

ISSN 3021-5641

NEW ZEALAND & AUSTRALIAN AMATEUR RADIO



VOL. 13 JULY 2026

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Les Minquiers IOTA EU-099
DX-World

NEW ZEALAND & AUSTRALIAN AMATEUR RADIO MAGAZINE

NEW ZEALAND & AUSTRALIAN AMATEUR RADIO MAGAZINE

A FREE MAGAZINE PUBLISHED BY THE HAM SHACK
AMBRIG LIMITED T/A THE HAM SHACK

Email:
ZL1GUD@proton.me

New Zealand & Australian Amateur Radio Magazine is now being sent to every amateur radio club in New Zealand and Australia ... and it's all for FREE

Our aim is to bring you inspiring stories and news of exciting activations and give you ideas to fuel your amateur radio dreams, whether it is a project, review or DX-Pedition.

New Zealand Amateur Radio magazine is free and includes Product News, International Amateur Radio News, DIY projects, Interviews, POTA and SOTA news and DX Pedition news. Club news is for the clubs and will not be included in the magazine.

If you want to be featured or have a project that you want to feature then email me the details and we will include it.

Greg
ZL1GUD

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www.thehamshack.co.nz



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All band field day

with great prizes

31st October 2026

**New hams with restricted licences
welcome.**

- **VHF, UHF & HF**
- **Multipliers for 3 bands and more**
- **Multipliers for DX stations**
- **You must be a field station**
- **You MUST send a photo of your field day station (no pic no entry)**
- **Rules will be available nearer the time.**

Sponsored by:

New Zealand & Australian Amateur Radio Magazine

**THE HAM
SHACK**





From the Editor

Half the year has gone and the early mornings confirm that winter is here, that said conditions on HF have been good and the weekend POTA scene has been very rewarding.

We have created two new contests, one "All Band Field Day" and a "Trans Tasman" event. There is still some planning to do and the rules for both events will be made public in due course.

My motivation with all these events is to grow the hobby and to put some excitement back into the hobby. You will note that for the "All Band Field Day" there will be bonus points allocated if you get a school, electronics club, local scouts or a group of that nature involved in the contest.

I have had some interesting conversations around the magazine and I do see it morphing into something that will include a range of related subjects.

The Ham Shack and magazine has also brought something to the fore that I had not considered and that is that there are lot of people out there that are lonely and the statistics from the USA suggest that for 60% of men, their only friend is their partner and therefore I believe that the socials, field days and POTA have given a lot of people a new interest.

73 Greg — Editor



Doing an activation with Norma VK2YL



A special thank you to Grant ZL1GGL for conceptualizing, planning and making this event the enormous success that it was.

Congratulations Grant & the team.



MADEIRA CT3 REPORT

It was the year 2021, a year after covid pandemic, when I moved to the island of Madeira in the Atlantic ocean. Madeira is part of the Macaronesia islands, a collection of four volcanic archipelagos in the North Atlantic Ocean, off the coast of North Africa and Europe. The islands are Madeira, Azores, Canaries and Cape Verde Islands.

Prior to this, I had spent 28 years in Porto, Portugal as CT1FFB, and before this I was ZS1AGJ in beautiful Cape Town, South Africa.

Moving into an apartment in Funchal, the capital city of Madeira, brought its antenna challenges. The condominium authorized the setting up of a wire antenna. My good friend and “antenna elmer” Victor CT1AKD, suggested I put up an end fed halfwave EFHW antenna. I ordered the EFHW-8010-2K-Plus from myantennas.com in the USA. It's the 2kW version and does all the bands 10/12/15/17/20/30/40/80 and measures 39.6m long. It comes with sturdy stainless steel hardware.

I must thank OM Ricardo Martins CT3KN for his tremendous help in helping me with the installation of my EFHW antenna. It is strung up between my building, and the twin building next door. The antenna height above the ground is about 25m.

The radio being used is my trustworthy Yaesu FT-2000, which gives me nice compliments on my audio. The linear is the SPE Expert 1K-FA capable of 1k which has served me well. So this is the setup at my CT3PH station, and am indeed grateful to be able to operate from an apartment block, after hearing about so many challenges that some hams in the same situation have.

I am especially pleased with the antennas performance on 40m and 80m. I can enjoy a long transatlantic “ragchew” with the USA on 80m. Also the SWR is good over the whole portion of the band.



Propagation tendencies: Madeira benefits from excellent maritime tropospheric ducting and Sporadic-E opening, sometimes allowing for rare 2m (144 MHz) contacts over thousands of kilometers, especially during the summer. While driving around in my car, the FM broadcast band is regularly receiving broadcasters from the Canary Islands and Morocco.

Popular Summit Activity (SOTA): Madeira is highly popular for hams who enjoy Summits on the Air (SOTA) activations. The peaks of Pico do Arieiro (CT3/MI-004), and Pico Ruivo (CT3/MI-001), are the most popular, and offer spectacular views. There is also a NATO RADAR station at Pico do Arieiro.

IOTA Activity: Madeira is a part of Portugal and thus also a part of the European Union, yet geographically located close to Africa and counts as Africa among radio DX-ers. The island of Madeira is a sought after contact in the IOTA (Islands on the Air) activity, and has the designation of IOTA-014.

Contest Stations: Madeira is a premier destination for amateur radio contesting due to its strategic geographic location (ITU Zone 33, CQ Zone 37) and exceptional propagation. The island hosts several dedicated contest call signs and state-of-the-art superstations operated by visiting elite contesters, as well as local hams.

Amateur radio, continues to be a great hobby. I cannot imagine my life without radio.

Also the tremendous friendships that I have made over the radio. This combined with living on such a beautiful like Madeira makes it all worthwhile!

Hope to hear you on the airbands soon!

73s de Tony CT3PH

Ed. I met Tony in Cape Town around 1990 and we have been friends since then. I asked him to update us on ham life in Madeira. Thanks Tony



NORTHERN CORRIDOR RADIO GROUP (NCRG)

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Hosted by the Northern Corridor Radio Group Inc.

WESTERN AUSTRALIA'S

HAMFEST 2026

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★ ★ ★



Licensed Operators • SWLs
Beginners • Makers
Electronics Enthusiasts

EVENT FEATURES



Amateur Radio Equipment



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New & Used Gear



Antennas & Accessories



Electronics & Components



Club Displays & Demonstrations



Food & Refreshments Available

EVENT DETAILS



DATE: 30TH AUGUST 2026
SUNDAY



TIME: 9:00AM – 12:00PM



VENUE: CYRIL JACKSON
RECREATION CENTRE
53 Reid Street,
Bassendean WA 6054



ENTRY: \$7.00 ENTRY FEE
Kids under 16 FREE

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1st PRIZE – VALUED AT

\$2,000

\$2,000 voucher or store credit
to spend at your choice of:



The voucher may select their preferred supplier at
the time the prize is claimed, subject to the
supplier's branded terms and product availability.

RAFFLE TICKETS & INFO: <https://rafflelink.com.au/hamfest-raffle-2026>



2nd PRIZE – VALUED AT \$925

ICOM ID-52A PLUS

VHF/UHF Digital Handheld Transceiver

- 0.61inch Colour & Full Dot Matrix
- Bluetooth® Connectivity
- GPS Positioning
- Colour Display
- IP67 Waterproof

Includes various supplied
accessories from the manufacturer.
No prizeable alternatives are.



3rd PRIZE – VALUED AT \$360

ICOM IC-T10

VHF/UHF Dual Band FM
Handheld Transceiver

- SW RF Output
- VHF 136–174MHz recv/d
- UHF 400–520MHz recv/d
- FM Broadcast Receiver
- Up to 11 Hours Operating Time

Includes various supplied accessories
from the manufacturer.
No available alternatives are.

For product: icomjapan.com.au/products/IC-T10/



4th PRIZE – VALUED AT \$150

\$150 COMTEK RADIO VOUCHER

Redeemable through
Comtek Radio Communications Australian
The voucher may be used towards the future purchase of
amateur radio equipment and accessories.



RAFFLE TICKETS & INFO

VISIT: <https://rafflelink.com.au/hamfest-raffle-2026>





I have been fighting for this opportunity since 2018. Through these years the department directors changed and the requirements changed as well and it always ended up that there was no place for me on the ship. In 2025, I decided to try for one last time and in January and March I flew to South Africa for personal meetings with the new department leadership. On 1st of April, I received a message from Environmental Affairs Department of the Republic of South Africa that I have been included in the team going to Marion Island as a communications engineer.

[READ THE FULL STORY HERE](#)

*During the Marion Island DXpedition, the ZS8W DXpedition website was turned off. Here at DX-World, we managed to update as best we could with sometimes limited info, and occasionally with input directly from Yuris. Scroll below to refresh your memory how this exciting DXpedition unfolded.

[JUNE 20]

If you did not already know, the ZS8W website is back up and running – click on the picture below to visit. Meanwhile, the activity has been approved for DXCC credit. Full LoTW upload will be completed on August 15th.

[JUNE 13]

Yuris, YL2GM gives an update to say he plans to send out all ZS8W OQRS direct requests in June, as postage rates are increasing starting July. You can order here. The official ZS8W expedition website will be opened back up on June 15th. LoTW uploads starting mid-August.

Meanwhile, also in July, Yuris will start planning a new DXpedition – destination so far unknown. New pictures below courtesy YL2GM.

[JUNE 3]

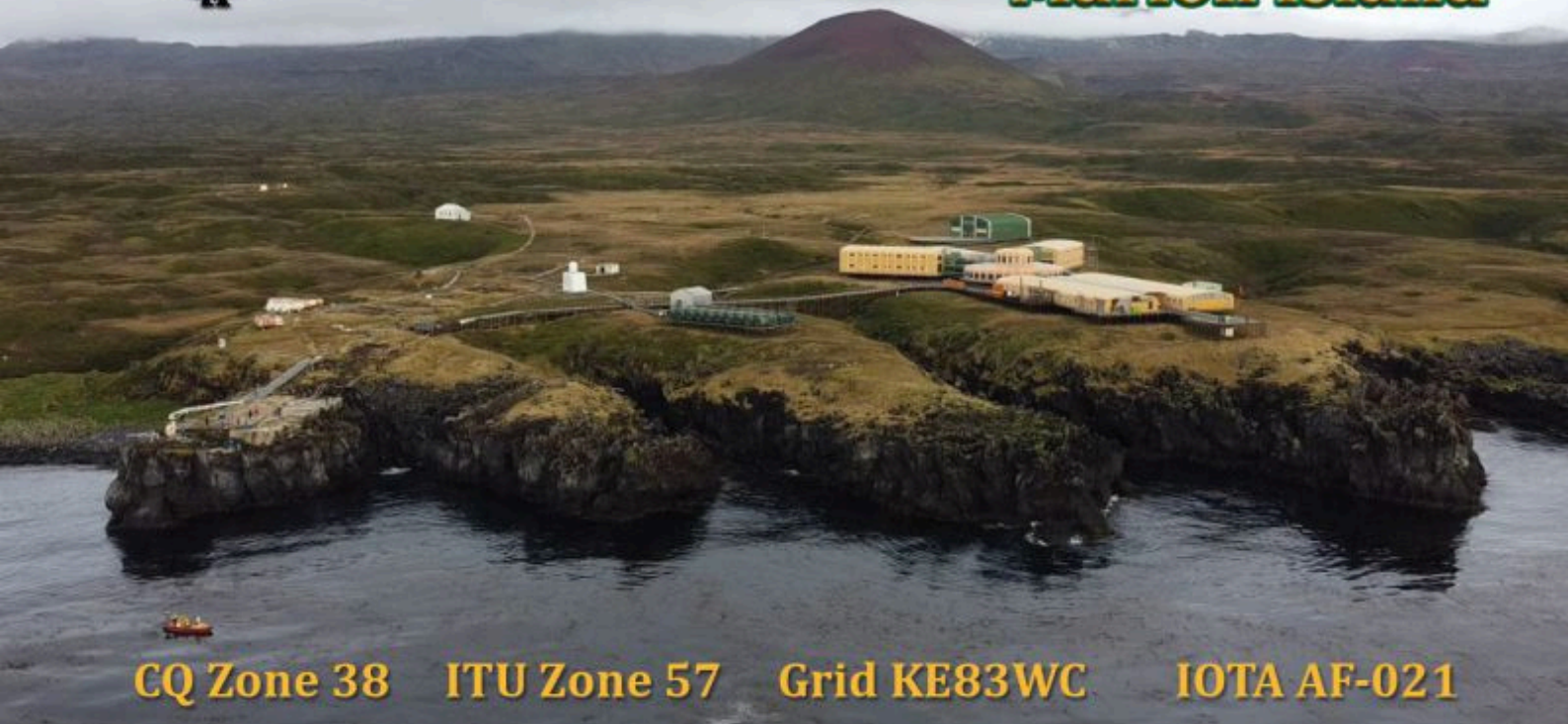
Yuris, YL2GM / **ZS8W** has submitted all documentation to ARRL DXCC and is awaiting approval. Meantime, he has requested a LoTW certificate and is planning to upload QSOs [to there] after June 15th. QSL cards have also been received from the printer.

[Click on text for link](#)





ZS8W
Marion Island



CQ Zone 38 ITU Zone 57 Grid KE83WC IOTA AF-021



RADIO LIFE by Pete Leng

I suppose radios have always been with me. My dad was in the Royal Air Force in the early 1950's as a comms technician. His job was to maintain hf transmitters in Egypt and Sudan during the Suez Crisis. He will talk to me about what he used to do, how the antennas and equipment worked, it all sounded very exciting.

At secondary school, I became friendly with a boy in my class, Neil, and his dad was a radio ham. We used to chat about radio's etc, and he told me about all these different foreign stations he could hear on his little transistor radio, at night on medium wave. Well, that was it, I wanted a bit of that action, and what was even better, reception improved after my bed time! Off I would go to bed, then turn on the pocket transistor, pop in the wired earpiece, and listen till the wee small hours. At that time the American Forces Network in Germany used to come in very well, and many of the English language services of foreign broadcast stations were still on MW.

In 1980, when I was 17, I joined the Territorial Army, in the infantry. On one training exercise, I fell in a hole, full kit on and tore all the ligaments in one of my ankles. I was no use as an infantryman, so they put me into the comms vehicle for the remainder of the exercise. This was an absolute lightbulb moment for me. I could get paid to play with radio' !!! As an additional bonus, it was part of the Company HQ, I didn't have to cook my own food, I had some cover over me (much better than being in a slit trench), it was relatively warm, I had somewhere to put my kit and so long as the radio was working, no-one bothered you. Even at 17, I could recognise it was a good job for me.





In went my request to move to the comms section, and back came the rejection! However, each platoon commander had a radio operator, so I was now a trainee combat signaller. In those days we were using the Larkspur series of radio, mainly the A41. It was a 10 kg, VHF, valve, instrument of torture, outputting about 1w of raw power. I say instrument of torture, because the set was sat on a frame, with a shoulder harness and a support at the base of the frame. Unfortunately, the lower back support of the frame was made to fit a child. All the radio ops had experienced the joy of the frame digging into their kidneys at some time or other. On the plus side, I was young, and carting the A41, I was fit as a butcher's dog.

After a year or so, I found that the signals side of things was much more fun than the infantry side, so I transferred to the Royal Signals. Again we were still using Larkspur equipment. It was the height of the cold war and our role was to provide communications if there was a nuclear strike on the UK. We used mainly C11 and R210 tx/rx sets. We were regularly jammed by units from the Warsaw Pact nations, and using those old valved "seperates" especially keeping them on frequency, really was an art form.





In 1985 I transferred to the Royal Military Police, and our unit was attached to the United Kingdom Mobile Force, deploying to Denmark or Germany. With my signals background, I was almost immediately put on a course and made a company signaller, and then regimental signals instructor. My job outside the TA was as a telephone engineer. I was pretty much left alone to sort out the radio's and phones for the next 15 years.

At Telecom, there were quite a few hams, and in 1986 I took the Radio Amateurs Exam I passed and was allocated the call G1SVC, a vhf licence. My first radio was the Yaesu FT290 mk1. It was all mode, and in those days, on ssb, there were literally hundreds of stations on. I lived to the west of London, and would regularly work into France, Belgium, Netherlands and Germany during lift conditions.

I had started cw in the Royal Signals, and in about 1990, decided to take the CW test. I passed and was allocated G0SVO. In one of those strange coincidences, Neil, my friend from school, took his cw test about the same time and was allocated G0SVN. I then focused mainly on hf for a few years. Like many hams, I had a few years break, then moved to Lincolnshire. My interest in radio reignited, and with a quarter acre garden, I was able to get a decent wire antenna up.

I moved to New Zealand in 2008, and the callsign ZL4TE was available. I had been away for cw for some time, but thought it would be an easy call to send if I went back to cw and it is my main call. I also hold ZL3EI, which I use on data modes. I am of Irish extraction, and pre CEPT had the visitor call sign EI3VTF, so ZL3EI is a really special call for me.

For the past 5 years, my main interest has been hf cw. I rattle along at about 18wpm, and I'm happy with that. I love the fact that I don't find it easy, and it keeps me really focussed on what I'm doing. This fits well with activating / hunting pota/wwff parks. If the bands are poor I may operate some digital, but it is not my preferred mode. I rarely operate hf ssb.

I really enjoy travel, which I try to combine with pota/wwff. I have activated parks in Australia, Samoa and Albania. I'm also currently building a QRP lab QMX+ for pota.



VPOSG DXPEDITION TO SOUTH GEORGIA ISLAND IN MARCH 2027



VPOSG is a multinational amateur radio expedition planned for March 2027 to South Georgia island, one of the most wanted DXCC entities. An experienced team will operate from a temporary low-impact camp for 12–14 days on CW, SSB, and digital modes, aiming for around 100,000 QSOs and worldwide coverage, while ensuring full environmental compliance and supporting the next generation of operators.

VPOSG is a multinational amateur radio expedition planned for March 2027 to South Georgia, one of the most sought-after DXCC entities. Organized by Amateur Radio DXpeditions (ARD), the team of experienced operators will establish a temporary, low-impact camp and operate for 12–14 days using multiple stations on CW, SSB, and digital modes, including the first FT8 activity from the island.

The expedition combines complex logistics, strict environmental compliance, and advanced radio techniques to deliver global coverage, with a target of around 100,000 QSOs.

VPOSG also places strong emphasis on mentoring the next generation by integrating three young operators into the team. We will spend time to talk about this great initiative to bring a younger generation to go on the field.

Erwann LB1QI

Erwann, LB1QI, is an experienced Ham operator and an active contributor to the international DXpedition community. He serves as a board member of ARD, a Norwegian-based non-profit organization dedicated to supporting amateur radio activities and initiatives.

He is co-leader of the upcoming VPOSG DXpedition to South Georgia Island (2027) and he previously held key leadership roles as co-leader of the 3Y0J Bouvet Island DXpedition and JW0W (EU-063), both recognized for their technical and logistical challenges.

His DXpedition experience spans decades, including participation in operations such as FR/F6KDF/T to Tromelin Island in 2000, among others. In addition to field operations, Erwann is an active contester, regularly participating in both SSB and CW contests.

Violetta Latham

Violetta was first licensed in 2014 as KM4ATT at the age of 9. Encouraged by the many other hams in her family, she earned her General and Extra Class licenses by the age of 10. Challenged by her father, W3SML, to work DXCC in a year with no internet or access to spotting networks, she quickly became intrigued with working DX and earned her first HF radio, the Yaesu FT950D, which she still uses today. She later received the vanity call of KN2P.

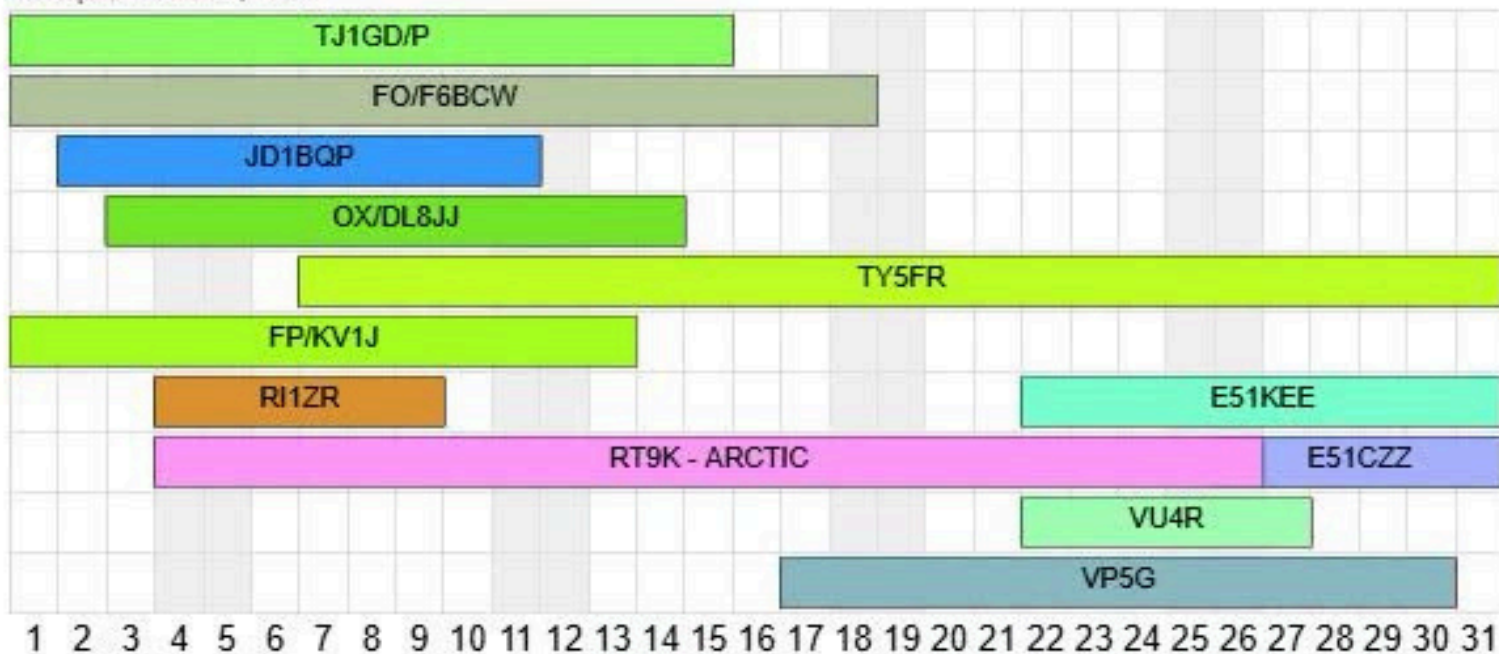
Violetta operated in her first multi-multi contest from W3LPL in 2018 and began planning an all-youth multi operation. In 2019, K3LR hosted 6 young operators, Team Exuberance, for the WPX SSB. The youth doubled their QSO goal, and the raw claimed score set a new W3 record. Violetta has continued honing her contesting skills, operating from stations such as PJ2T, J62K, K0RF, and HQ9X.

Violetta was an operator on the E51MWA team to the North Cook Islands in 2025, and is set to join the DXpedition to ZK3 Tokelau in 2026, as well as the VPOSG South Georgia team in 2027. As a commercial pilot and flight instructor, Violetta is working towards a career as a corporate pilot.



DX WORLD.net FEATURED DXPEDITIONS TIMELINE

Last update: June 24, 2026



Edited by MM0NDX

JULY

(cc) IK8LOV Max Laconca

HFOPAS – SOUTH SHETLAND ISLANDS



by Rafal, HF0PAS.
During work on installing the 3.5 and 7 MHz antennas, mechanical damage was discovered. Dismantling the antennas was the only reasonable decision. The 60mm aluminum (military) tubes were not suitable.

Rafal, SQ4O informs that all going well, he will try to be active as HF0PAS from the Henryk Arctowski Polish Antarctic Station, King George Island, South Shetland Islands after May. He will remain there until October 2026. News updates will posted on the HF0PAS QRZ [page](#).



Courtesy of DXworld.net



In nearly 20 years of DX-World, not sure we can remember such a quiet period of DX / Dxpedititions. July appears quiet too..



VENEZUELA EMERGENCY

Powerful earthquakes reported

Any YV stations or hams in Venezuela, please advise if emergency communications support is needed.

If we can assist, we will get on the air to help.

Please share any verified information or urgent needs.

AMATEUR RADIO COMMUNICATIONS

IARU REGION 3 EMERGENCY COMMUNICATIONS ADVISORY

Protection of Emergency Frequency Following Major Earthquake in Venezuela

25 June 2026

According to information received from the Venezuelan Radio Club National Emergency Network and IARU Region 2 Emergency Communications Coordinator, Venezuelan radio amateurs have activated emergency communications operations on HF and digital modes to support ongoing response and coordination efforts.

In support of these emergency communications activities, IARU Region 3 respectfully requests all Member Societies to advise their members to avoid transmitting on, or causing interference to, the following emergency frequency whenever possible:

7.135 MHz (40-metre band)

This frequency is currently being utilized for emergency communications traffic related to the earthquake response in Venezuela.

Thank you for your cooperation.

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You'll go higher with

 **spiderbeam**
high performance lightweight antennas and masts



WHEN YOU ARE SERIOUS ABOUT DX

**A BIG CONSIGNMENT OF SPIDERBEAM ANTENNAS HAS
JUST ARRIVED FROM GERMANY**

NEW ZEALAND OFFICIAL AGENTS

- 3 Band Yagi's 10m, 15m & 20m Kit
- 3 Band Yagi's 10m, 15m & 20m Pre-assembled
- 5 Band Yagi's 10m, 12, 15m, 17m & 20m Kit
- 5 Band Yagi's Pre-assembled
- 5 Band Yagi's Portable Pre-assembled
- 40m add on (use with Spiderbeam yagis)
- GOPAK 12m mast and 404 7 band antenna
- 404 7 band antenna & 807 9 band antenna
- 12m Masts with collars
- 10m Masts
- Mast bags



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HF COMPETITION
21ST NOVEMBER 2026



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3MHz - 30MHz



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ALL MODES
ALL LICENSED OPERATORS
WELCOME



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COMPETE
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BRIDGE THE DISTANCE
SHARE THE PASSION



GREAT PRIZES
NATIONAL PRIDE
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AMATEUR RADIO



REAL PEOPLE. REAL RADIO. REAL CONNECTIONS.



ITU Corporation has purchased several key brands and assets from MFJ Enterprises.

According to reports from April and June 2026, the acquisition occurred in stages following MFJ's decision to cease on-site production in Starkville, Mississippi. The details of the purchase are summarized below:

April 15, 2026

Hy-Gain and Cushcraft

ITU Corp acquired the designs, tooling, specialized equipment, manufacturing, and marketing rights for these iconic antenna and rotator brands.

June 9, 2026

Ameritron and Mirage

ITU Corp expanded its acquisition to include the Ameritron and Mirage RF amplifier brands.

Key Developments:

Manufacturing Move: ITU Corporation, based in Indiana, is centralizing the production of these brands at a newly acquired 15-acre facility in Linton, Indiana (a former National Guard Armory).

Company Strategy: This move is seen as a way to preserve these legendary amateur radio brands and bring their manufacturing back to a centralized U.S. location after MFJ's restructuring.

Headquarters: ITU Corporation is headquartered in Dugger, Indiana, and is led by CEO Samir Khayat.

While ITU Corp did not purchase MFJ Enterprises as a whole (which remains a separate entity that ceased its own manufacturing), they have effectively taken over the most prominent product lines that were previously under the MFJ umbrella.

ACTIVATIONS

Photographs used with permission of
FaceBook page owner/admin



Lake Matahina







WESTLAKES

— AMATEUR RADIO CLUB —

FIELD DAY

SUNDAY 18TH OCTOBER 2026



BBQ

BREAKFAST AND
LUNCH AVAILABLE



7AM SET UP
FOR 8AM OPENING



FREE ENTRY



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RAFFLE**



COFFEE VAN



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FOR MORE INFORMATION

0249581588



HF Band Conditions Forecast: July 2026

We are now well past the peak of Solar Cycle 25. The 365-day smoothed sunspot number reached its maximum back on 11–12 October 2024, and solar activity appears to have exited the solar max phase as of February 2026, with a strong decrease in the number of sunspots observed. The 81-day average solar flux has fallen to around 125.8 — still respectable, but a clear step down from the highs of late 2024. The northern polar magnetic field has weakened considerably over recent months, which is one of the leading indicators forecasters watch when judging how quickly a cycle is winding down.

80m and 40m remain the most dependable bands this month. Lower bands like 20m and 40m will still be effective even as the cycle declines, and with winter approaching in the Southern Hemisphere, expect strong night-time conditions on 40m for NZ–Australia and trans-Tasman contacts, with reasonable DX windows around dawn and dusk grey-line periods.

20m continues to be the workhorse daytime DX band and should remain solid through July, supported by current flux levels.

15m and 17m will be more day-dependent and less reliable than during 2023–2024, opening mainly around midday on better flux days.

10m and 6m — watch for Sporadic-E. This is genuinely good news for the higher bands in July, independent of the declining solar cycle. Sporadic E season runs May through August, bringing unexpected long-distance openings on 6m and 10m that are unrelated to the solar cycle, and June–July is the peak season, with the potential for transatlantic openings if conditions align. Es is caused by intense, localised patches of ionisation in the E-layer, and a well-placed cloud between two stations can produce extremely strong, short-duration openings — S9+ signals from a station 1200 miles away with no warning at all. Sporadic E openings on 6m are particularly common during the Northern Hemisphere summer months, so North American and European operators should keep 10m and 6m monitored through the month, even on otherwise quiet flux days.

A secondary boost: meteor activity picks up significantly after 15 July, giving meteor-scatter enthusiasts on 6m and 2m an additional reason to be active in the back half of the month.

Geomagnetic outlook: geomagnetic activity has been somewhat enhanced following events in November 2025 and January 2026, and elevated Ap-index values are expected to persist at current levels for some months — a reminder to check the K-index before a big DX push, as the occasional disturbed day will knock out the higher bands and add noise to the lower ones.

Bottom line for July 2026: lead with 40m and 20m for reliable contacts, treat 15m as a bonus on good days, and keep half an eye on 10m and 6m all month — Sporadic-E could hand you a surprise opening regardless of what the solar flux number says. 73 de The Ham Shack 📡

WORLD CUP 2026 SPECIAL EVENT STATIONS

To celebrate the 2026 World Soccer Tournament, amateur radio operators across the United States, Canada, and Mexico are on the air with a series of special event stations.

Running from 11 June to 19 July 2026, stations in each of the 16 host cities are using unique commemorative callsigns and are active across a range of HF bands and modes, including SSB, CW, FT8, and other digital modes.

This is a great opportunity for DXers and award hunters to add some unique contacts to their logbooks. Many of the stations are offering certificates and awards for working multiple host cities, making it an enjoyable challenge throughout the tournament.

If you're active on the HF bands over the coming weeks, keep an ear out for these special event stations and see how many you can work.

For more information, participating callsigns, operating schedules, and award details, visit:
<https://wc2026ses.org/>

NEW ANNUAL VERIFICATION PROCESS BY RADIOID.NET

New Annual Verification process by RadiolD.net

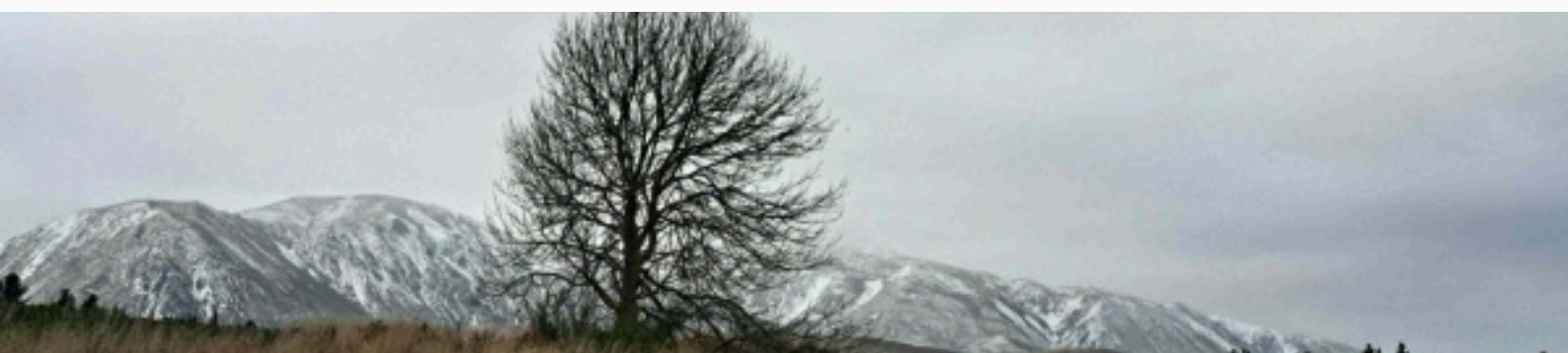
The ID numbers used for DMR and other amateur radio digital networks are a finite resource. Due to the growing popularity of these modes, along with some users requiring multiple IDs, certain regions are expected to face ID shortages in the near future.

To help ensure that available IDs are being used efficiently, the organization in charge of maintaining the ID database will periodically verify that currently assigned IDs are still needed and that the information associated with them remains accurate.

Beginning July 1, 2026, RadiolD.net will implement an annual verification process. On the anniversary of each account's creation, it will send an email to the account holder requesting confirmation that the assigned ID(s) are still needed and that the account information remains accurate and up to date.

If no confirmation is received, the associated ID(s) will be temporarily deactivated. If RadiolD.net is unable to obtain a response after a reasonable period, the ID(s) will be removed from the database and made available for reassignment. This process is intended to preserve the long-term availability of ID numbers and maintain an accurate database for the amateur radio community.

If you have any questions or concerns regarding this process, please contact RadiolD through their support page.





On the Air, On the Frontier: BAREC's Gredgwin Remote Station

By Neil Patton, VK3ZVX - President BAREC

Boort, Victoria — In a bold step that redefines amateur radio capabilities in Australia, the Bendigo Amateur Radio and Electronics Club (BAREC) has transformed a former television relay site into one of the country's most advanced remote ham radio facilities.

In August 2025, BAREC officially acquired the decommissioned Gredgwin television relay station — located roughly 100 km northwest of Bendigo, near Boort — setting the stage for next-generation remote operations and community communications infrastructure.

A New Base for Remote Operation

The Gredgwin site's remote rural location delivers exceptionally low levels of man-made electrical noise (QRM), a rare asset for radio operations.

It sits amid cropping and grazing land on the Murray River floodplain, giving it a near-pristine RF environment. This location makes it ideal for both experimental and practical RF work.



Left: The Gredgwin Station as it appeared in 2025



Right: Now serving the amateur radio community in 2026.

Internet-Accessible SDR

BAREC's first deployment at the site was an internet accessible KiWi SDR (Software Defined Radio).

Operators in urban areas can log in remotely and enjoy low-noise reception straight from this high-performance site — a significant boon for members and shortwave aficionados alike.

Remote Transceiver and Rotatable Beam

Trials are now underway on the fully remote-controlled transceiver system built around Flex Radio technology.

The new station will function with legal transmit power and utilize rotatable Yagi antenna arrays mounted about 50 m above ground, enabling solid communications across the world on the 40m, 20m, 15m, 10m & 6m bands.

BAREC made this capability available to members in early 2026.



02Feb2026: A complex and carefully planned operation with a 70m crane



Riggers: Heath VK3TWO and Neil VK3ZVX

Community Service and Emergency Preparedness

BAREC's vision for Gredgwin extends beyond hobby operations. The club has plans for MeshCore and UHF Citizens Band facilities that will bolster communications for Murray River communities, particularly when conventional networks falter during floods or other emergencies.

The 50 m tower, with its ~100 km UHF horizon, also presents opportunities to support automated agriculture, GPS augmentation, and other community-oriented services that benefit from robust radio links.

The People Behind the Project

BAREC's committee and volunteers are the engine behind this achievement. Key figures involved in club operations and the Gredgwin project include:

Neil Patton – VK3ZVX, President
Andrea Wilson – VK3GOW, Vice-President
Don Butler – VK3PDB, Secretary
Phil Rice – VK3BHR, Treasurer
Graeme Knight – VK3GRK, Media Officer
Craig Terry – VK3KLI, AV
Mike Tobin - VK3AHA
Col Herbert – VK3GTV
Colin Lelean – VK3CWL
Ben Thompson – VK3FBLT
Mark Bruechert – VK3PDG

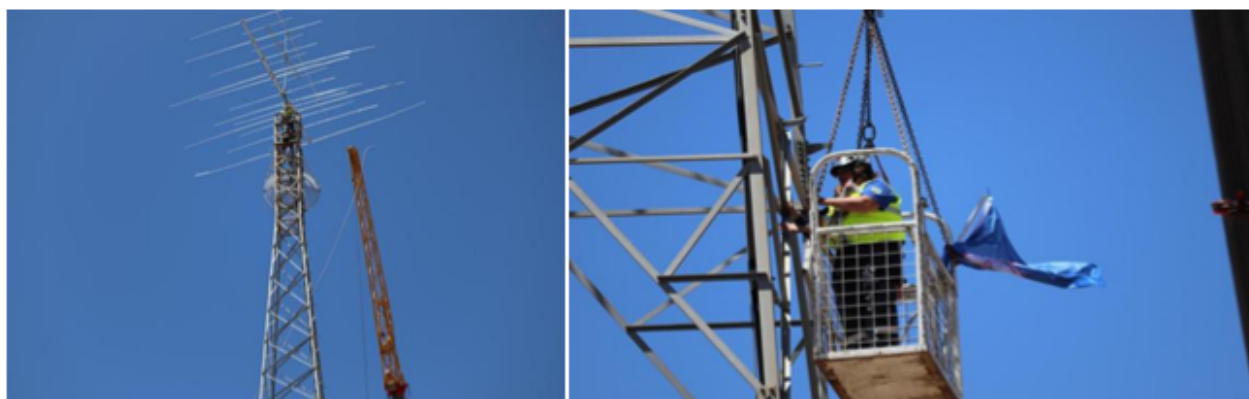
Their sustained efforts in both club administration and technical implementation have been pivotal in realising the Gredgwin site's potential.

Looking Forward

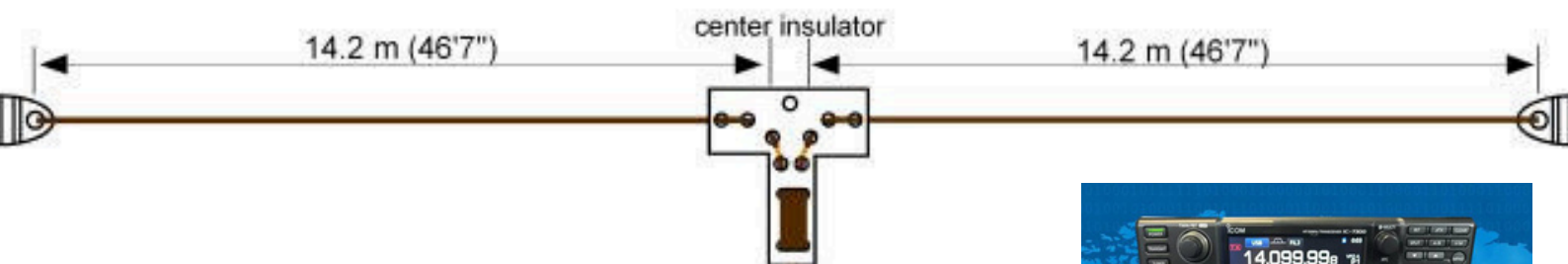
BAREC's Gredgwin initiative exemplifies the innovative spirit of the amateur radio community — blending traditional radio practice with modern remote operation technologies.

As the remote transceiver becomes fully operational, club members and the broader amateur radio community will gain access to a high-performance station capable of serving varied interests, from HF DXing to emergency communication support.

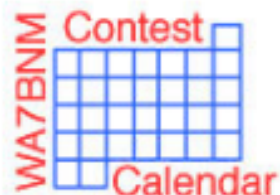
For more on BAREC's activities and how to connect to the Gredgwin SDR or join the club, visit barec.net.au.



BAREC Vice-President Andrea VK3GOW fitting the control cabling.



COMPETITION CALENDAR



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Competition consol
for the Icom IC 7300
available from
www.thehamshack.co.nz

NZART Memorial Contest: 0800Z-0859Z, Jul 4 and 0900Z-0959Z, Jul 4 and 1000Z-1059Z, Jul 4

Status:	Active historically, but unconfirmed
Geographic Focus:	VK/ZL/S.Pacific
Participation:	Worldwide
Mode:	CW, SSB
Bands:	80m Only
Classes:	Single-Op (CW/SSB/Mixed) Multi-Op (CW/SSB/Mixed)
Max power:	100 watts
Exchange:	RS(T) + Serial No.
Work stations:	Once per mode per period
QSO Points:	1 point per SSB QSO 2 points per CW QSO
Multipliers:	Each ZL, VK or South Pacific prefix once per mode
Score Calculation:	Total score = total QSO points x total mults
Submit logs by:	July 31, 2026
E-mail logs to:	contests[at]nzart[dot]org[dot]nz
Mail logs to:	NZART Contest Manager 38A Sneyd Street Kaiapoi 7630 New Zealand
Find rules at:	https://www.nzart.org.nz/activities/contests/memorial-contest/

Marconi Memorial HF Contest: 1400Z, Jul 4 to 1400Z, Jul 5

Geographic Focus:	Worldwide
Participation:	Worldwide
Mode:	CW
Bands:	160, 80, 40, 20, 15, 10m
Classes:	Single Op All Band (QRP/Low/High) Single Op Single Band (High) Multi-Op
Max power:	HP: >100 watts LP: 100 watts QRP: 5 watts
Exchange:	RST + Serial No.
QSO Points:	1 point per QSO
Multipliers:	Each CQWW country once per band
Score Calculation:	Total score = total QSO points x total mults
Submit logs by:	1400Z July 19, 2026
E-mail logs to:	(none)
Upload log at:	http://www.arifano.it/uplog.php
Mail logs to:	(none)
Find rules at:	http://www.arifano.it/contest_marconi.html



Thank you so much for participating in the **POTAHOLICS MID-WINTER 30 EVENT** for **2026**



Potaholics Midwinter 30: Turning Cold Air into Contacts

On Sunday, June 28, operators across New Zealand stepped into the cold for one of the more quietly unique events on the amateur radio calendar — the Potaholics Midwinter 30. Running from 9:00am through to 9:00pm, the goal was simple: make 30 voice contacts. But like most things in midwinter, simple didn't mean easy.

An Early Start

For some, the day started well before the official kickoff.

Doug and I were set up by 8:30am, stations ready and eyes already on the bands. Even before the clock ticked over, it was clear something was happening. A quick look at the SDR told the story — signals popping up across the spectrum, activity building, and the unmistakable buzz of an event already coming to life.

We initially started with a vertical antenna, but fairly quickly made a switch to a dipole, which proved to be noticeably quieter and more effective for our setup. The noise floor dropped, signals became easier to copy, and it immediately improved the overall rhythm of the day.

From there, we made a call early on: hunt and pounce. Moving around the bands, picking up activations as they came, and working stations as conditions allowed.

Working 40 Metres

We chose to concentrate on 40 metres, and it proved to be the right call.

Throughout the day, we spoke to stations all up and down the country, most coming in very, very strong. Even as conditions shifted, the band held up well enough to keep the log ticking over. Signals would rise and fall, but there was always something solid to work if you stayed patient and kept moving.

Focusing on a single band also sharpened the approach — less time chasing marginal openings elsewhere, more time actually making contacts.

The Wall at 26

For a while, things flowed.

Contacts came steadily, the log filled up, and the rhythm of the day settled in. But as often happens, the last stretch proved to be the hardest. We hit 26 contacts—and then it slowed right down.

What had been relatively straightforward suddenly turned into a grind. Calls went unanswered, signals were weaker, and finding fresh stations took real effort. The last six contacts took close to an hour, working the band carefully and picking off whatever opportunities appeared.

It was a reminder that the “easy” part of an event can disappear quickly, especially in midwinter conditions.

But eventually, one by one, the contacts came. And with that, the 30 was done.

On-Air Camaraderie

Despite the cold and the challenge, there's a noticeable tone during events like this. Operators are there to make contacts, but also to support the activity as a whole.

You hear it in the exchanges — a bit more patience, a bit more encouragement, and a shared understanding that everyone is working through the same conditions.

Whether activating or hunting, everyone contributes to the momentum.

More Than Just Contacts

While the “30” is the benchmark, it's not really the point.

The real value comes from showing up, getting on air, and being part of something happening in real time. Watching the SDR light up, hearing familiar callsigns, and knowing that across the country others are doing the same thing — in parks, shacks, and portable setups.

It builds a quiet sense of connection that goes beyond the logbook.



Closing the Event

By the end of the day, the event was a great success, and we're already looking forward to the summer version.

Operating from Lake Karapiro (ZL/L-0395), we also took the opportunity to engage with members of the public throughout the day. It became more than just an operating event — a chance to explain what amateur radio is, how it works, and why it still matters.

That outreach paid off directly, with one member of the public now actively signing up for a ham cram weekend to begin their journey toward licensing. To round things out, I was even able to complete a CW contact to close the event — a fitting final touch after a full day on the air.

Whether in the depths of winter or the warmth of longer days, the same spirit applies: get on air, make contacts, and enjoy the process.

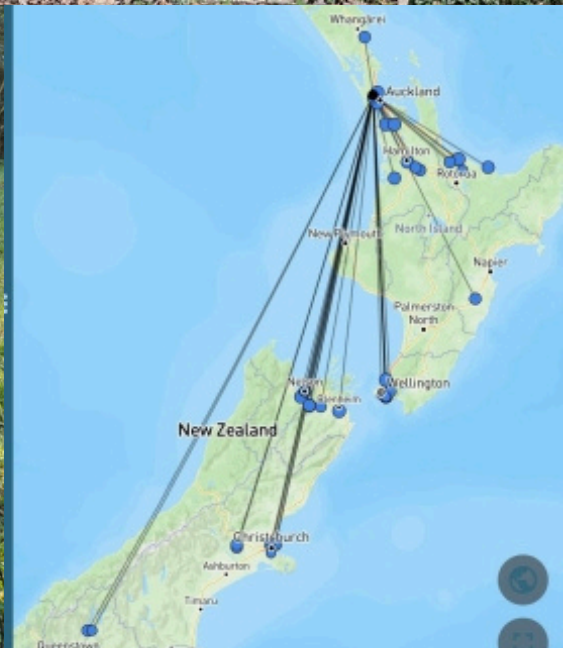
Simple, effective, and built on participation.

Regards

Don
ZL1DRS

PICS FROM ZL2NEB, ZL1KLF, ZL1DRS, ZL1JDR, ZL4AT, ZL1DBH, ZL1HIM





WHEN YOU WANT YAESU IN NEW ZEALAND!

My first HF rig was a Yaesu, and that was almost 40 years ago and so when I wanted a top of the line radio I considered both brands but most reviews and the Sherwood report took me back to Yaesu.

When looking around on Google I found a website that lists products that were discontinued 6 years ago and so I decided to support Andrews Communications in Sydney NSW. I had been into the store a number of times when visiting my daughter, and so contacted them for a price and availability on the Yaesu FTDX101D.

I had a response within an hour. They sent me the box dimension and weight so that I could pass it onto my courier. (they can also arrange a courier but since I have a Fedex account it was cheaper using my courier). Within 24 hours I had paid the invoice and within 36 hours the radio had been collected by Fedex and two working days later I had the radio in the shack.

There are great CASH BACK deals on Yaesu at the moment.

YAESU
The radio

New YAESU Instant Cashback!

FTDX-101MP...A\$250 Cashback

FTDX-101D...A\$250 Cashback

FTDX-10...A\$150 Cashback

FT-710 AESS...A\$150 Cashback

FT-710 Field...A\$150 Cashback

FTX-1 Optima...A\$150 Cashback

FTX-1 Field...A\$150 Cashback

FT-5DR...A\$50 Cashback

Cashback Promotion amounts apply to new sales of above radios from March 28 to June 30, 2026. Yaesu Cashback applies to Australian & NZ sales. Name & address required by Yaesu for Cashback.

Remember the following:

- You pay the retail price less the OZ tax
- You will pay courier costs
- In NZ you will pay GST and clearing fees
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- A radio dealer license number



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Speak to Luke or Lee for amazing service

Find Your Antenna Faults Fast — the RigExpert Stick Range

This month, Electrotest is shining the spotlight on the RigExpert Stick family, four pocket-sized vector antenna and cable analysers, built for HAMs who want fast, accurate answers in the shack, on the tower, or out in the field. Whether you are checking SWR on a new dipole, tuning a multiband vertical, or hunting down a dodgy feedline before a contest, there is a Stick built for the job. Every model in the range shares the same rugged, pocketable design philosophy, so the choice really comes down to how far up the band plan you need to go, and how much extra firepower you want in your hand.



Why HAMs Are Choosing the Stick Range

The Stick range was built around one idea: a serious antenna analyser should not need a workbench, a mains lead, or a degree in menu-diving to use. Each unit is small enough to slip into a jacket pocket, tough enough to survive a wet mast-head session, and simple enough to run from a handful of buttons.

- **Genuinely portable** — all four models measure just 185 x 40 x 33 mm and weigh 185 g with the battery fitted, so they travel easily to field days, Summits on the Air activations, and DXpeditions.
- **All-day battery life** — every Stick runs for up to 16 hours of continuous measurement from a single 18650 lithium-ion cell, with a full recharge in around three hours via USB.
- **Built for the weather** — splash and dustproof housings mean a passing shower on the tower will not end your tuning session.
- **Wireless control** — Bluetooth BLE connectivity links every model to the free AntScope2 app for Windows, macOS and Linux, so you can view sweeps, save charts and update firmware without trailing cables.
- **Backed by RigExpertCare** — every Stick analyser carries two years of RigExpertCare cover, with free service or replacement should a hidden defect appear, after each unit has already passed RigExpert's four-stage quality control.
- **Wide application** — the range is equally at home in amateur radio, commercial radio, telecom and field communication work, covering antenna and feedline checks as well as measurement of cables, filters and other RF systems.

The Four Models



Stick 230 — the Lightweight All-Rounder

The Stick 230 covers 0.1 to 230 MHz, making it a natural fit for HF operators and anyone working 6m, 4m or 2m. It was the world's first antenna analyser capable of 16 hours of continuous measurement without a recharge, and it keeps things simple with a high-contrast monochrome E Ink display, a UHF (SO-239) connector, and a Multi mode for quickly checking multiband antennas across several bands in one pass. For the HAM whose world is HF and the lower VHF bands, this is the natural starting point in the range.



Stick 500 — Reaching into UHF

Take the same trusted platform and stretch the ceiling to 500 MHz, and you have the Stick 500. It adds a dedicated HAM display mode for fast single-band checks alongside the Multi mode for multiband work, plus an OSL calibration mode for more precise measurements. With coverage running cleanly through 2m and into the UHF amateur and commercial bands, it is the obvious choice for anyone maintaining VHF/UHF antennas, repeaters, or commercial RF systems alongside their HF station.



Stick Pro — Sharper Readings, Bigger Picture

The Stick Pro pushes coverage out to 600 MHz and swaps the E Ink screen for a 290 x 220 colour TFT display, making sweeps, SWR charts and Smith-style readings far easier to read at a glance, whether you are stood at the base of a mast in bright sunlight or working at the bench. It moves up to an N-type RF connector (with an N-to-UHF adapter included in the box), reflecting its readiness for more demanding antenna, cable and filter work both at home and in the field.



Stick XPro — the Flagship

At the top of the range, the Stick XPro runs the full 0.1 to 1000 MHz and adds the tools that serious antenna engineers and field technicians ask for: a Time Domain Reflectometer (TDR) mode for locating the distance to a fault in a cable run, and a dedicated set of cable tools covering stub tuner design, cable length, impedance and loss measurements. It carries factory calibration, a wider -20 to 55°C operating range for harsher fieldwork, and the same 220 x 220 colour TFT display family as the Stick Pro. For anyone chasing 70cm, working commercial UHF, or simply wanting the broadest, most capable tool in the range, the XPro is the one to have on the bench.



What's in the Box

Every Stick analyser ships ready to use. The Stick 230 and Stick 500 include a lanyard, quick-start guide and USB cable. The Stick Pro and Stick XPro add a neck strap, quick-start guide, USB cable and an N-type to UHF adapter, reflecting their N-type connectors. All four are covered by RigExpertCare for two years from the date of purchase.

Why You Need the Stick Range

If you are still running a borrowed analyser, an ageing unit that has seen better days, or simply eyeballing your SWR on the radio's built-in meter, the Stick range is worth the upgrade. You get genuine accuracy across the full HF, VHF and UHF bands, a tough little unit that will happily live in your go-bag, and enough battery life to outlast a full day of antenna work without once reaching for a charger. Add two years of RigExpertCare cover, free wireless logging through AntScope2, and a model to suit every budget and band plan, and there is very little reason not to have one in the shack. Get in touch with Electrotest today, quote your callsign, and put your antenna system to the test.

Electrotest +6494482600 info@electrotest.co.nz www.electrotest.co.nz

Available now from Electrotest Ltd. Specifications correct at time of going to press and subject to change without notice.

**The Bendigo RadioFest
Sunday October 11th
BAREC clubrooms
36 Lansell St., East Bendigo**



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Weekly Newsletter

Something for the weekend

[click for link](#)



Ham Radio Amplifiers | What To Know Before Buying

This week I've been taking a closer look at amplifiers - why you might want one, what difference they can make on the air, and whether valve or solid-state is the better fit for your station.

In our latest video, I talk through my own experience of running power, how it helped me in pile-ups, and why it's not always just about a bigger signal report - sometimes it's about making your audio cleaner, stronger and easier to copy.

I've also included some of my top amplifier picks below, including a couple of second-hand listings that could save you some money if you're looking to add a bit more punch to your station without buying brand new.

Have a watch of the video, take a look at the options below, and as always, give us a call or pop into the store if you'd like any advice on what would work best for your setup.

[Watch the video here](#)

73

David Millward

MOTPT

Purchasing Manager

[click for link](#)

MAKING THE NEWS



Return of the radio hams

25 JUN 2026 • BY JESSE WOODSHARE:

Waipā Ham Radio enthusiast Don Short is hoping to bring the younger generation up to frequency on an important part of Civil Defence and communications across the world.

<https://www.cambridgenews.nz/2026/06/return-of-the-radio-hams/>

Some great promotion of amateur radio in the Cambridge News



Supporting Heart Kids



Childhood-onset heart disease (CoHD) is the term used to describe the range of heart conditions that impact people from birth or develop during childhood.

Some heart conditions are present from birth and are known as congenital heart disease. Others develop later in childhood and are known as acquired heart disease, often following illness or infection.

For The Ham Shacks 1st Anniversary we made a donation to support Heart Kids



Men's Coffee Group

We recognize that male mental health is a critical issue in New Zealand. Our monthly Men's Coffee Group provides a safe, judgment-free space where men can share their challenges, support each other, and build genuine connections. Combined with adventure activities, we're creating a community where men can talk openly about what matters.

Because real conversations save lives. If you or someone you know is struggling, please reach out.

During 2019 I started writing a book on how to make friends as an adult, and the research was shocking.

Most men give up their friends when they get married as the friend circle tends to be created by the wife, school moms, sports days, etc. and the stats show that 60% of men only have one friend and that is their partner/wife. Men in general have nobody to talk to.

"The world is suffering from an epidemic of loneliness," Murthy, the former surgeon general wrote recently in Harvard Business Review. "If we cannot rebuild strong, authentic social connections, we will continue to splinter apart — in the workplace and in society."

It is reported that forty percent of adults feel lonely (and many more may simply be too proud to admit they're suffering), Murthy reports in a recent Harvard Business Review article. That lack of social connection isn't just a personal sadness; it's a raging health crisis. In fact, science shows that loneliness can take as many years off your life as smoking 15 cigarettes a day.

Radio, like Facebook gives the illusion of having friends, but in reality we all need someone to talk to and discuss life and life's issues. Everybody has a story and in public we only see the mask that they want us to see. When men go quiet things go wrong.

I started a coffee group in Rangiora at the end of last year, where we meet every Thursday evening from 7.30pm to 9.30pm and discuss everything from aliens, farming, fishing, 4x4's, paranormal, religion, hunting, earthquakes and everything in-between.

We are all just normal people with busy lives who escape the reality of life once a week.

You pay for your coffee and the conversation is free.

Coffee Culture
Rangiora
Thursdays
7.30pm to 9.30pm

The group is small so it's easy to fit in.

Greg
ZL1GUD



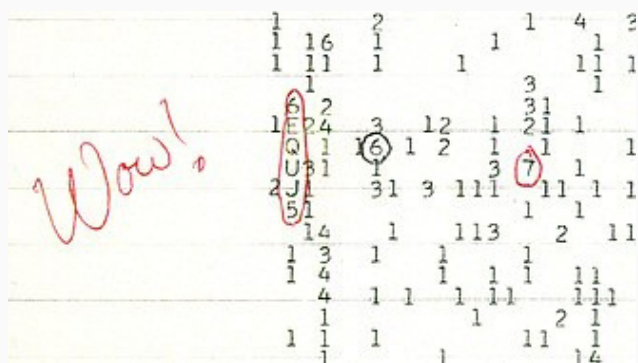


REGULAR COLUMN The Shortwave Listener

Not truly SWL but interesting all the same! Editor

The Wow Signal

The Wow! signal was a strong narrowband radio signal detected on August 15, 1977, by Ohio State University's Big Ear radio telescope, lasting for 72 seconds and believed to originate from the direction of the constellation Sagittarius. Despite extensive follow-up searches, the signal has never recurred, leaving its origin a mystery, with some speculating it could be from extraterrestrial intelligence.



Astronomer Jerry R. Ehman discovered the anomaly a few days later while reviewing the recorded data. On the computer printout, he circled the reading of the signal's intensity, "6EQUJ5", and wrote the comment "Wow!" beside it, leading to the event's widely used name.

The entire signal sequence lasted for the full 72-second window during which Big Ear was able to observe it. Despite numerous follow-up searches and hypotheses (including brief consideration of reflections from space debris, interstellar scintillation, and comet hydrogen clouds), the signal has never recurred, and no explanation, terrestrial or otherwise, has been confirmed. While some researchers have suggested it could represent an extraterrestrial transmission, its single occurrence and lack of replication limit the strength of this interpretation. The Wow! signal has inspired targeted searches, scientific discussion about rare astrophysical phenomena, and references in popular culture.

The signal intensity was measured as signal-to-noise ratio, with the noise (or baseline) averaged over the previous few minutes. The signal was sampled for 10 seconds and then processed by the computer, which took 2 seconds. The result for each frequency channel was printed as a single alphanumeric character, representing the 10-second average intensity minus the baseline, expressed as a dimensionless multiple of the signal's standard deviation.

In this particular intensity scale, a space character denotes an intensity between 0 and 1, that is, between baseline and one standard deviation above it. The numbers 1 to 9 denoted the correspondingly numbered intensities (from 1 to 9); intensities of 10 and above were indicated by a letter: "A" corresponded to intensities between 10 and 11, "B" to 11 to 12, and so on. The Wow! signal's highest measured value was "U" (an intensity between 30 and 31), which is thirty standard deviations above background noise.

Frequency

Ehman in 1998 gave a value of 1420.4556 ± 0.005 MHz. This is $(50 \pm 5$ kHz) above the hydrogen line value (with no red- or blue-shift) of 1420.4058 MHz. If due to blue-shift, it would correspond to the source moving about 10 km/s (6.2 mi/s) towards Earth.

60 metres

The quiet achiever of HF

Propagation · New allocations · Emergency comms · Digital modes

5351.5 – 5366.5 kHz

60 Metres — July Update

Propagation for July

July sits deep in the Southern Hemisphere winter, which is actually the best season for 60m. Long winter nights mean the D-layer absorption that limits daytime performance on this band clears earlier in the evening and returns later in the morning, giving a wide overnight window for both regional NVIS contacts and longer trans-Tasman and Pacific paths.

With Solar Cycle 25 now well past its October 2024 peak and flux levels easing, 60m is one of the bands that actually benefits from the declining cycle — lower solar activity means less daytime D-layer absorption overall, so don't be surprised if you find the band usable for regional contacts earlier in the afternoon than you're used to.

What to expect this month

- Evenings and overnight — best window for ZL–VK contacts and Pacific DX
- Early morning grey-line — worth checking for longer-distance openings before sunrise
- Daytime — useful for closer NVIS-style regional nets, especially with winter's reduced absorption.

BAND REPORT — JULY 2026

10 metres

28.000 – 29.700 MHz · The Magic Band

SFI: ~125–140

Sporadic-E peak

Solar Cycle 25

10 Metres — July 2026 Band Report

There's a persistent myth worth busting straight away: when 10m goes quiet in the middle of the year, plenty of operators assume the solar cycle must be collapsing. In reality, there's a wide perception that when the band goes quiet and worldwide DX dries up in June or July, the solar cycle must be diving — but it's actually just the natural seasonal shift in atmospheric chemistry and radio wave propagation at work, as the F2 layer thins out over summer. Solar Cycle 25 itself is still performing well above expectations for where it sits post-peak.

Solar flux still well above the F2 threshold

SFI 120 is the practical threshold for 10m F2 openings, with foF2 needing to reach roughly 7–9 MHz at mid-latitudes during daytime to support a typical 3,000 km single-hop path. The current declining phase of Solar Cycle 25 still supports excellent 10m F2 propagation into 2026 and 2027, with SFI values substantially above that threshold for most of the year — so don't write the band off for worldwide DX just because it's mid-year.

But summer brings a different kind of opening

As the F2 layer thins through summer, the band brings its own unique character with the prevalence of Sporadic E propagation — intense, highly localised clouds of ionisation in the lower E layer that provide incredibly strong short-skip contacts, typically ranging from a few hundred to a couple of thousand miles. 10m particularly benefits from Es during multi-hop propagation, where two E-layer clouds chain together — a 10m Es opening can reach over 4,000 miles, and June–July is the peak season for this, with cross-country and even transatlantic potential if conditions align.

Watch for geomagnetic disturbances

High geomagnetic activity degrades 10m F2 propagation significantly — at Kp 5 or higher, transpolar and high-latitude paths through northern Europe and Scandinavia degrade noticeably, and at Kp 7+, even mid-latitude F2 paths can fail completely. The flip side: Sporadic-E can actually become more active during the recovery phase of a geomagnetic storm, so experienced operators sometimes find unexpected Es openings right when F2 has gone quiet.

How to tell what you're hearing

If you're working contacts at distances inconsistent with F2 geometry — say 800–1,500 miles — Es is almost certainly involved rather than F2. Use a real-time SFI tracker alongside PSKReporter or DX Maps to confirm which mode is in play before you log it.

Bottom line for July: check 10m daily regardless of how quiet it sounds on first listen — daytime F2 DX is still realistically on the table at current flux levels, and Sporadic-E will deliver loud, unpredictable short-skip surprises all month, often with zero warning. Keep the band monitored even when you're focused elsewhere.

73 de The Ham Shack



MORSE CODE - STORIES

"Caryn will be back next month, so this is my contribution. Editor

Bees can "read" Morse-like signals

Researchers at Queen Mary University of London discovered that bumblebees can learn to recognise and respond to different durations of visual cues, similar to the dot and dash of Morse code, choosing the correct flashing light even when its spatial location changed. A genuinely fascinating insight into insect cognition that nobody expected to involve Morse code.

Cells communicate in Morse-like rhythms

Researchers at AMOLF found that cells under stress send a protein called DAF-16 into the nucleus in distinct rhythms — starvation produces a regular oscillating pattern while salt stress produces more random pulses — and the rhythm itself appears to encode information, much like people use Morse code as a communication tool.

Daily news in Morse code, still running

There's an ongoing podcast called News Headlines in Morse Code, broadcasting current headlines at both 10 and 20 words per minute — a genuinely popular tool among CW operators for keeping their head-copy skills sharp with fresh content every day.

"Is CW still relevant in 2026?"

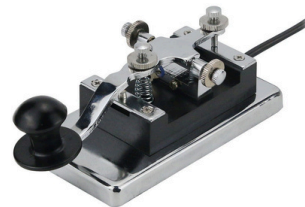
At Orlando Hamcation, members of the Long Island CW Club were interviewed specifically on the current state of CW and whether Morse code remains relevant in 2026 — worth a watch if you want the community's own perspective, especially given the Long Island CW Club's strong presence at recent Hamventions too.

Pop culture cameo

Even soap operas are getting in on it — a storyline on General Hospital had a former Navy SEAL character blinking out what appeared to be an SOS pattern while trapped and unable to speak, sparking fan theories online.



VS



Straight Key or Paddle? Choosing Your Morse Code Weapon of Choice

Every CW operator eventually faces this question: straight key or paddle?

The straight key is the original — a simple up-and-down lever where the operator manually times every dit, dah, and space. A straight key will typically get you to around 15 words per minute of solid, even keying before things start to feel rushed, and most operators can't send good code much faster than 20-25 wpm with one. It demands real skill, and many operators love the personal "fist" it produces — but the up-and-down motion can cause repetitive strain problems, historically nicknamed "glass arm."

The paddle, by contrast, connects to an electronic keyer that generates perfectly timed dits and dahs at the press of a lever. Operating a paddle is far less stressful on the arm and wrist since you simply rest your hand and move your fingers, rather than pumping a lever. Dual-lever ("iambic") paddles let you squeeze both contacts together to send alternating dit-dah sequences automatically — 11% fewer strokes than a single-lever paddle for the same message.

The verdict? Most experienced operators suggest beginners start with a straight key to build genuine timing skill, then graduate to a paddle once higher speeds and longer sessions are the goal.



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I have just taken my PMR171 on a trip to Australia (NSW & 5 days in the Outback), the radio worked perfectly and using 20 watts I had a lot of QSO's back to NZ and of course a lot of local contacts. I have a few HF radios and this was the first time I did not take a 100 watt radio. I was a bit concerned but the 20 watts was perfect.

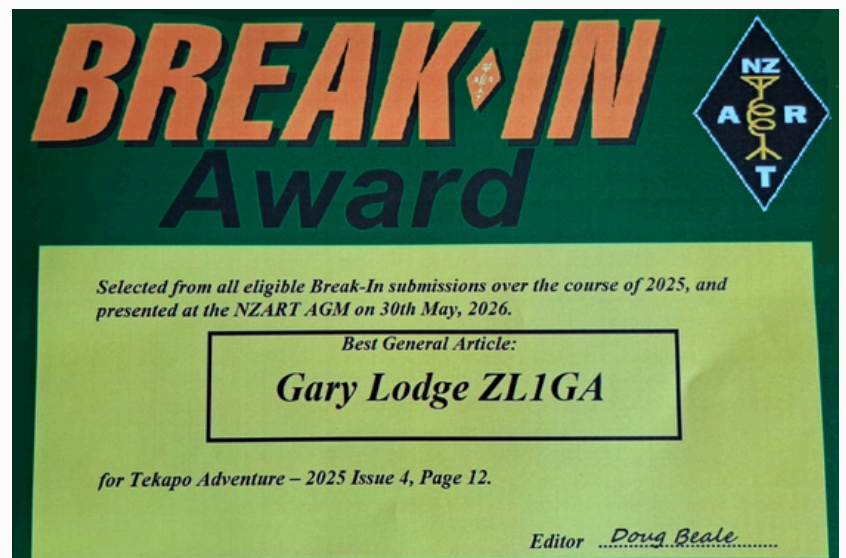
I used the Spiderbeam 404 antenna on a 6m SOTABEAMS Tactical mast, a great combination.

Also, the battery back falls within the Air NZ & Qantas battery allowances so no issues flying with it.

Greg ZL1GUD

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AWARDS





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Australian Ladies Amateur Radio Association (ALARA) was formed in 1975



The membership has now grown to over 200, with many Australian members sponsoring overseas YLs into ALARA. The term "YL" stands for "young lady" – regardless of age.

The Associations mission is to encourage women's interest and active participation in amateur radio.



In July we celebrated 50 years of ALARA - it was a fantastic weekend with members travelling from far and wide to gather in Melbourne for this Big Birthday



EUROPE'S LARGEST AMATEUR RADIO EXHIBITION

Friedrichshafen – Amateur radio, astronomy, and spaceflight all under one roof: From June 26 to 28, 2026, radio enthusiasts from around the world will once again be gathering in Friedrichshafen for Ham Radio. For the first time, Ham Radio will be complemented by Astro on Saturday, June 27, 2026. This new event will expand Europe's largest amateur radio exhibition to include a dedicated supporting program focused on astronomy, astrophotography, and modern astronomical observation technology. "Whether long-standing radio amateurs, astronomy enthusiasts, or families on a journey of discovery, we want to inspire people to engage with technical topics and connect with one another," says Project Manager Petra Rathgeber. In total, more than 400 exhibitors will be represented at the exhibition grounds, including 195 commercial exhibitors from Ham Radio and Astro, and around 230 participants in the radio and day flea market.

As an institutional partner, the German Amateur Radio Club (DARC) is deliberately placing this year's theme at the heart of its supporting program. "Ham Radio is our association's annual showcase, reflecting an organizational image that is dynamic, forward-looking, and technologically pioneering. This is particularly evident in this year's theme: 'Discover the Sky – Amateur Radio Meets Astronomy,'" says Christian Entsfellner, Chairman of DARC.

In 2026, the connection between amateur radio and astronomy will, for the first time, take physical form: Astro, a new platform for astronomy enthusiasts in southern Germany, will be launched alongside Ham Radio. In Hall B1, 35 exhibitors will present telescopes, cameras, instruments, and accessories. Specialist lectures, workshops, and live observations of the Sun will round out the program. "One major commonality is our enthusiasm for technology," says Berthold Wassmuth, Chairman of the Astronomical Association of Lake Constance (Astronomische Vereinigung Bodensee). "There is also radio astronomy, which forms an exciting bridge between astronomy and amateur radio."

About Ham Radio

Europe's largest amateur radio exhibition offers a comprehensive range of products and educational opportunities related to radio technology, providing a platform for radio enthusiasts worldwide to connect and share ideas. What sets Ham Radio apart is its unique mix of commercial exhibitors, globally networked associations, and Europe's largest radio flea market. Expert talks, a diverse supporting program organized by the event's non-commercial partner, the German Amateur Radio Club (DARC), activities for children and young people, live radio contacts, various license exams, career days, and teacher training sessions round out the extensive range of offerings.



OPERATORS





YLS AT ALARA 50TH ANNIVERSARY

To the Editor

I write to you in answer to "Where are the VK YLs?" in the recent edition of the New Zealand & Australian Amateur Radio magazine. They are everywhere spread throughout the vast country of Australia.

Last year the Australian Ladies Amateur Radio Association (ALARA) celebrated their 50th anniversary in Melbourne, the place where the group began back in 1975. (see attached group photo).

ALARA runs regular nets on 3.635 MHz on the 2nd, 4th and 5th (if there is one) Monday nights at 1030 UTC in winter and 1000 UTC in summer as well as on Echolink (ALARA conference station) at the same times on the 1st and 3rd Mondays. In addition, there is a 40m YL net on 7.133 MHz on Wednesdays at 0700 UTC.

However, VK YLs can be found on many other frequencies. Shirley, VK5YL runs the ANZA net on Thursdays, Catherine VK7GH is an avid contester and I am a regular ragchewer and parks activator on 40m.

Keep an ear out for the annual ALARA contest on the last weekend in August and save the date for the next ALARAmeeet on 6th -7th November 2027 in Bathurst NSW.

For more details about ALARA, look up the website at alara.org.au. We are an active group of ladies on the air.

From Norma VK2YL
ALARA Publicity Officer
publicity@alara.org.au



NORMA VK2YL ACTIVATING SCHEYVILLE NATIONAL PARK



NORMA VK2YL ACTIVATING BENTS BASIN STATE CONSERVATION AREA



QTC Magazine

The Radio Amateur Society of Australia

June 2026

New RASA Project - Call for Team Members
SVXLink. Echolink and more for Linux
ACMA Clarifies the new RRL
Taking the Hobby Public
VJ2LH Expedition to Lord Howe Island on now
Dits n Dahs, DX Happenings
ZL News - Outdoor Activities, Mentoring
Contesting, Club Support
Free resources from RASA

QTC June 2026

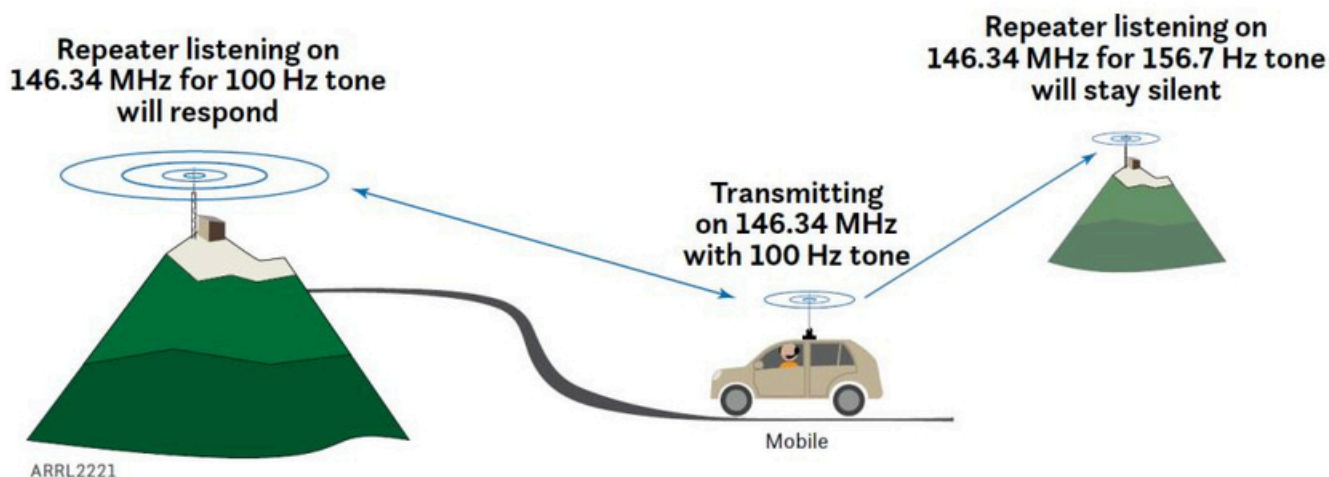
It's free for everyone to read...

<https://vkradioamateurs.org/qtc-magazine/#qtc-june-2026/1>

Repeater Tones and How to Use Them

Scott Freeberg, WA9WFA

First published in On the Air, March/April 2026



Though this mobile amateur is in a location where he could reach both repeaters that are listening on 146,340 MHz, he has programmed his radio to reach the repeater listening for a 100 Hz tone. (Now before you get your coxina knot, amateurs in IARU Region 2 (the Americas) have access to 144 to 148 MHz, whereas we in IARU Region 1 have 144 to 146 MHz. Ed.)

M Frustration of hearing a repeater repeater frequencies are coordinated so that any of us have experienced the operating on the same frequency. Normally

but being unable to access it. The repeaters using the same frequency are located far

hear you at all. Most likely, your signal is missing a special tone the repeater needs to hear before responding to your transmission — without the tone, you simply cannot get into the repeater.

Repeaters like this are utilising an interference reduction feature called Continuous Tone Controlled Squelch System, or CTCSS for short and while the feature name and abbreviation sound complicated, it is very easy to understand and implement.

About the Tones

The mysterious CTCSS tone is simply a low-frequency (67 Hz to 254,1 Hz) audio tone that is sent out with your transmission every time you press your radio's push-to-talk button. You may not hear it, these tones are very low in audio frequency and amplitude, but can be perceptible to the human ear. Thankfully, most repeaters filter out the tone from the voice audio. Otherwise, you might hear an annoying hum in the background when people are talking.

The tone's primary goal is to prevent stations from simultaneously activating (*keying up*, in amateur slang) multiple repeaters that are

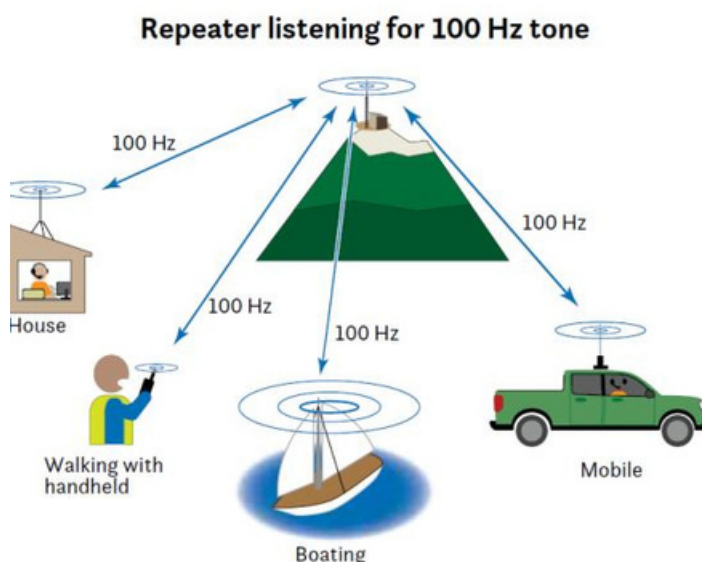
may be able to hear each other and there may be a risk of more than one repeater being keyed up by the users, resulting in confusion. But if CTCSS tones are required to access those repeaters — perhaps one uses a tone of 100 Hz, another uses 151,4 Hz and another uses 171,3 Hz — only the desired repeater will be keyed up.

How Tones Work

Repeaters have squelch circuits that keep your radio's speaker quiet when the repeater does not hear any signals. When an amateur transmits on the repeater input frequency with the correct tone, the repeater's receiver detects that signal and opens the squelch, signalling the repeater to start transmitting the signal it has heard - repeating it, as repeaters are meant to do. When that amateur stops transmitting, the squelch closes and the repeater transmitter turns off.

There are two types of repeater squelches — carrier-operated relay (COR) and CTCSS tone. When a repeater uses carrier-operated squelch, any FM signal the repeater "hears" on its input frequency will cause the squelch to open and the

Used with permission of Radio ZS



Various repeater users, accessing a repeater that uses a 100 Hz tone

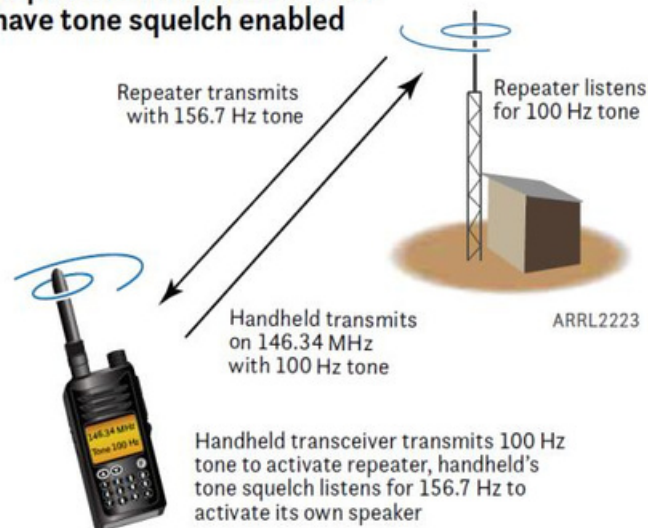
(SARL Awards and Trophies from page 9)

transmitter to turn on. COR squelch allows any signal heard on the repeater's input frequency to be retransmitted. When CTCSS tone squelch is used, signals need to have the proper tone riding on the carrier for the repeater to respond. If there is no tone heard, the repeater will remain silent.

Many repeaters also transmit a tone on the same or a different frequency than your radio's tone squelch will use to turn on your radio's speaker only when the correct tone is heard. This feature comes in handy if you are hearing a distant repeater operating on the same frequency as your intended repeater during a propagation opening. Rather than have to listen to the other repeater, you can enable the receive tone squelch in your radio and only hear the repeater you want to listen for.

While a tone squelch prevents unintended repeater activation or key-up, it does not prevent interference when multiple signals are heard on the receiver input and one is transmitting the correct tone. The tone will hold the repeater open, so the receiver hears everything that is on the input. Once the signal with the proper tone stops transmitting, the repeater will shut off, regardless of other signals coming into the repeater.

Repeater and handheld both have tone squelch enabled



A handheld transceiver and a repeater, both using CTCSS tone squelch to reduce interference

Help with Programming Tones

There are 50 CTCSS tones for a repeater to choose from. Each radio manufacturer has its own specific memory channel programming technique and no two are alike. Consult your radio's user manual for the programming procedure and check

YouTube for a "how-to" video on programming

tones into your particular radio.

Basically, your radio will have you select an empty memory channel, then programme in the repeater's specific information, including repeater output frequency, the +/- transmit offset and the tone squelch frequency. If you are still unable to access the repeater after programming your radio with that information, consult your radio's manual to find out if the CTCSS tone generator needs to be enabled for that repeater memory channel.

Despite the scary name and abbreviation, repeater CTCSS is easy to implement, especially now that you have some background on what it is and how it works. Most modern transceivers and handhelds already have the tone generator built in, so you just have to find out which tone your repeater is using, program it into your radio's memory, enable the tone feature and then start using that repeater.

67,0	69,3	71,9	74,4	77,0	79,4	82,5	85,4	88,5	91,5
94,8	97,4	100,0	103,5	107,2	110,9	114,8	118,8	123,0	127,3
131,8	136,5	141,3	146,2	151,4	156,7	159,8	162,2	165,5	167,9
171,3	173,8	177,3	179,9	183,5	186,2	189,9	192,8	196,6	199,5
203,5	206,5	210,7	218,1	225,7	229,1	233,6	241,8	250,3	254,1



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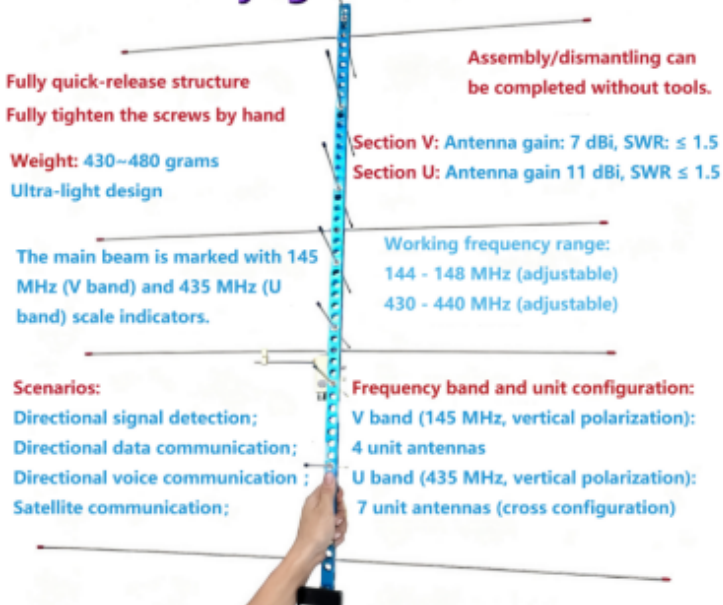
"How much power do I need to reach the ISS?"

Our friends at AMSAT recommend about 5 watts and a directional antenna (like a Yagi-Uda) for most satellite activities.

In other words, a **typical handheld radio**, paired with a good antenna, has enough power to work the ISS voice and packet repeaters.

For more tips, check out the AMSAT-NA or AMSAT-UK websites.

yagi antenna



During an ARISS teachers session, educators used directional antennas to try and listen to the ISS. 2023 ARISS / Diana Schuler Photo.



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WSPR from a ZL Perspective — Don Short, ZL1DRS

Exploring WSPR from a ZL Perspective: Global Signals on Milliwatts

A practical look at WSPR, low-power propagation, filtering, and why a simple station can teach a great deal about HF.

Introduction

Getting back into amateur radio after a period away often feels like rediscovering the hobby entirely. Equipment evolves, operating styles shift, and new technologies emerge that open up completely different ways of interacting with the RF spectrum.

For me, that rediscovery began with a Raspberry Pi sitting unused in a drawer. That small starting point led into WSPR — Weak Signal Propagation Reporter — a mode that fundamentally changed how I think about radio.

Operating as ZL1DRS from the Waikato, with a simple backyard antenna, I began experimenting with very low power and quickly realised that many assumptions about what is required to achieve global propagation are worth revisiting.

WSPR is not about making contacts in the traditional sense. There is no conversation, no exchange of names or signal reports, and no pile-up to work through. Instead, WSPR quietly transmits a tiny amount of information and allows a worldwide network of receivers to report where the signal was heard.

That simplicity is part of its appeal. It allows amateurs to explore propagation, antenna performance, band behaviour, and station efficiency in a way that is immediate, visual, and surprisingly addictive.

Understanding WSPR

WSPR is a digital mode designed specifically for probing propagation under extremely low-power conditions.

Each transmission carries only a small amount of information:

- Callsign
- Maidenhead grid locator
- Transmit power level

The transmission is highly structured. WSPR uses synchronised two-minute transmission windows, with each transmission lasting approximately 110 seconds. WSPR-zero describes WSPR as a low-power shortwave protocol intended to test propagation by observing how signals travel via the ionosphere.

The signal bandwidth is extremely narrow — around 6 Hz — which is one of the reasons WSPR is so effective. Compared with a typical SSB signal occupying several kilohertz, a WSPR signal is concentrated into a very small slice of spectrum.

This allows WSPR signals to be decoded well below the noise floor — often at levels that would be completely inaudible by ear. In practical terms, this means a signal that cannot be heard can still be detected, decoded, logged, and mapped.

Why WSPR Is So Effective

At first glance, it seems unlikely that a signal measured in milliwatts could be received on the other side of the world. However, WSPR is successful because several clever design choices work together.

The first is ultra-narrow bandwidth. By placing the signal energy into such a narrow bandwidth, WSPR greatly improves the chance of detection.

The second is long transmission duration. Each transmission lasts long enough for the receiving software to integrate the signal over time, effectively pulling it out of the noise.

The third is forward error correction, which allows the original message to be reconstructed even when parts of the received signal are degraded.

The fourth is precise timing. WSPR depends on stations being synchronised to UTC so that receivers know exactly when to listen and decode.

Finally, WSPR benefits from a worldwide network of receiving stations. A transmitted signal does not need to be strong everywhere — it only needs to be decoded by one or more receivers somewhere on the planet.

Together, these factors create a remarkably sensitive system capable of producing global results from very modest power.

A Minimalist Station

The initial station setup was deliberately simple:

Raspberry Pi

WSPR software

G5RV antenna

Operation mainly on 20 m and 40 m

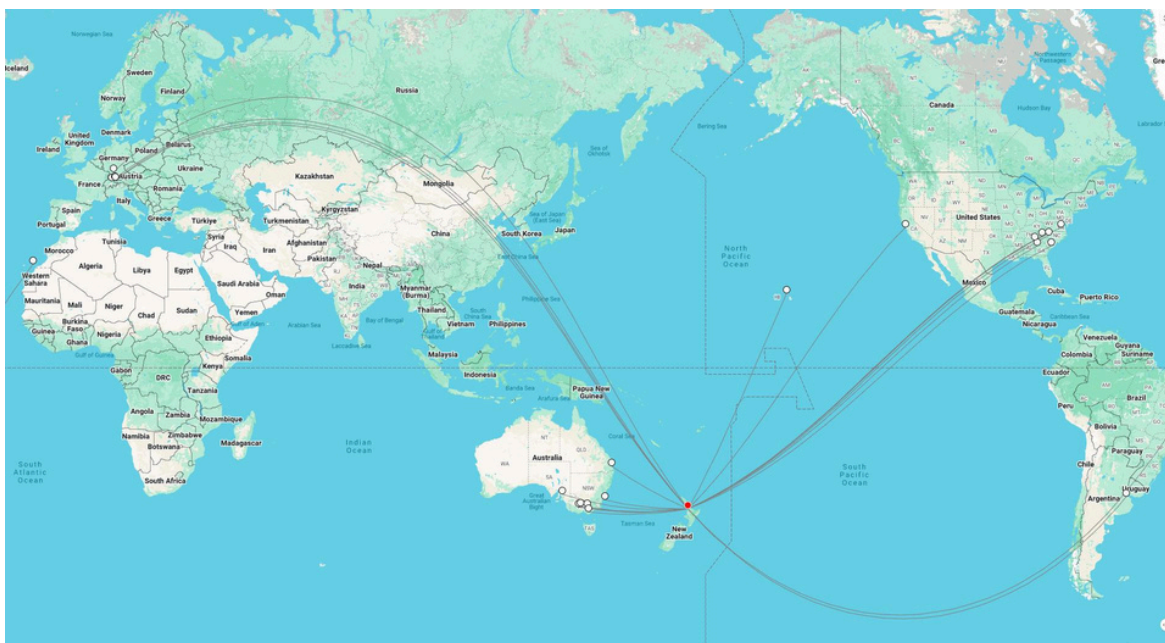
Output power around 20 milliwatts

To put that into perspective, 20 mW is approximately 1/5000th of a typical 100 W HF station.

Despite this very modest power level, reception reports began appearing from across the world. What started as curiosity quickly became repeatable evidence that propagation, not power, was doing much of the work.

This was the moment WSPR became genuinely compelling. Seeing a signal from a simple ZL backyard station appear on maps thousands of kilometres away changes the way you think about radio.

Figure 1 – Global WSPR Reception from ZL



Global reception reports demonstrating long-distance propagation from New Zealand at milliwatt power levels.

Propagation from ZL

From a New Zealand location, almost every successful long-distance WSPR decode is interesting. Signals leaving ZL are immediately travelling across ocean paths and often across multiple propagation regions.

In my own testing, reception paths regularly extended across:

Australia and the Pacific

North America

Europe

Asia

South America

Distances of 15,000 km or more were regularly observed. The most striking part was not just that these paths occurred, but that they were repeatable. Over time, WSPR showed patterns in propagation that would otherwise have been much harder to observe.

Greyline periods were particularly interesting. Around local sunrise and sunset, reception paths often changed noticeably, with openings appearing and fading in a way that was clearly visible on the WSPR maps.

Band Behaviour: 20 m and 40 m

20 metres

On 20 m, WSPR showed strong long-distance DX performance. This band was particularly good for paths into North America and Europe when conditions were favourable.

The band could be dynamic, with openings appearing quickly and fading just as quickly. This made 20 m particularly interesting to watch over the course of a day.

40 metres

On 40 m, the behaviour was different. The band tended to be more stable and predictable, especially in the evening and overnight.

40 m produced useful regional coverage across ZL, VK, and the Pacific, while still occasionally showing longer-distance paths under the right conditions.

For anyone interested in comparing antennas, testing station performance, or learning how propagation changes throughout the day, WSPR provides an excellent real-world tool.

Refining the Station

As the experiment progressed, attention turned to improving signal quality and stability.

The station was refined using a dedicated WSPR transmitter board and appropriate filtering. This improved:

- Frequency stability
- Signal cleanliness
- Harmonic suppression
- Confidence in compliance

Interestingly, the improved hardware did not dramatically increase the distance achieved. The earlier simple setup had already demonstrated global reach. What improved was the quality and reliability of the transmitted signal.

That is an important lesson. With WSPR, the goal is not simply “more power”. A clean, stable, well-filtered signal is far more important.

FIGURE 2 – COMPACT WSPR TRANSMITTER



Compact Raspberry Pi-based WSPR transmitter with improved filtering and stability.

Signal Purity and Filtering

One technical area worth emphasising is filtering.

Many simple WSPR transmitters, especially those based on Raspberry Pi GPIO output or direct digital generation, can produce harmonics if used without filtering. Even though the wanted signal may only be a few milliwatts, unwanted harmonics can still be radiated if connected directly to an antenna.

For example, a 20 m WSPR transmission around 14 MHz can produce harmonics around:

- 28 MHz
- 42 MHz
- 56 MHz

The exact levels depend on the hardware and output method, but the principle is simple: a low-power signal still needs to be a clean signal.

A suitable low-pass filter should be used between the transmitter and antenna. For a simple single-band setup, a band-specific low-pass filter is usually sufficient. For multi-band operation, a switched filter bank is a better solution.

A good practical target is:

- 50-ohm input and output impedance
- Low insertion loss on the wanted band
- Strong attenuation of harmonics
- Physically robust construction
- Suitable power rating, even if only low power is being used

Filtering is not just about meeting licence requirements. It is also good engineering practice and part of being a responsible amateur operator.

Common WSPR Transmitter Approaches

1. Raspberry Pi GPIO Output

This is one of the simplest methods. Software can generate RF directly from the Raspberry Pi GPIO output.

The advantages are:

- Very low cost
- Minimal hardware
- Good for experimentation
- Easy to automate

The disadvantage is that filtering is absolutely essential. A Raspberry Pi output should not be connected directly to an antenna without an appropriate low-pass filter.

2. Dedicated WSPR Boards

Boards such as WSPR-Zero are designed to make Raspberry Pi-based WSPR operation more accessible. WSPR-zero is described as an open-source hardware and software project that turns a Raspberry Pi Zero into a WSPR transmitter and receiver system.

The advantages are:

- Tidier hardware
- Easier setup
- Better integration
- Suitable for portable or travel use

WSPR-zero's project material also notes a focus on low cost and easy setup, making it suitable for beginners and portable operation.

3. Audio from a Computer into an HF Transceiver

Another approach is to use software such as WSJT-X with a conventional HF transceiver.

The advantages are:

- Very clean signal
- Easy band changes
- Existing station equipment can be used
- Power can be accurately controlled

This approach may be less compact than a Raspberry Pi beacon, but it is an excellent way to try WSPR with equipment already in the shack.

Where to Get Filter Boards

For readers wanting to have a go, filter boards are readily available.

QRP Labs

QRP Labs supplies low-pass filter kits across a wide range of bands, including 40 m, 30 m, and 20 m. Their LPF kits are designed for QRP and WSPR-style projects and use C0G/NP0 RF capacitors.

QRP Labs also notes that its LPF kits are designed to plug into Ultimate-series QRSS/WSPR kits and can handle at least 10 W safely, which is far more than required for milliwatt WSPR use.

Website: qrp-labs.com

Mini-Kits Australia

Mini-Kits in Australia produces RF filter products including HF band-pass, high-pass, low-pass, and crystal filters. This makes them a useful regional supplier for ZL and VK amateurs.

Website: minikits.com.au

Pacific Antenna / QRP Kits

Pacific Antenna offers an "Easy Low Pass Filter" kit designed to reduce harmonics and spurious signals. Their filter kits are available for 80 m, 40 m, 30 m, and 20 m, and are described as beginner-friendly kits.

Website: qrpkits.com

AliExpress / eBay Modules

Low-cost RF low-pass filter modules are also available through general online marketplaces. These can be inexpensive, but quality varies. If using these boards, it is worth checking performance with a spectrum analyser, NanoVNA, or other suitable test equipment if available.

Homebrew Filters

Building a filter is also a very achievable amateur radio project.

A simple 5-pole or 7-pole low-pass filter can be built using:

- Toroids
- Enamelled copper wire
- RF capacitors
- Small PCB or copper-clad board
- BNC or SMA connectors

For many operators, building the filter is a satisfying part of the project. It is also a good way to learn more about impedance, cutoff frequency, harmonic suppression, and RF construction techniques.

Operating Considerations

Successful WSPR operation depends on attention to a few important details.

Accurate Time

WSPR requires accurate timing. If the computer or Raspberry Pi clock is too far out, transmissions may not decode correctly. Internet time synchronisation is usually sufficient for a home station, while GPS timing can be useful for portable or unattended operation.

Frequency Stability

Because WSPR is so narrow, frequency stability matters. Drift can reduce decode success or move the signal outside the expected receive window.

Filtering

Filtering is essential, especially where RF is generated directly by simple digital hardware.

Band Plans

Operators should use recognised WSPR frequencies and comply with licence conditions and local band plans.

Power Reporting

WSPR reports include the transmitted power level, so it is worth being reasonably accurate. This makes the data more useful for others comparing propagation and station performance.

Getting Started with WSPR

One of the most appealing aspects of WSPR is just how accessible it is.

A basic station can be assembled from:

- Raspberry Pi or computer
- WSPR software
- Low-pass filter
- Basic antenna
- Internet time synchronisation
- Amateur licence and callsign

Unlike many parts of amateur radio, WSPR does not require a high-power station, large antenna farm, or expensive equipment. A modest setup can produce interesting results very quickly.

For many operators, the first real hook is seeing a map update with their callsign appearing hundreds, thousands, or even tens of thousands of kilometres away.

That immediate visual feedback makes WSPR particularly useful for:

- Testing antennas
- Comparing bands
- Watching greyline propagation
- Checking station performance
- Learning how HF changes through the day
- Encouraging newcomers into practical experimentation

Why It's Worth Trying

WSPR offers something that many other modes do not: clear, visual evidence of how a station is performing.

- Instead of wondering whether the band is open, you can see it.
- Instead of guessing whether an antenna is working, you can compare reports.
- Instead of needing high power, you can experiment with milliwatts.
-

For operators returning to the hobby, WSPR provides a low-cost and low-pressure way to get active again. For experienced operators, it provides useful data. For newer amateurs, it offers a practical introduction to propagation, digital modes, antennas, and RF cleanliness.

Perhaps most importantly, WSPR encourages curiosity. It invites experimentation. Change the antenna, change the band, alter the time of day, reduce the power, and observe what happens.

That is amateur radio at its best.

Looking Ahead: Pico Balloons

One of the most interesting extensions of WSPR is its use with small high-altitude balloon payloads.

Pico balloons can carry very small, very low-power transmitters around the globe. Because WSPR can be decoded at such weak levels, it is well suited to these applications.

This takes the same basic idea — low power, narrow bandwidth, global receiving network — and applies it to a moving airborne platform.

For me, this feels like a natural next step. If a backyard Raspberry Pi can produce global reports on milliwatts, then a drifting balloon beacon opens another fascinating area of experimentation.

Conclusion

WSPR changes how you think about amateur radio.

It shifts the focus away from power and towards understanding — understanding propagation, efficiency, timing, frequency stability, antennas, filtering, and the behaviour of the ionosphere.

From a ZL perspective, this is especially powerful. Signals leaving New Zealand are immediately starting long journeys, and WSPR allows those journeys to be seen in near real time.

The biggest lesson from my own experiments is simple:

You do not need a high-power station to learn something meaningful about HF.

With a Raspberry Pi, a modest antenna, a suitable filter, and a willingness to experiment, it is possible to see your signal travel across the world.

There is every chance that once you see your first set of global spots appear, you will be hooked.

Practical Links

Resource	Link / Use
WSPR-Zero	https://wspr-zero.com — Raspberry Pi WSPR project
QRP Labs low-pass filter kits	https://qrp-labs.com — QRP/WSPR low-pass filter kits
Mini-Kits Australia	https://www.minikits.com.au — regional ZL/VK RF filter kits
Pacific Antenna / QRP Kits	https://www.qrpkits.com — Easy Low Pass Filter kits

Today, people are not always able to attend amateur radio classes or study groups due to their busy lives or the tyranny of distance.

If we don't provide support and encouragement to potential candidates, amateur radio has the potential to atrophy and disappear.

So, the amateur radio service collectively should be encouraging all potential candidates to explore amateur radio without cost. This is the ethos behind the training material in Jules' Workshop and we will remain fee free and advert free.

Keeping the web site current and pertinent requires constant reviews and updates. The amateur radio licence training material at www.julesworkshop.net was recently updated.

Updates

Each licence exam subject now has a study guide so candidates can plan their study schedule.

All topics or subjects now have associated videos for easier learning.

I hope any candidates find this material useful.

Jules Perrin JP
0457585974
VK3JFP
www.julesworkshop.net

Support our veterans.

FOUNDATION LICENCE THEORY and REGULATIONS

This material is free for your personal use in preparing for the Foundation licence theory exam.

Work through each chapter then undertake the questions for that chapter. Then, compare your answers with the answers offered.

The material provided below does not replace the Foundation Manual but, is designed to complement and provide self testing questions.

Do you find this material helpful? [Let me know!](#)

Supplementary Training Material



Click on the photo to order the manual. (There is a fee for the hard copy manual.)



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BEN ZL4AT

MidWinter30 – Four Parks Planned, Three Parks Activated, One Brilliant Day

The MidWinter30 event had been firmly marked on my calendar for weeks. The plan was ambitious enough: four POTA activations in one day around the Upper Clutha district. As with many amateur radio adventures, however, the plan evolved as the day unfolded.

The alarm went off early and I arrived at my first activation, Glendhu Bay, just before the official 9:00 am start. The thermometer was reading a rather brisk -4°C , but there are certainly worse places to begin a winter's day than on the shores of Lake Wānaka.

My trusty Yaesu FT-891 and 40 metre dipole were quickly deployed, while I remained comfortably ensconced inside the warmth of the car. A hot cup of tea and a bacon-and-egg muffin completed what was proving to be a rather civilised portable operating experience.

With activators across New Zealand all starting together, the bands were alive from the opening whistle. There was a steady stream of callers, plenty of familiar callsigns, and a wonderful atmosphere that reminded me why organised operating events are so enjoyable. It was easily my favourite activation of the day.

After packing up, I had the pleasure of meeting Graeme ZL1BDS, who was visiting from Blenheim. We spent some time chatting and, as amateurs inevitably do, admiring each other's equipment and discussing portable operating. These unexpected conversations are often every bit as enjoyable as the radio itself.

Unfortunately, time was beginning to get away from me. My second planned stop was Dublin Bay, but after arriving and having a wander around, I decided it wasn't quite the inspiring operating location I had imagined. With the schedule already slipping, I made the decision to abandon that activation altogether and head straight for my third planned location at Lake Hāwea.

After a quick scout around, I found a convenient tree about seven metres high that made an ideal support for the 40 metre dipole. For reasons I never completely solved, the antenna presented an SWR of around 2:1, noticeably higher than usual. That, coupled with a bit of an afternoon energy slump, took some of the shine off the moment. Nevertheless, radio has a habit of lifting one's spirits, and before long the contacts were flowing. The activation concluded successfully with 17 contacts, followed by a well-earned lunch.

The final activation was only about six kilometres away at the Hāwea Recreation Reserve, and this proved to be another excellent choice. It's a lovely park with an adjacent racecourse where, rather charmingly, local children were exercising their horses around the track while I operated nearby. This time I stayed in the car and used my trusty 6 metre SOTABEAMS mast, supplied by The Ham Shack, to support the same 40 metre dipole. The FT-891 spent most of the activation running my usual 60 watts, producing another steady run of callers and finishing with 26 contacts.

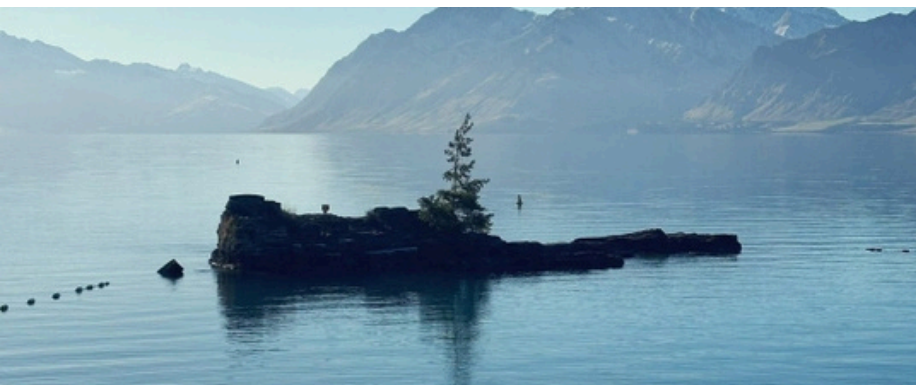
One QSO, however, stood out above all the others.

A station in Serbia was coming in 59. I increased power to around 75 watts, and although he could hear me, my callsign simply refused to stick. I must have repeated ZL4AT twenty times before, finally, it clicked. It was exhausting and I almost gave up, after all I was there primarily for the NZ chasers. However hearing him come back with my correct callsign after all that effort was immensely satisfying.

Looking back over the day, I only managed three of the four planned activations, yet I went home happy.

Good conversations, beautiful winter scenery, and the simple pleasure of spending a day outdoors with a radio made for a thoroughly memorable MidWinter30.

A special thanks to the organisers of this new event, I look forward to doing it all again next year!





GARY LODGE - ANOTHER ADVENTURE

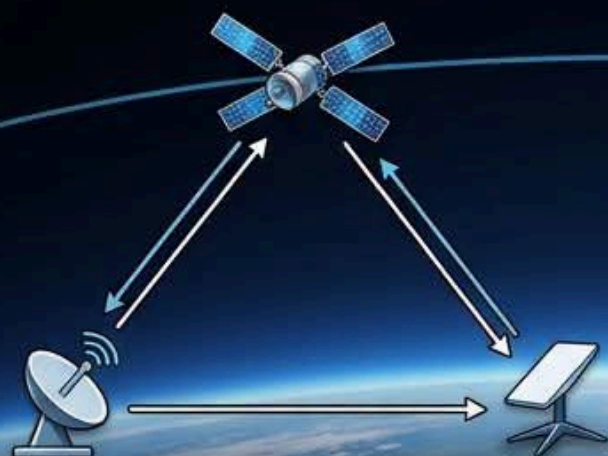
An interesting couple of days. It is amazing the places this POTA activity get you to. Yesterday 's frosty start saw us activate the Staveley Lime Kilns site. If anyone plans to activate this site read our note on ZLonAir re maps and boundaries as the activation site appears to be on private land .Second activation for the day was the Sharplin Falls car park, bit of a dodgy site but it worked.This popular new track to the falls is a really nice walk through beech forest and has been extremely well constructed



BREAKING: FCC GRANTS SPACEX APPROVAL FOR STARLINK-TO-STARLINK COMMS TEST

SPACEX

SpaceX will test direct satellite-to-satellite communication using specific radio frequencies.



CURRENT METHOD



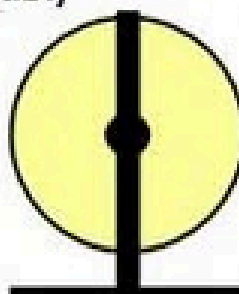
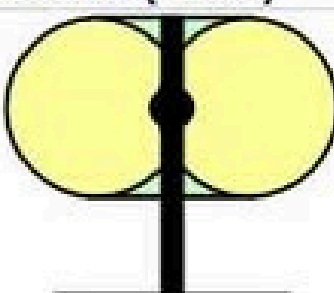
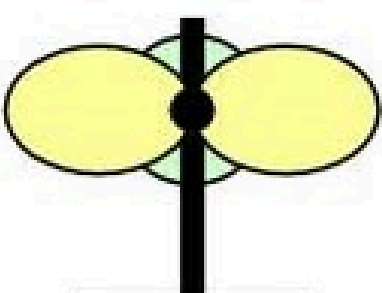
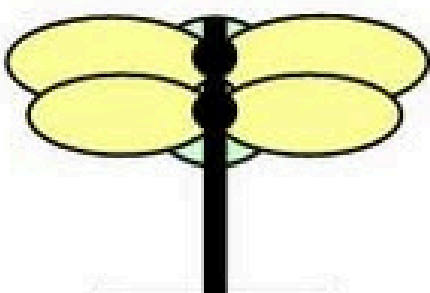
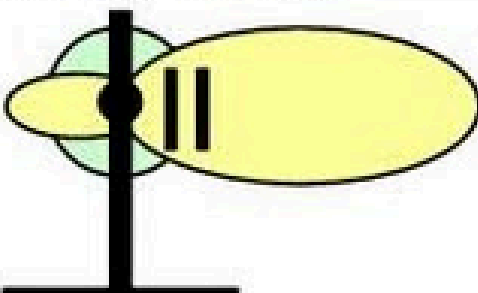
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Global Communications Network**



Antenna Type	Description
Isotropic (0 dBi) 	Theoretical reference Energy is distributed equally in all directions.
Omnidirectional (~2 dBi) 	1/2 Wave Vertical, Dipole, J-Pole .. Energy is concentrated toward the horizon instead of being radiated toward the sky and ground.
Enhanced Omnidirectional (~3–4 dBi) 	5/8 Wave Vertical .. Flatter vertical radiation pattern. More energy is concentrated near the horizon.
High-Gain Omnidirectional (~6–8 dBi) 	Collinear 1/4, 1/2 .. 5/8 .. Multiple radiating elements concentrate energy more strongly in the horizontal plane.
Directional Antenna (~8–12 dBi) 	Yagi, Quad, V-Antenna, Parabolic Energy is focused primarily in one preferred direction.

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Would consider any other vhf ssb rigs, Icom 7000 or 7100 or even yaesu 991a.

Thanks

Bruce Ward

ZL1BW

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