STARLITE

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

G6OI
G6SRS

G4CVK

ISSUE: JUNE 2022

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

RSGB AFFILIATED SOCIETY

The views expressed in STARLITE may not be those of the Committee – Stourbridge and District Amateur Radio Society

STARLITE

Telephone Enquiries to:-

Hon. Secretary
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:-

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

StARS Website URLs:-
www.g6oi.org.uk

StARS Facebook Page:-
https://www.facebook.com/groups/stourbridge.ars/

Forthcoming Meetings

June 6th	Club Meeting at Norton Social Club. 8pm
June 13th	Club Meeting at Norton Social Club. 8pm
June 20th	Club Meeting at Norton Social Club. 8pm
June 27th	Club Meeting at Norton Social Club. 8pm
July 4th	Club Meeting at Norton Social Club. 8pm
July 11th	Club Meeting at Norton Social Club. 8pm
July 18th	Club Meeting at Norton Social Club. 8pm
July 25th	Club Meeting at Norton Social Club. 8pm
August 1st	Club Meeting at Norton Social Club. 8pm
August 8th	Club Meeting at Norton Social Club. 8pm
August 15th	Club Meeting at Norton Social Club. 8pm
August 22nd	Club Meeting at Norton Social Club. 8pm
August 29th	Club Meeting at Norton Social Club. 8pm
September 5th	Club Meeting at Norton Social Club. 8pm

Editor's Comment **[Editor: g4xom@g6oi.org.uk]**

As you will be aware, it appears that, this year, we may enjoy a return to OSH. Hon Sec is in contact with the headmaster in order to facilitate this. Upon our return, it seems likely that we will have a room change, as our previous room has been reallocated as a science room. Hopefully, we shall have more news very soon.

Besides any news items gleaned from the internet, this issue contains the following:

Foundations Of Amateur Radio
A Decibel Is Still A Decibel
Have Birdies Moved In? It May Be Your USB Cable

The Worked All Continents Award

The Worked All Continents (WAC) award is sponsored by the International Amateur Radio Union (IARU) and is issued for working and confirming all six continents. This means one QSO with each of North America, South America, Oceania, Asia, Europe and Africa. A total of 6 QSOs.

A Five-Band Worked All Continents award is also available. You must work and confirm all six continents on each of the 5 primary Amateur bands of 80, 40, 20, 15 and 10 Metres. The Five-Band WAC is strictly a band-only award, it cannot be endorsed on any mode. For more information, visit www.iaru.org/on-the-air/operating-awards/

Early Mobile Operation

Foundations of Amateur Radio

What's in a sound?

Over the past few weeks I've been having my hearing tested. I've had the opportunity to discuss sound in some detail with an audiologist. Today as a result of a collision between a jar of chilli pickles and a tiled floor I've come to the realisation that sound is important in unexpected ways.

It will probably not come as a surprise to you that sound has an emotional component. Just think of a particular song, or a voice, or something that you've heard previously. The sound of a jack-hammer, or a bell, a horse or a jet, each completely different, impact on your mood. Some sounds are pleasant, others jarring. Some make you feel happy, others make you anxious or even angry.

For some time now I've observed in myself that there are times when I cannot stand sound and other times when I invite it into my life.

For example, if there's a HF radio going in the background and I'm attempting to have a conversation with a person in the shack, the sound coming from the radio causes irritation, to the point of needing to turn it off in order to actually hold a conversation. On the other hand, if there's a contest on, I can sit, happy as a clam, listening to HF all day and night, working out what station is calling, and making contact.

I'm raising this because it occurs to me that amateur radio is unlike broadcast radio where you're expected to actively monitor what is being transmitted. In my experience as a radio broadcaster you're talking into a microphone and the headphones you're wearing are connected to a radio receiver which is tuned to the station on which you're broadcasting. This gives you immediate live feedback on the state of your audio levels.

As an aside, I once witnessed a fellow broadcaster who didn't feel the need to wear headphones. They were blissfully unaware that their voice was being transmitted into silence because the audio fader on their microphone was down.

In amateur radio however, we don't often do such things. We transmit blind most if not all of the time. It's rare that we even hear our own voice on-air, let alone hear it in real time. If that's not enough, using sideband, it's easy to modify the sound of a person by changing the frequency slightly, making their voice either higher or lower, just by adjusting the dial.

It occurred to me that how your voice is perceived by the other station assists in how that station can hear you and make contact.

Using the local repeater is a good but subtle example. If you've listened for a while, you might have observed that there are stations that are easy to understand and others that are not. Sometimes that comes down to individual accents, but in my experience a much larger impact is caused by the actual transmission itself.

Is the microphone gain set correctly, is there any filtering in play, is the station on the correct frequency, is the transmitter using the correct mode and other more subtle things like background noise, speaking volume and distance and direction in relation to the microphone.

We often talk about less being more and you already know that I'm a big fan of low power or QRP operation. Making contacts is absolutely about using the right antenna, the right mode, the correct band and time of day, but the sound coming from your station is just as important.

If you have the ability to use two radios simultaneously, then I'd recommend that you find a way to either use a local repeater, or a cross-band repeater, or even a remote web-based radio, to hear what you actually sound like on-air, live, and experiment with the various settings on your radio in order to test and improve the quality of your voice.

Whilst we as radio amateurs don't standardise our signals, though personally I think it would be a great idea, there's plenty of improvement to be had by taking some time out of your next on-air activity to have a long hard listen to yourself.

I'm Onno VK6FLAB

• This article is the transcript of the weekly 'Foundations of Amateur Radio' podcast, produced by Onno Benschop, VK6FLAB who was licensed as radio amateur in Perth, Western Australia in 2010. For other episodes, visit http://vk6flab.com/. Feel free to get in touch directly via email: cq@vk6flab.com

• If you'd like to join a weekly radio net for new and returning amateurs, check out the details at http://ftroop.vk6flab.com/, the net runs every week on Saturday, from 00:00 to 01:00 UTC on Echolink, IRLP, AllStar Link, Brandmeister and 2m FM via various repeaters, all are welcome.

X-flare announces new sunspot group

A new and potentially very active sunspot group emerged today.

It announced itself with an X1-class solar flare, which caused a strong shortwave radio blackout over the Atlantic Ocean and Europe. More flares may be in the offing as the sunspot turns toward Earth.

Developing story @ Spaceweather.com.

Don't miss another solar flare:

Subscribers to our Space Weather Alert Service received a text message about today's X-flare while it was happening

Strange sunspot explodes, produces X-class solar-flare

An unusually-magnetized sunspot exploded on May 10th, producing an intense X1.5-class solar flare. Shortwave radio signals were blacked out around the Atlantic Ocean for as much as an hour, and now there's a chance a CME is heading our way. Updates @ Spaceweather.com.

Don't miss another solar flare: Subscribers to our Space Weather Alert Service received a text message about today's X-flare while it was happening.

England special event

At the request of the RSGB, Ofcom, look for some English stations wishing to retain their usual Regional Secondary Locator to identify their DXCC entity to use the suffix '/70' to celebrate the Queen's Platinum Jubilee (70th anniversary) of Queen Elizabeth II.

It is also permitted to use the "/70" suffix with the "2Q/GQ/MQ" prefix if desired throughout the month June.

https://rsgb.org/main/blog/news/gb2rs/headlines/2022/02/04/suffix-70-permitted-for-platinum-jubilee/
https://rsgb.org/main/blog/news/rsgb-notices/2022/02/09/notice-of-variation-available-for-jubilee-celebrations/

Some announced stations listed on QRZ.com are: 2Q0ESN, 2Q0FFS, 2Q0GUI, 2Q0HQU, 2Q0IAR, 2Q0LRX, 2Q0PNN, 2Q0PYG, 2Q0RPZ, 2Q0XII, 2Q0YAY, 2Q1DJN, 2Q1HWE, GQ0CHE, GQ0FOG, GQ0KLD, GQ0MWT, GQ0PVR, GQ0RDU, GQ0SHC, GQ0VCW, GQ0VEO, GQ0YCE, GQ1NPN, GQ1OVK, GQ3SEN, GQ4JDT, GQ4LJW, GQ4PVM, GQ4YVM, GQ5JDA, GQ6EES, GQ6MHO, GQ6NWF, GQ7CSM, GQ7ONL, GQ7UYT, GQ8CW, GQ8JGF, GQ8REM, MQ0AIH, MQ0AWS, MQ0GOR, MQ0HIH, MQ0HVU, MQ0HZ, MQ0JNL, MQ0KUH, MQ0NSI, MQ0OMC, MQ0RVN, MQ3FON, MQ7MGP, MQ0PTZ, MQ0RQX, MQ0SKN, MQ0VKU, MQ0XLT, MQ0XTY, MQ0XZT, MQ1SJE, MQ3OZP, MQ3UXJ, MQ5BAE, MQ5DZH, MQ6GVP, MQ6JOO, MQ6PJV, MQ6PJV, MQ6USG, MQ7BNX, MQ7BZU, MQ7DKG, MQ7ENP MQ7ERU, MQ7LDW, MQ7KEV, MQ7SWR, MQ7TAS, MQ7XUK, 2M0GUI/70, 2M0JHY/70, 2M0SNT/70, M7CPT/70 and M7UTG/70.

Also, look for Dainius, M0HMJ, to be active as MQ5W during various contests in June to commemorate the Platinum Jubilee of the Accession of Her Majesty.

Also look for GB2PJE by the Thames Amateur Radio Group (TARG) will be operating from a location near Battlesbridge in Essex and the callsign will be in use by TARG members and visitors under the supervison of a Full License Holder.

RSGB Jubilee activities

It isn't long now until the RSGB's Platinum Jubilee activities kick off. There is a wide range of things to be part of, from using the /70 suffix to creating something for the Innovation 70 competition or having a go at the WSPR 70 fun challenge. There is also still time to activate one of the seven special GB70 call signs.

You can also take the opportunity to get involved in our GB70 Platinum Jubilee activities by working the Guernsey GB70U station via amateur radio satellite - for more information see the GB70 blog post https://gb70.co.uk/2022/05/19/gb70u-from-guernsey-to-space-and-back-again/

For full details of all the RSGB Jubilee activities head over to www.rsgb.org/jubilee

2 Metres

A Decibel Is Still A Decibel

When discussing signal levels and power output, hams like to say things like:

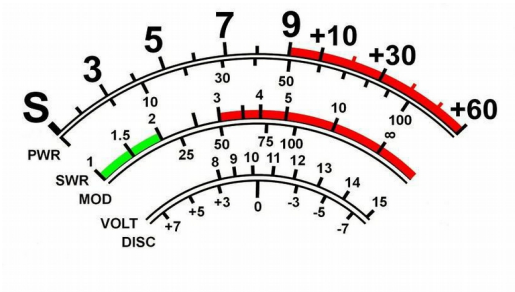
Using higher power isn't important because it only gives you one additional S unit

and

You'll lose some power in the coax but you won't even notice a few dB

These statements are often true and at the same time may be completely wrong. I've noticed that radio amateurs pushing the limits of their station pay close attention to every decibel they gain or lose. This is especially true at VHF/UHF frequencies where signals may be weak. A dB here, a dB there, the next thing you know it adds up to something big!

Definitions



First, let's make sure we have a few definitions right. The decibel (dB) is defined as the ratio of two power levels:

dB = 10 log (P2/P1)

One decibel corresponds to a 26% increase in power level. A well-known rule of thumb is that doubling the power corresponds to a 3 dB increase. Similarly, chopping the power in half drops the signal level by 3 dB. A 10 times increase in power is 10 dB. (Voltage can also be used to calculate decibel relationships but to keep it simple, I'll just use power.)

The S Unit is normally defined as a 6-dB change in signal level, which is a factor of 4 in power. (Your S meter may or may not actually follow this rule but that is a topic for another day.)

Power Level

Let's compare a few different power levels to get a feel for how decibels and S units behave. Let's use a 5 watt QRP level as our reference power. If we crank up the power to 100 watts, we have 10 log (100/5) = 13 dB increase in power level. This is slightly more than two S units (2 x 6 dB), so we would expect the S meter on the other end to read 2 units higher.

Now suppose we kick in our linear amplifier to produce a 1 kilowatt RF signal. This power level is 10 log (1000/5) = 23 dB higher than the 5 watt signal, or roughly four S units.

Now if our QRP signal was a solid S9 to start with, adding another 23 dB on top of it may not be that significant. The station can be heard at S9 or can be heard even louder at S9 + 23 dB. Except when there's a pile of stations all calling that rare DX… then the loudest station tends to be heard. Crafty operating skill and good luck may overcome the power difference.

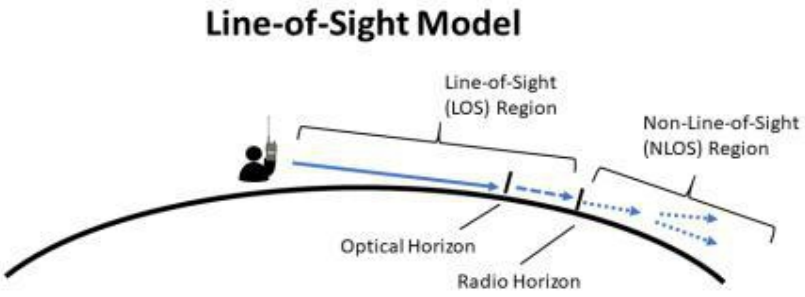
But consider the other extreme. Our QRP station is being heard right at the noise floor on the receive end. The two stations are struggling to complete the contact and the propagation path degrades by 2 dB. Now the QRP station is below the noise and un -copyable. We increase our power to 100 watts and gain 2 S units… still not very strong but the ability to receive the signal improves dramatically. Crank it up to 1000 watts and

you gain another couple of S units and the copy is quite good. The key point is that changes in signal level matter most at the margin, when you can just barely copy the signal. (By the way, there is nothing wrong with running QRP… many ops enjoy the challenge of making contacts with low power.)

At the receiver, our ability to recover the signal is determined by the signal-to-noise ratio (SNR). A higher noise floor at the receiver means it will be more difficult to hear the signal coming in. The type of modulation being used may also make a big difference. Good old CW and the WSJT modes use a narrower bandwidth and will get through when wider -band modulation (SSB, FM) fails. In all cases, a stronger signal works better.

Antennas

Antenna systems also increase our signal level…and they do it for both transmit and receive. I recently did some comparisons of VHF antennas from a SOTA summit. My 2m Yagi antenna has 6 dB of gain (referenced to a dipole) and my comparisons showed that the performance of this antenna was good enough to pull some signals out of the noise to be solid copy. This occurred when the other station's signal was right at the noise floor (using my lower gain antennas) such that the 6 dB improvement had a significant impact.



Sometimes hams will say that VHF is just line-of-sight propagation and that the signal level doesn't matter much. This is partially true but often we are stretching for contacts beyond line-of-sight. Take a look at this article: The Myth of VHF Line-Of-Sight. This is another case where we are operating on the margin and every dB matters.

Feedline loss can cause us to lose decibels, which impacts both transmit and receive performance. If your coaxial cable is short, then the losses may be negligible. Increasing cable length and increasing frequency produce more loss.

For example, 100 feet of RG-8X has only 1.1 dB of loss at 10 MHz. Increase the frequency to 146 MHz and the loss jumps to 4.5 dB, using the Times Microwave cable calculator. That means 50 watts of power at the transmitter turns into 17.7 watts at the other end of the cable. Using LMR-400 coax reduces the attenuation to 1.5 dB.

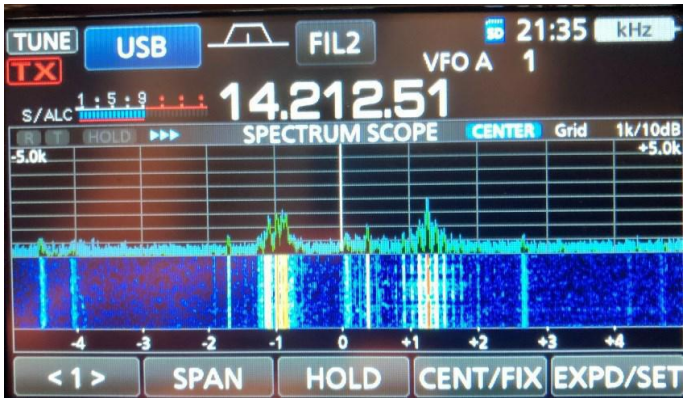
Summary

You can choose to ignore small changes in your signal level. A dB here or there may not make a big difference with casual ham radio operating. But these losses tend to add up and may become significant. Most importantly, just a few dB may be the critical difference between making a radio contact or not, when operating at the margin.

~ Bob K0NR

Have birdies moved in? It may be your USB cable

For months I have been troubled by birdies on my iCom 7300. In RF language, birdies refer to spurious signals or “spurs” as some would call them. These could be caused by unfiltered/poorly filtered mixing products or unfiltered/inadequately screened high order harmonics of signals or a combination of both.



It was annoying, particularly on 20m, as shown in the screenshot. They occurred at regular intervals on the band, completely eliminating any opportunity for contacts where they occurred.

I initially suspected a noisy walwart or LED fixture. Methodically unplugging each did not resolve the problem. Next I took an old AM transistor radio set on an empty frequency near the bottom of the band. This method has worked well for me in the past and we demonstrate this method in our Basic Amateur Radio course. Unfortunately it did not reveal the reason for the interference.

By accident I happened upon a site that suggested the USB control cable from the radio to computer could be the culprit. Many USB cables are not well shielded. Upgrading to a better cable with ferrites at each end solved my problem, the birdies have flown.

~ John VE7TI

RSGB Beyond Exams Club Scheme relaunches as Brickworks

Brickworks is a scheme run by local amateur radio clubs that have committed to helping all licensed amateur radio operators discover more about what the hobby has to offer. It was originally launched in early 2020 by the RSGB under the name of the Beyond Exams Club Scheme.

When Covid struck, clubs were no long able to meet in person and it was harder to help radio amateurs to work through the Club Scheme activities. Now life is opening up again, the RSGB is delighted that Brickworks – as it will now be called – is being relaunched.

Whether you are a new licensee, returning to amateur radio or want to try something new, Brickworks has something to offer you! If you are already a Beyond Exams Club Scheme accredited club you don't need to register again.

For more information see the Society’s website: www.rsgb.org/brickworks

LA100B celebrating centenary of Bergen Group of NRRL

LA100B is the centenary call sign for the Bergen group of the NRRL and will be used throughout 2022

The group says:

Our usual call sign is LA1B and we also use LN1B in contests.

In 2022, the Bergen group of NRRL celebrates its first 100 years. Our club was founded on 25 November 1922 under the name Bergens Radio Amatør Klub (Bergen Radio Amateur Club). The foundation took place in Hotel Transatlantic in Bryggen (the Wharf). It was only fitting that the club was founded in Hotel Transatlantic, only a few months after the first transatlantic contact between radio amateurs.

After becoming a member of Norsk Radio Relæ Liga (Norwegian Radio Relay League, NRRL) when NRRL was founded in 1928, the club's name was changed to "Bergensgruppen av NRRL", in accordance with NRRL's rules.

Centenary operating activities in 2022:

The operating activities will be based in the club station in Totland, Bergen, grid locator JP20RH.

LA100B will be activated throughout the year in many modes and the HF + 6 m bands. We will also use the centenary call sign in contests.

Awards in several classes will be offered for contacts with LA100B.

Information about activities on air, rules and award/diploma download:

https://www.la1b.no/la100b/

The unsecured British army radio system in 433 MHz

Lewis M3HHY has released a video about the UK's old Mobile Land Defence system that used channels in 433 MHz offset 12.5 kHz from the IARU-R1 25 kHz channels

Introduced in 1976 this military communications system operated on both VHF and UHF frequencies across Great Britain, a separate system had already been established in Northern Ireland.

Watch The Unsecured Army Radio System Anybody Could Hear

https://www.youtube.com/watch?v=M_j6cp0KZdI

Detailed information on the system is at

http://www.ringbell.co.uk/ukwmo/Page251.htm

At May 1975 IARU Region 1 Conference member societies from the UK and other countries agreed a Low-in High-out band plan for UHF repeaters, inputs 433.0-433.225 MHz, outputs 1.6 MHz higher.

In April 1976 RadCom there was a surprise announcement that the UK would Reverse the IARU Region 1 band plan putting the repeater inputs at 434.6-434.850 MHz with outputs at 433.0-433.350 MHz. They also said 50 kHz spaced channels would be used for both repeaters and FM simplex frequencies rather than 25 kHz.

The RSGB announcement didn't mention the military's Mobile Land Defence system, introduced that year, instead it gave some other reasons but it seems likely that MOLD was the real reason

The RSGB announcement said:

A plan for 70cm which already existed was that recommended by IARU Region 1 at the 1975 Warsaw Conference, in which repeater inputs were from 433.00-433.225 MHz, with output frequencies 1.6 MHz high in frequency. The [Repeater Working] group decided that this plan was not suitable because

(a) the UK allocation 430-432 MHz was not being fully utilized;
(b) the plan may not be the optimum for compatibility with ATV operation;
(c) it was thought desirable that it should be possible to monitor repeater output frequencies within the range normally covered by tunable receivers.

Radio ham helps save man swept overboard

On Thursday night, April 28 UTC, an emergency call came in that a ship had a man overboard. A Norwegian radio amateur helped to save the person in question

A translation of the post by Norway's national society NRRL says:

In addition to being an avid radio amateur, **Geir Tore Christiansen LA5ZO** is also an avid sailor. He is currently in port in Horta on the island of Faial in the Azores with the sailboat Ocean Viking.

Thursday night at 2341 UTC, he received an emergency call on digital selective call (DSC) at 12 MHz. The call came from the Hong Kong-registered bulk carrier M/V Shandong Fu Xin who is on his way from New Orleans with a course for the Panama Canal. They reported person overboard and stated their position at 27.39N and 88.49E.

Geir Tore describes it like this on Facebook: "I felt some association to LA8PV (Fleksnes) and "My Mayday" *[a fictional radio amateur in the TV show Radiot]* when I received an emergency call on digital selective Call at 12 MHz on Friday night. For fun, I put the position on the map and found that it must be wrong. The position was far inland in Bangladesh. I had the boat's MMSI number and searched for it on MarineTraffic . There was the right position, ie that 88 E should be WEST and he was then 100 Nm south of New Orleans. I found the phone number of the US Coast Guard who has this area. They had not received any DSC and thanked for the info and said it would call them on the satellite phone. "

Yesterday, Geir Tore could read online that a search operation had been launched. He had been found by a plane with a heat-seeking camera, and then rescued by a helicopter. The person in question was wearing an inflatable work vest.

This case ended well. One man's curiosity became another man's salvation.

Source NRRL https://tinyurl.com/IARU-Norway

Post by Sverre Holm LA3ZA about the fictional radio amateur Marve Fleksnes LA8PV from the TV show Radiot, includes video clip from show

https://www.amateurradio.com/the-radio-amateur-who-felt-compelled-to-abandon-his-own-call-sign/

Does your club engage with the wider community?

QNews-VK discusses how clubs can engage with more people and the wider community

Geoff Emery VK4ZPPK says:

What is your club's plan to engage with more people and the wider community? Do you have a plan or do the days just pass you all by?

One of the important messages that can be given to community groups is to put your name out in the public. There are various ways of doing this and having an effective strategy and at least one person to apply it is the beginning of an effective presence. Your club does have a publicity officer doesn't it? The important thing is not that that person can do a weekly voice presentation for WIA News or can write exciting passages for the local newspaper or Amateur Radio magazine but that they can co-ordinate these activities.

What about a publicity campaign to get noticed in the community and amongst the other civic groups in your area? What about it? Is there a person who can spin a yarn and give a presentation amongst the members? Why, because many community groups like to have a guest speaker at their meetings in order to learn about what others are doing. Is there enough money in kitty to get some posters made and have them displayed in prominent places around town?

Getting name recognition is a good way to attract members because people infer that this group is active, is doing things that they might like to share.

One thing that is important is the social contact that members can have together. Getting together should not just be to decide on the next outing or get on with the formal business but it should be a way of cementing friendships and provide a regular point of contact. Group meals, barbecues and visits to interesting places allow people to relax and get to know each other and enjoy a change of routine in a different environment. Does your club have any of these activities on a regular basis? I hope so.

Sometimes it is worth showing a collective presence with the club insignia. Clothing, caps and badges that can be worn and identify members to others are usually a good conversation starter on outings. When was the last time this was discussed and when was the last time an order was placed so old stock can be replaced and new members made to feel part of the team? Being recognised and welcoming can do more than many expensive programs amongst our local communities.

Then of course the most important question amongst the many I have posed is whether your club feels it is worth growing into the future. That is a question each club member needs to ask themselves and then discuss amongst the other members. If you agree to progress then choosing the targets and making a plan that can be followed should come easily.

I'm Geoff Emery VK4ZPP and that's what I think… how about you?

Source Qnews-VK https://groups.io/g/QNEWS-VK http://wiaq.org.au/

End-of-contract notifications driving better deals for customers

More people are taking out new contracts and securing better deals with their broadband provider after being reminded their contract is up, according to new Ofcom research.

In February 2020, Ofcom introduced rules requiring phone, broadband and pay-TV providers to warn customers when their current contract is ending, and what they could save by signing up to a new deal.

Our analysis of broadband contract renewals shows that these end-of-contract notifications have led to customers taking out better deals.

Plusnet saw the biggest increase (13 percentage points) in the number of customers taking out a new deal as a result of receiving one of these alerts. BT, EE and Virgin Media saw similar (10-percentage point) increases.

We also looked at the price customers pay after taking out a new contract. We found that some customers were able to save an average of more than £110 a year when taking out a new contract in response to an alert.

Customers of some providers actually paid a higher price on average after signing up to a new deal, which may reflect customers upgrading to a faster package.

The findings follow Ofcom's research published in November 2021 that found the number of broadband customers who are out of contract fell from 8.7 million (40%) in 2019 to 7.4 million (35%) in 2020.

James Mackley, Ofcom's Economics Director, said:

"It's encouraging to see more people saving money after we made it easier to grab a better deal.

"This is particularly important at a time when household budgets are under heavy strain, as the potential savings available can be significant. So it's worth checking if you're out of contract, and seeing what deals are available."

Shortwave Radio Resurrected

Canada's CTV News reports shortwave radio, used by spies for decades to send encrypted messages, is being resurrected for the war in Ukraine

The story says:

According to Dr. Andrew Hammond, curator and historian at Washington, D.C.'s International Spy Museum, the shortwave radio "is a classic tool that was used for espionage.

"With a shortwave radio like this, you can transmit information over huge distances," he told CTV National News.

But now, decades later, shortwave is coming back into use.

After Russia attacked communication towers in Ukraine, the BBC went old school, broadcasting their news service on the shortwave frequency to counter Russian

propaganda about the war.

"The BBC is using it to transmit it because it's a lot harder to block those transmissions," John Figliozzi, a shortwave radio expert and author of the book 'The Worldwide Listening Guide,' told CTV National News. "It's an old technology, but it works."

Used in conflict zones, shortwave is less complicated than other communication avenues, and travels further than TV or cell phones.

Radio waves are electromagnetic signals that can be broadcast and for others to tune into by tuning a radio to the correct frequency, such as tuning your car radio into AM or FM chanels.

Shortwave radios tune into a range of frequencies that includes all of the high frequency bands, among others. When shortwave transmissions are directed at an angle into the sky, they bounce off of a layer of atoms in the atmosphere called the ionosphere, allowing them to travel beyond the horizon, much farther than other radio waves that are limited by having to transmit in a straight line.

Over the past few months, amateur radio hobbyists have used shortwave to pick up Russian soldiers openly discussing battle plans. Anti war protestors have also used it to 'troll' the Russian military, by blasting the Ukrainian national anthem or jamming their channels with annoying ear worms.

Watch the video and read the full story at

https://www.ctvnews.ca/sci-tech/how-shortwave-radio-is-resurfacing-as-a-tool-in-ukraine-1.5894366

HAMCHALLENGE 2022

We want your ideas to change us! Amateur Radio is about fun, radio communications, technology, experimentation, self-training and friendship. Do you have a mind-blowing idea you would like to share with the community?

The International Amateur Radio Union Region 1 is inviting you to come up with a game changing idea, which could lead to more licensed radio amateurs. Make a team, share your ideas, present your proposal and bring this to reality. This is the time for change in amateur radio and we are looking for you! The best proposals will be rewarded, don't miss this opportunity!

The challenge - Do you have a revolutionary idea that you would like to share with the amateur community? What do you think will be appealing and leading to more fun altogether? The HAMChallenge is a call for ideas: the best proposal will be rewarded and brought to life!

Applicants must submit an abstract of their idea with a short biography and a brief motivation statement, by e-mail to **hamchallenge@iaru-r1.org** before 1 June. A committee will review the different proposals and preselect the best ones in their opinion for further consideration at this time by 10 June. The participants will then have 15 more days to prepare a more detailed presentation of their idea to be presented in person or virtually during HamRadio 2022 in Friedrichshafen.

Canadian amateurs to use special prefixes for Platinum Jubilee

Canada's radio amateurs will be using the prefixes XK, XJ, VG and VX from May 15 to July 14 to celebrate the Platinum Jubilee of Queen Elizabeth II

There will also be Canadian Special Event stations with special callsigns, see the online Canadian special event call sign page

https://apc-cap.ic.gc.ca/pls/apc_anon/query_spev$.startup

6177km (3838 mi) QSO in FM 10 meters frequency 29.600 MHz

KP4NYC reports a great RF propagation opening between Puerto Rico and Morocco (South Africa).

Very strong signals reports (5/9) were interchanged between WP4KEY and CN8VY. The QSO was on 2022-05-04 at 19:23:00 UTC. It seems that 10 meters and specially frequency 29.600 MHz in FM mode is going to continue making great DX QSO's for this solar cycle possible.

If you want to see this interesting QSO please visit CN8VY YouTube channel link at https://youtu.be/0xyFIOccuao

RSGB Commonwealth Games activities

The Commonwealth Games will be held in Birmingham later this summer. It will see around 4,500 athletes from 72 nations and territories, compete in 19 sports across 14 competition venues.

The RSGB has just published news of the various activities it is planning to link with the Games. You can get involved in one of the seven special event stations or gain one of two special operating awards.

Find out more on the Society's website at www.rsgb.org/cwg

Marconi exhibition in Chelmsford showcases early broadcasting history

BBC News reports that an exhibition celebrating the inventor of radio and the world's first purpose-built radio factory opens next month.

Anglia Ruskin University (ARU) will showcase items from Guglielmo Marconi's factory, which opened in 1912 in Chelmsford, Essex.

This year marks 100 years since the world's first regular broadcasts for entertainment began from the Marconi laboratories at nearby Writtle.

The Chelmsford factory closed in 2008 and the site is now a housing estate.

Guglielmo Marconi was an Italian wireless pioneer who helped bring radio to the world.

He came to Chelmsford in 1898, at first developing machines to send messages via Morse code for ship and transatlantic communication.

After World War One, Marconi's engineers started looking at broadcasting voices and entertainment

Read the full BBC News item, with pictures at

https://www.bbc.co.uk/news/uk-england-essex-61515731

Aligning spectrum licence terms in the 3.4-3.8 GHz band

Ofcom is proposing to align the terms of licences in the 3.4-3.6 GHz and 3.6-3.8 GHz bands, to reduce potential barriers to spectrum trading between mobile network operators

Spectrum in the 3.4-3.8 GHz band is being used by the four UK mobile operators to deliver 5G services.

When this spectrum was awarded to operators through auctions in 2018 and 2021, some of it was already licensed to UK Broadband Limited.

Currently, UK Broadband’s spectrum licences in this band are subject to different terms than the other licences in the same band.

We consider that aligning licence terms and removing the disparity between UK Broadband’s licences and the auctioned licences could lead to more efficient use of spectrum.

The consultation closes on 5 July 2022, and we plan to publish our decision in September 2022.

https://www.ofcom.org.uk/consultations-and-statements/category-2/aligning-licence-terms-in-the-3.4-3.8-ghz-band

Homebrew Radio Telescope Bags Pulsar

When one mulls the possibility of detecting pulsars, to the degree that one does, thoughts turn to large dish antennas and rack upon rack of sensitive receivers, filters, and digital signal processors. But there's more than one way to catch the regular radio bursts from these celestial beacons, and if you know what you're doing, a small satellite dish and an RTL-SDR dongle will suffice.

Granted, [Job Geheniau] has had a lot of experience exploring the radio universe. His website has a long list of observations and accomplishments achieved using his "JRT", or "Job's Radio Telescope." The instrument looks like a homebrewer's dream, with a 1.9-m satellite TV dish and precision azimuth-elevation rotator. Behind the feedhorn are a pair of low-noise amplifiers and bandpass filters to massage the 1,420 MHz signal that's commonly used for radio astronomy, plus a Nooelec Smart SDR dongle and an Airspy Mini. Everything is run via remote control, as the interference is much lower with the antenna situated at his family's farm, 50 km distant from his home in The Hague.

As for the pulsar, bloodlessly named PSR B0329+54, it's a 5-million-year-old neutron star located in the constellation of Camelopardalis, about 3,500 light-years away. It's a well-characterized pulsar and pulses at a regular 0.71452 seconds, but it's generally observed with much, much larger antennas. [Job]'s write-up of the observation contains a lot of detail on the methods and software he used, and while the data is far from clear to the casual observer, it sure seems like he bagged it.

We've seen quite a few DIY radio astronomy projects before, both large and small, but this one really impresses with what it accomplished.

Source: https://hackaday.com/2022/05/25/homebrew-radio-telescope-bags-pulsar/

The Undead

Meet some of the oldest 'undead' spacecraft that are still going strong.

Not all the dead stuff in space is junk; some are true gems. Believe it or not, according to the Index of Objects Launched into Outer Space maintained by the United Nations Office for Outer Space Affairs, there were 7,389 individual satellites orbiting our little green planet at the end of April last year, 2021 (others place the number closer to 6,500).

This number is only set to increase over time, with some estimates coming in at around 990 satellites being added to the mix every single year.

More on this interesting story on

https://interestingengineering.com/oldest-undead-spacecraft

EI90IRTS

The Irish Radio Transmitters Society was founded in 1932 and this year the society celebrates its 90th birthday. To mark the occasion the society has secured the special call-sign EI90IRTS.

Since its initial use the call-sign has attracted multiple pile-ups on all bands and modes it has been used on. This call is available to activate for any EI IRTS licensed member that's interested in activating it. The special call can be activated on all bands and modes and the duration of any activation is entirely up to the operator. It can be for an hour or even a day! All logs must be submitted electronically in ADIF format.

To make sure that the call-sign is not used on the same bands or modes at the same time, the use of the call-sign is being coordinated by Declan, EI9FVB. A special WhatsApp group is in use to help with the coordination. If any fully licensed EI IRTS member would like to activate the EI90IRTS call-sign you are please asked to get in touch with Declan EI9FVB by email to horandx /at/ gmail.com .

A special QSL card will be made available, once printed. Direct QSLs can be sent to Dave, EI6AL.

For more information including QSL details please see www.qrz.com/db/EI90IRTS

OARC SOTA Activity Day June 25

The Online Amateur Radio Community is planning the activation of various summits across the UK for their SOTA Activity Day on June 25

OARC say they'll hopefully have around 10-15 OARC members on various summits across the U.K. and will attempt to net with each other on various bands as well as looking for chasers as well. This should foster more actual comms by RF between our members, rather than just via our Discord :slightly_smiling_face:

We'll all aim to be on our respective summits at 11am UTC/12pm BST, although there may be some variation of course. At first we'll try to net with each other on a local-ish basis on 2m for juicy S2S points before breaking off to work chasers. Those of us with HF kit will try to work S2S with each other on something like 40m as well for some more S2S fun before doing some HF calls for chasers later in the afternoon.

Further information at

https://reflector.sota.org.uk/t/oarc-sota-activity-day-25th-june-2022/29072

Online Amateur Radio Community

https://www.oarc.uk/
https://twitter.com/m0ouk

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	Geoff Cooper	G0KVK
	Mark Cadman	M0TCG
	Keith Dixon	M0HPY
	Ross Lewis	2E0RLX

STARLITE EDITOR	Bob Egan	G4XOM
	Email:	g4xom@g6oi.org.uk