sporadic-E with distances in the region of 500-1000kms possible.

There are plenty of opportunities for radio amateurs in the UK to participate in these experiments by listening for the permit holders and working them cross band from 40 MHz to either 28 MHz or 50 MHz.

40 MHz is an excellent band for meteor scatter tests. Tropo contacts up to 200kms may be possible and aircraft scatter propagation can also be explored.

Trans-Atlantic contacts to the permit holders in the USA should be possible in May and June by multi-hop Sporadic-E. There is also the possibility of very long paths to South Africa.

Maybe in time, radio amateurs in the UK will get an allocation at 40 MHz but for now, this is a 'foot in the door'. The results of these Innovation & Research permits can be used to show a real need for a formal amateur radio allocation for this band.

<https://ei7gl.blogspot.com/2022/03/several-radio-amateurs-in-uk-obtain.html?>

The history of UK Test and Development G9 callsigns

Lewis M3HHY has released a video about the G9 callsigns which in the last century were associated with Test and Development licences

Watch G9 Radio Test & Development License - Call Signs Not For Amateurs

https://www.youtube.com/watch?v=W74__DqX3pc

Follow Lewis M3HHY at

<https://twitter.com/OfficialM3HHY>

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