

NEW ZEALAND & AUSTRALIAN AMATEUR RADIO



NEW ZEALAND & AUSTRALIAN AMATEUR RADIO MAGAZINE

Email: ZL1GUD@proton.me

New Zealand & Australian Amateur Radio Magazine is now being sent to every amateur radio club in New Zealand and Australia as well as over 200 subscribers... and it's all for FREE

New Zealand Amateur Radio magazine is free and includes Product News, International Amateur Radio News, DIY projects, Interviews, POTA and SOTA news and DX Expedition 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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Note: Right click on text for link to website.

www.thehamshack.co.nz

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AUSTRALIAN CLUB ORDERS

Place a group/club order over \$1500 and we will pay the Fedex costs to get the goods to Australia.



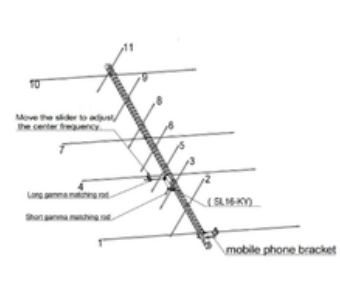
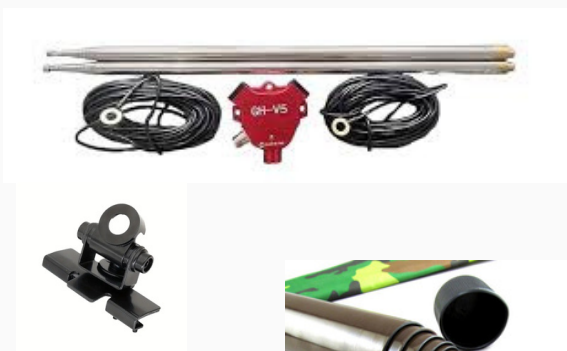
You pay the listed pricing less the 15% NZ GST

Your local tax and clearing costs are for your account.

We check and test every product before it gets packaged!

- Spiderbeam yagi antennas
- Spiderbeam wire antennas
- Spiderbeam 10m and 12m masts
- SOTABEAM Masts 4m, 6m & 7m Tactical
- SOTABEAM 6m Carbon
- Balun/Unun 1:1 4:1 9:1 49:1
- Guohetec PMR171 radios
- SWR meters
- Guohetec Antenna systems
- Antenna building components
- Mast anchors and guy rings
- Winders

and lots more.....



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Official agents for New Zealand & Australia





From the Editor

I guess it is that time again to wish everyone a good new year and great DX.

I spent a few days in Akaroa with my daughter and son-in-law and took along my Spiderbeam 404 antenna to hang from the flag pole on their deck. Conditions weren't brilliant but I still managed some contacts and joined Potaholics Christmas net on 40m.

So what does 2026 hold? I was sent a quote which read "It's not about how many days in your life, but how much life in your days!". I have to admit that since starting the business it has been 18 hours a day 7 days a week. Things are now set up and I want to get back to weekly POTA activations and getting to more remote sites that have not yet been activated. Well that is the plan.

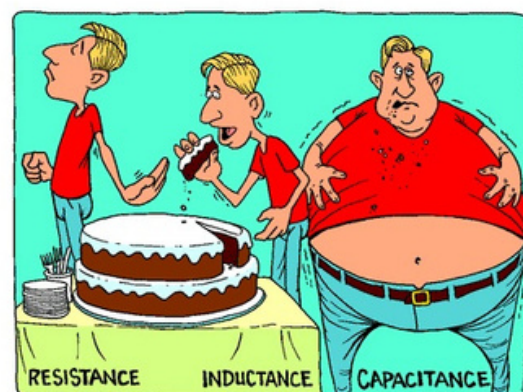
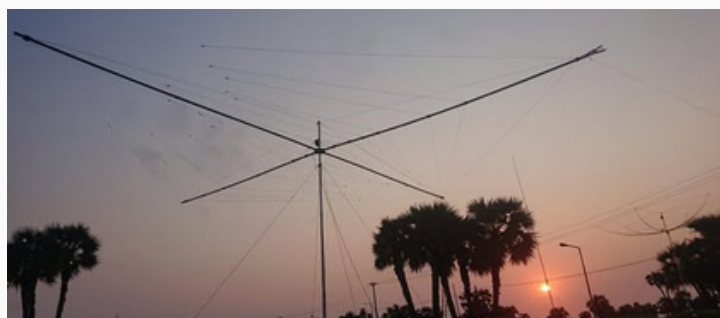
I have a few trips planned to Australia, my home from home, and want to do some activations there.

Gear wise, I would love a FTDX 101MP or D but we will wait and see.

Wishing you all an amazing 2026!

73's

Greg



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Random Wire Antennas

With lengths that are not random.

Wire Lengths that works & those lengths that don't work!

Random wire antennas - where the length is not random

Random wire antenna are easy to make and use and if you choose the correct length it should be able to work all bands.

The trick is to get the length correct and it should not be a half wave on any frequency since a half wave gives u a very high impedance into a 50 ohm transmitter.

Lengths that don't work:

Lengths in meters

Frequency MHz	1/2 Wave	2nd Multiple	3rd Multiple	4th Multiple
1.9	74.98	149.96	224.94	299.92
3.8	37.49	74.98	112.47	149.96
7.2	19.81	39.62	59.44	79.25
10.1	14.02	28.04	42.06	56.08
14.2	10.06	20.12	30.18	40.23
18.1	7.92	15.85	23.77	31.70
21.3	6.71	13.41	20.12	26.82
24.9	5.79	11.58	17.37	23.16
28.5	4.88	9.75	14.63	19.51

Lengths that do work:

8.84	10.82	12.50	17.68	21.64	25.60	32.61	36.27	45.11	61.87	105.77	124.05	128.93
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You will need a 9:1 unun and if the unun allows I use a 2 meter wire as a counterpoise, keeping in mind that the braiding on the coax also acts as a counterpoise and you will need a ferrite choke to keep the RF out of the shack.

I have experimented and find the 21.64m length works well in smallish gardens and the wire can be mounted inconspicuously on the top of a timber fence.

Greg
ZL1GUD

*original article was by ve3ips

Peel Amateur Radio Group

PARGFEST Swap-Meet Saturday 7th February 2026

Mandurah Bowling Club
89 Allnutt Street, Mandurah WA.

Huge
annual raffle
draw!

Barista
Coffee
Hot Food

Doors Open:
0800 – Exhibitors & Sellers
0900 – 1230 Buyers
Entry Fee - \$5.00 per person
See you there amongst the raffles and bargains

PARGFEST
– WA's best!

Lucky Door
Prizes

Please check www.parg.org.au/whatsnew for last-minute updates.

Call-in to VK6ARG in PARG1 – AllStar & 146.850Mhz with 91.5Hz sub-tone

For more information call Peter 0432718026 or email parg.secretary@gmail.com



NZART Centennial Conference 2026

Dear Branch Secretaries,

Could you please send this email around to your club members for their consideration and action. Forums...

What is your club expecting for talks/forums at the 2026 NZART AGM/Conference.

Have you any members who would like to give a presentation and approximately how long would that presentation take... 1 hour slots with the first and last 5 minutes to move in and out of the location. If you have members who are willing... what is their call-sign, name and email contact details, so we can contact them to finalise matters.

ZL100C... this call-sign is special and sought after by hams, worldwide.

If you would like to use this call-sign for a time... please email David Karrasch, zl1dk@nzart.org.nz with the dates, times, bands and modes so he can add your details to the register of operators. David will send you a reply within 24 hours with approvals, depending on other operator's bookings.

You will be required to send David a computer-generated adif file of your log daily, with all contacts so he can add those to QRZ.com. Paper logs are no good... it must be a computer-generated log to add details into QRZ.

Thanks for your consideration.

Regards

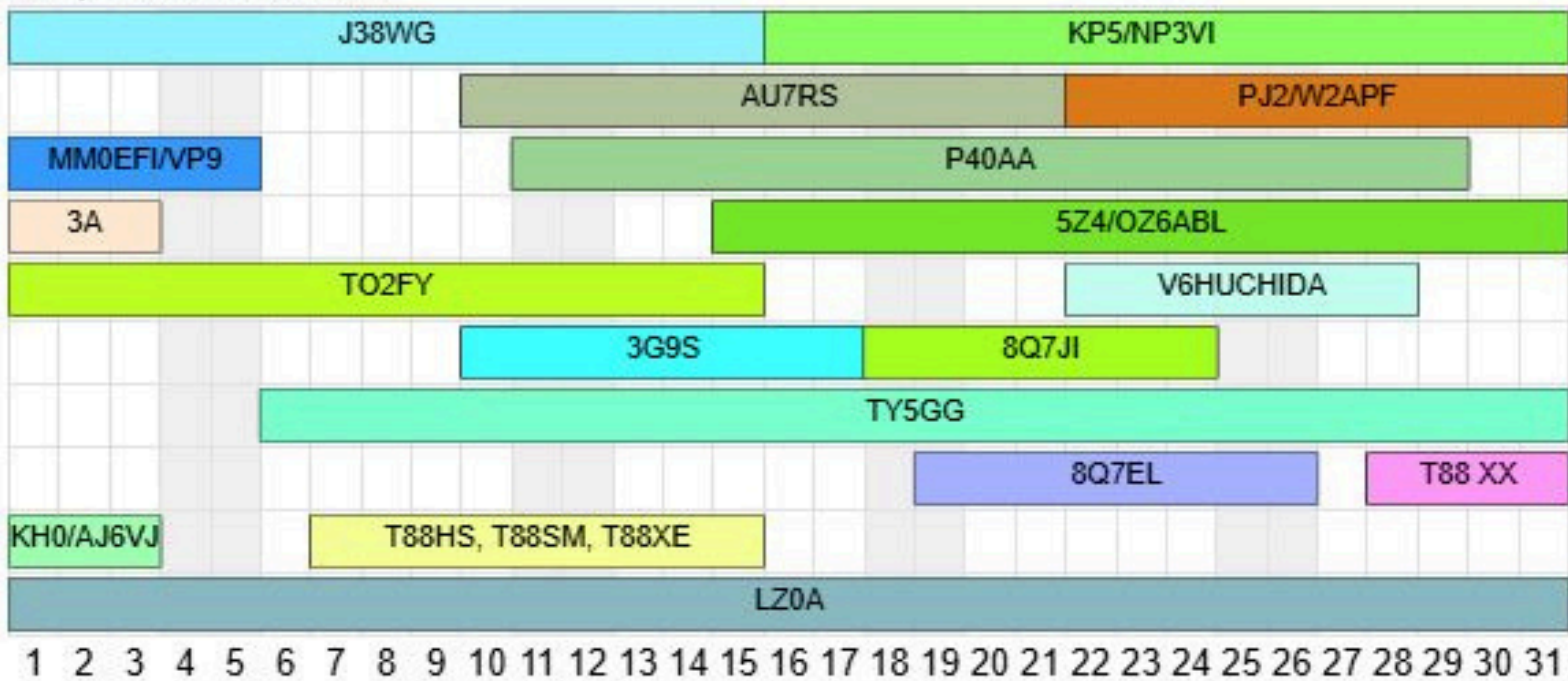
Ian Ashley, ZL1AOX,

2026 Conference Secretary.



DXWORLD.net
FEATURED DXPEDITIONS TIMELINE

Last update: December 26, 2025



Edited by MM0NDX

JANUARY

© IK8LOV Max Laconca



Courtesy of DXworld.net



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DX **WORLD.net**

PJ7AA op. AA9A

ST MAARTEN NA-105

Tom, AA9A will again be active from Sint Maarten as PJ7AA between March 8 to April 4, 2026. QRV on 80-10m; CW, SSB, FT8. Participation in some contests during his stay. All QSOs will be uploaded to LoTW and Club Log. QSL via H/c, LoTW.



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Rob Vile - a Man, a Mic & a Mission

By Rob Vile (ZL2BB and ZL1POTA)

The Gist: My last name might sound like a bad signal report, but I promise: I'm here to clear up the static and maybe activate a park or two.

Let's address the elephant in the shack immediately: My name is Rob Vile.

I know what you're thinking. I sound like a comic book henchman, or perhaps the feeling you get when you accidentally grab the hot end of a soldering iron. When people hear my main call sign, ZL2BB, they expect a grumpy operator who complains about the band conditions and refuses to QSL.

But here is the irony: I am actually quite nice. In fact, my mission in the world of Amateur Radio is to be the most helpful "Vile" person you will ever meet, especially when battling nature with my portable rig under the ZL1POTA call.

Who Am I? (The Funny Side) 😄

I am a radio operator who believes that this hobby is supposed to be fun. And nothing is funnier than the reality of operating in the field.

My specialty is portable operations - chasing the glorious madness that is Parks on the Air (POTA). It's a world where success is measured by how many contacts you make before the wind rips your dipole in half or a small child asks if your coax cable is a snake.

I'm the guy who forgets the solar charge controller but remembers the emergency pies and chocolate.

And for those wondering what I do during lulls between contacts, I'll occasionally pause a DX QSO to grab a photo of a particularly photogenic piece of roadkill - a quiet, non-radio hobby I've learned not to share at dinner parties. I am certainly the guy who laughs the loudest at his own mistakes, both on and off the air.

What Do I Do? (The Helpful Side) 🛠️

My "Helpful Side" operates on a simple philosophy: There are no stupid questions, only expensive mistakes that lead to great stories. I want to help you avoid the magical coloured smoke, or at least help you understand why your antenna is tangled in a bird's nest whilst taking a photo of you trying to untangle the mess.

When I'm not hauling gear out of the car as ZL1POTA, I focus on projects and new or improved things that could make it easier for the next person... Oh, and Meshcore repeater building! I started that by saying I would just make one to see how it goes... 30+ later, and I'm still seeing how it goes! That's pretty much how 3D printing came about also, and now I have four machines running on most days.

- Need an Elmer for POTA? I'm your guy. I have the patience of a saint (despite the name) to help you get your first activation - even if we have to set up the antenna twice.
- Struggling with battery power or SWR in the field? I will help you prune that dipole until the needle sits flat.
- Confused by the jargon of logging apps? I translate "Engineer" into "Human," and then I give up and put it on paper.

The "Vile" Guarantee

I love this community. The camaraderie, the technical tinkering, and the thrill of the DX chase, whether from my shack or a picnic table. I am here to share what I know, learn what I don't, and keep the frequency clear.

So, if you hear **ZL2BB** or **ZL1POTA** on the bands, don't let the name scare you off. Give me a shout. I promise to give you at least a 3-1 signal report, a friendly chat, and - if you need it - a helping hand to get your station on the air.

Just don't ask me what I stopped to photograph on the drive over.

73,

Rob Vile (ZL2BB / ZL1POTA)

Te Puke Amateur Radio Club Inc.
Branch 53 of NZART

24TH MARKET DAY

Saturday March 7th 2026

**Paengaroa Community Hall.
4 Old Coach Road, Paengaroa.**
(GPS Coordinates: 37.49S 176.24E)

Venue opens for Vendors from 06.30am.

Table Prices

Pre-Sale 1.8 Table \$20.00, On the Day \$25.00

Pre-Sale ½ Table \$12.00, On the Day \$15.00.

Bank Account details for Table Payments:- 03 0474 0030113 00
Please use your Call Sign as Reference.

Sale time 10.00am.

Door Charge \$2.00 per person to help recover costs.

Breakfast Available from 07.30am to 11.00am.

For further information & Table Booking's, Contact Syd Rowe ZL1LWR
Phone (07) 533 1029, Mobile: 0272488664,
Email:- sydrowe@xtra.co.nz

Accommodation available at the Junction Motel,
State Highway 33, Paengaroa.

Solar Update

Solar activity has been at low levels with only a few C1 flares from Region 4307. Slight growth and consolidation were observed in that region as it neared the southwestern limb. Slight decay and separation were observed in Region 4311. The rest of the spotted regions were either stable or in decay. CME analysis will be conducted as imagery becomes available. Solar activity is expected to be low with a slight chance for M-class flares (R1-R2, minor-moderate) December 18 to 20.

Solar wind parameters continued to be under the influence of a negative polarity coronal hole high-speed stream (CH HSS). Solar wind speed was mostly in the 550 to 650 km/s range. HSS influences are expected to gradually diminish December 19 – 20.

Solar activity is expected to continue at low levels over December 19 to 21. There is a chance for R1/R2 (Minor-Moderate) events through December 21. The solar wind environment is expected to remain mildly enhanced over December 19 to 21 as negative polarity CH HSS influences diminish.

Weekly Commentary on the Sun, the Magnetosphere, and the Earth's Ionosphere, December 18, 2025, by F. K. Janda, OK1HH:

The occurrence of an extensive coronal hole in the western half of the solar disk is consistent with the increased speed of the solar wind, as measured by geostationary satellites. The edges of another relatively large coronal hole in the east are likely to be the source of the next period of enhanced solar wind during the coming week. However, overall solar activity is low, as reflected in the low values of the critical frequencies of the F2 ionospheric layer.

The decline in geomagnetic activity in mid-December did, however, have a positive effect on shortwave propagation conditions, albeit mainly at lower frequencies. This included the occasional formation of ionospheric waveguides.

Although solar activity is likely to increase next week, the activity of the Earth's magnetic field is also likely to increase. Therefore, unstable conditions can be expected in the Earth's ionosphere, with short intervals of improvement followed by longer intervals of deterioration in shortwave propagation conditions.

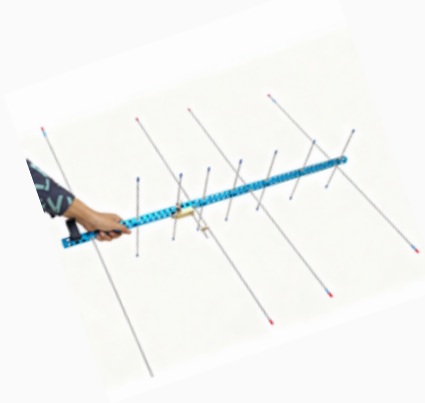
The current Solar Cycle Progression from the NOAA/Space Weather Prediction Center can be found at, Amateur Radio on the International Space Station (ARISS) will mark two major milestones this month with a special Slow Scan Television (SSTV) event aboard the International Space Station (ISS). Beginning November 12 through November 20, the station will transmit a series of 12 commemorative SSTV images, pausing only for a scheduled educational contact.

The Predicted Planetary A Index for December 20 to 26 is 10, 5, 20, 20, 25, 20, and 20, with a mean of 17.1. Predicted Planetary K Index is 3, 2, 5, 5, 5, 5, 5, with a mean of 4.2. 10.7-centimeter flux is 115, 115, 125, 135, 145, 155, 165, with a mean of 136.4.

The "SSTV Spacetacular" will highlight both the recent World Scouting movement's Jamboree-on-the-Air (JOTA) and the 25th anniversary of ARISS ham radio operations on the ISS.

Looking for On the Air magazine? Visit www.arrl.org/ota

Satellite links and frequencies



THE HAM SHACK

The Ham Shack have lightweight VHF/UHF yagi antennas especially designed for satellite work.

Satellite Frequencies

	DOWN LINK.	UP LINK
	LISTEN HERE	TRANSMITT HERE
ISS	437.800 MHz	145.990 MHz
SO-50	436.795 MHz.	145.85 MHz
AO-91	145.960 MHz.	435.250 MHz
PO-101	145.900 MhZ.	437.500 MHz

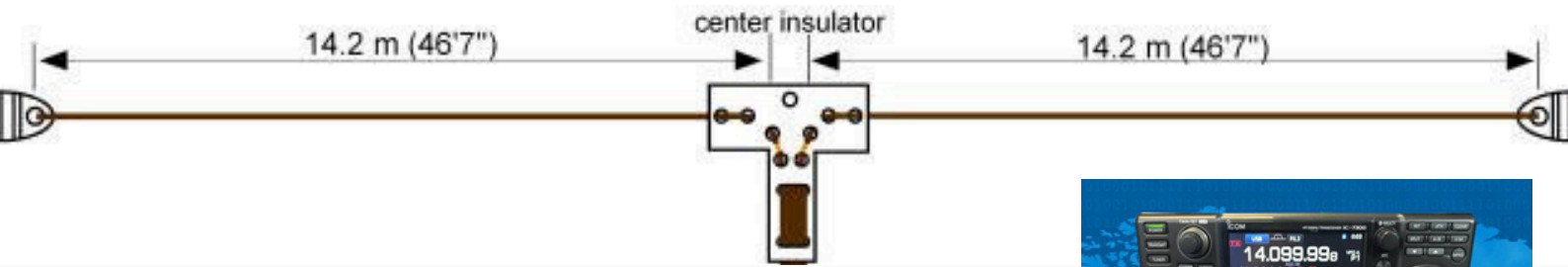
These are FM satellites and can be heard by using any old fm scanner or a cheap ham radio handheld radio.

There are several software options available for tracking amateur radio satellites, including SkyRoof, Gpredict, and SatPC32. These programs provide real-time tracking, pass predictions, and can often interface with radio equipment for Doppler correction.

https://www.dxzone.com/catalog/Software/Satellite_tracking/

I am using this software

<https://github.com/magicbug/Zenith?tab=readme-ov-file>
<https://web.zenithtracker.org/>



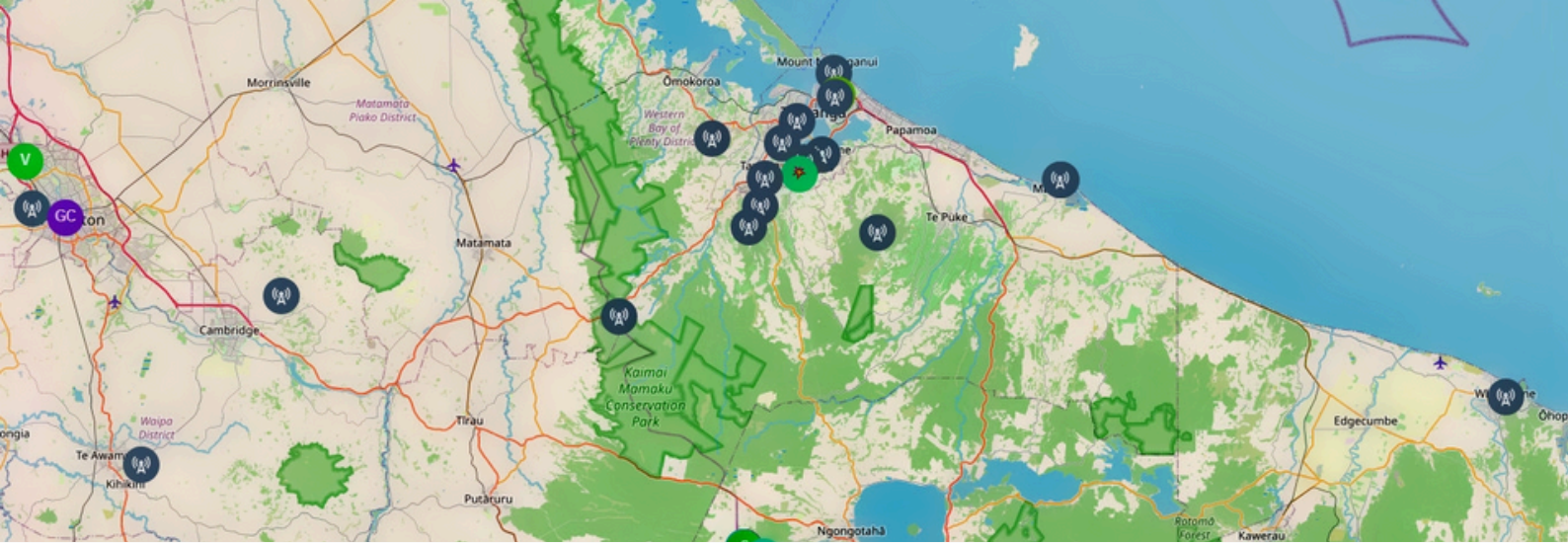
COMPETITION CALENDAR

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



	Jan 6 Tuesday	Jan 7 Wednesday	Jan 8 Thursday	Jan 9 Friday	Jan 10 Saturday	Jan 11 Sunday	Jan 12 Monday	Jan 13 Tuesday
ARS Spartan Sprint								
Worldwide Sideband Activity Contest								
ICWC Medium Speed Test								
QRP Fox Hunt								
Phone Weekly Test								
A1Club AWT								
CWops Test (CWT)								
VHF-UHF FT8 Activity Contest								
Mini-Test 40								
Mini-Test 80								
CWops Test (CWT)								
UKEICC 80m Contest								
CWops Test (CWT)								
CWops Test (CWT)								
NCCC FT4 Sprint								
Weekly RTTY Test								
QRP Fox Hunt								
NCCC Sprint								
K1USN Slow Speed Test								
YB DX Contest								
Old New Year Contest								
SKCC Weekend Sprintathon								
UBA PSK63 Prefix Contest								
North American QSO Party, CW								
NRAU-Baltic Contest, SSB								
NRAU-Baltic Contest, CW								
DARC 10-Meter Contest								
RSGB AFS Contest, Data								
K1USN Slow Speed Test								
4 States QRP Group Second Sunday Sprint								
ICWC Medium Speed Test								
OK1WC Memorial (MWC)								
ICWC Medium Speed Test								
Worldwide Sideband Activity Contest								
ICWC Medium Speed Test								
DARC RTTY Sprint								

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MeshCore - Bay of Plenty Communication Network!

Community Appeal: Help Build a Resilient Bay of Plenty Communication Network!

Seeking High-Ground Hosts for Off-Grid Emergency Comms in our region.

Kia Ora, Bay of Plenty Community!

I am establishing a crucial, off-grid communication network using **MeshCore** - a secure, text-based system that works over long-range, low-power LoRa radio. This network is designed to keep our community connected during emergencies, natural disasters, or any event where traditional internet and cell services fail.

We are specifically seeking suitable, high-altitude installation spots around **Te Puke, Papamoa Hills, Welcome Bay, Kaimai, Te Puna, Matakana Island, Omokoroa, Katikati and the surrounding rural areas (e.g., Paengaroa, Oropi).**

What We Need: An Installation Site

The ideal site provides **maximum altitude** for line-of-sight coverage - a high-point on a hill, a farmhouse on a rise, or a pole in a paddock.

- **Location:** High-ground properties in Te Puke, Papamoa, and the surrounding rural areas.
- **Altitude:** The higher, the better!
- **Access:** We only need temporary access for installation and occasional maintenance.
- **Power:** The units are completely standalone - powered by a small solar panel and battery. **No connection to your property's power or internet is needed.**

About the Repeater Unit

The units are designed to be extremely discrete:

- **Size:** Approximately 150mm×100mm (about the size of a small novel).
- **Appearance:** Unobtrusive, with a small antenna (no dish).
- **Weight:** Just a few hundred grams.
- **Function:** Silent, low-power, and secure text messaging repeaters.

The Benefit to You and the Community

By hosting a MeshCore repeater, you directly contribute to:

1. **Emergency Resilience:** Ensuring vital communication channels remain open when they are needed most.
2. **Community Safety:** Connecting rural and remote users to the wider Bay of Plenty network.
3. **Future-Proofing: Building** a decentralized network that belongs to the community.

If you own or manage a property in the **The Bay of Plenty** areas that offer excellent elevation and are interested in supporting this vital community project, please reach out!

Thank you for helping to make the Bay of Plenty safer and more connected.

meshcore@kiwiasylum.com
0274212073



SOFTWARE FOR BAND PREDICTION

<https://grafana.gafner.net/d/vt3lLoxGz/international-cw-beacon-monitor-athb9vqq?orgId=1>

<https://grafana.gafner.net/d/kAZyp6bMz/solar-indices-and-ham-radio-propagation?orgId=1>

<https://grafana.gafner.net/d/cf4wk21m3mbr4b/current-hf-band-dx-conditions-and-forecast?continue=1&orgId=1&refresh=1d>



2026 Annual PARG

Amateur Radio Raffle Prizes

1st Prize valued at \$2,000

Icom voucher to the value of \$2000

2nd Prize valued at \$700

Icom voucher to the value of \$700

3rd Prize valued at \$300

Icom voucher to the value of \$300

Draw Date: 7th of February 2026 at PARGfest Swap Meet.

Cash sale of tickets available on the day.

Tickets are for sale now online in NSW, QLD, SA, TAS, WA at \$5 each.



<https://rafflelink.com.au/parg2026>

<https://www.parg.org.au/>

Peel Amateur Radio Group

PARGFEST Swap-Meet
Saturday 7th February 2026

Mandurah Bowling Club
89 Allnutt Street, Mandurah WA.

Doors Open:
0800 – Exhibitors & Sellers
0900 – 1230 Buyers
Entry Fee - \$5.00 per person
See you there amongst the raffles and bargains!

Please check www.parg.org.au/whatsnew for last-minute updates.
Call-in to VK6ARG in PARG1 – AllStar & 146.850Mhz with 91.5Hz sub-tone
For more information call Peter 0432718026 or email parg.secretary@gmail.com

Merry Christmas and Happy New Year from everyone at the Peel Amateur Radio Group Inc.

AUSTRALIAN HAM EVENTS



Ballarat Amateur Radio Group Inc. (BARG)

HAMVENTION

Sunday February 1 2026

At the Ballarat Polocrosse Club's Facility,
207 Airport Rd, Mitchell Park

Display and Sales (setup from 8am on the day)

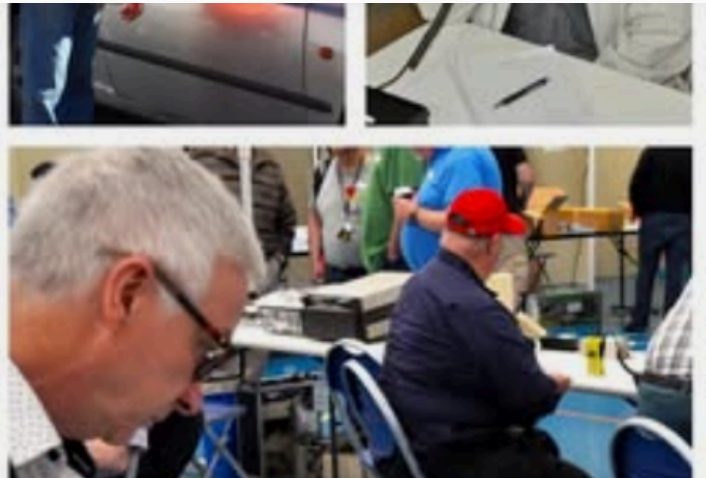
Trade Table \$20.00 includes one admission,
(Space for 70+ tables, this is a big one!)

General Admission \$ 10.00 (accompanied under 15 free)

STRICTLY 10:00 AM START

BBQ and drink will be available on the premises

Enquiries and up to date details: BARG on the web www.barg.org.au



Group by Hamfests Australasia

Hamfests Australasia Group

Public group · 2.9K members



+ Invite

Share

Joined

▼

RADIO STUFF : HOW IT ALL STARTED. GARY LODGE



It started with a Tait CB unit. In the 80's and 90's Carol and I had a dairy farm in the Waikato, as well as the dairy unit we operated a rural contracting business, undersowing and maize planting. In the days before mobile phones (yes it does seem a long time ago) the CB was crucial to the operation, sitting on the kitchen bench it enabled the timely supply of fuel, food seed, fertilizer and directions to the next farm. (No GPS either in those days). We shared our channel with Hamilton Placemakers and an electrical company.

The next bit of kit was the "brick phone", this worked very well as long as you weren't working in a dead spot out the back of Raglan or Te Pahu.

For many years we belonged to the Geysersland 4x4 Club where we were introduced to the PRS and wider use of CB radios. These were fun times. I had a 1989 Nissan Safari which I owned for 21 years and did 800,000 Km with. Over many years we were involved in the running and marshalling of multi day events such as the Urewera Hunt Club Safari, Motu School Safari and Kawhia Safaris. These events covered big areas, challenging terrain and large numbers of participants.

It was through 4x4 that I met the late Paul Manley ZL2CQ. Paul was an enthusiastic advocate of 4x4, Ham radio, DX and Community radio. He got me hooked.

I signed up for the very first Hamcram which was held by Branch 13 Hastings on 4 September 2009 as reported in the September 2009 issue of Break In. Next step was a vertical antenna on the roof followed shortly after by a multi band dipole. My first radio was an Icom 7000

I joined NZART and initially belonged to Branch 12 Hamilton and later to REG group the Radio Electronics Group, Branch 89 also in Hamilton.

Branch 89 is a particularly active group regularly providing radio communications for hill climbs, school cycle races and other events. On the annual calendar there is the Bridge To Bridge Water Ski race held on the Waikato River from Taupiri through Mystery Creek and Hamilton to Cambridge a distance of 82 km. As you are on boats life jackets are provided and your gear needs to be waterproof.

Other annual events included the Colville Connection a mountain bike race at the top end of the Coromandel Peninsula and the gruelling 42 Traverse. The 42 Traverse is a 46 km journey through the wilderness area between Tongariro National Park and Owonga in the central North Island. In pre Starlink days this necessitated the use of satellite phones. Radio operators such as myself were also the 4x4 drivers carrying St. Johns personnel.

Each year Branch 89 and Branch 60 Taupo work together to support the Lake Taupo Cycle Challenge. Radio operators work sections around the lake and liaise with traffic management, police, ambulances, water stations and support crews. When necessary and depending on the weather conditions we would pick up riders who were dehydrated, hypothermic, tired or injured. With over 1000 riders from around the world competing at various levels some doing around the lake twice it is always a massive event. Over a distance of 100 kms and lots of hills and sometimes difficult circumstances for riders, maintaining good communication and radio protocol is paramount.

The North Island Horse Endurance Championships again held in Taupo was another big event for radio operators, this event would start at 2am and run until very late in the day when the last horses came in.

Car rallies also featured on the club calendar, these included the annual Rally of Whangarei and Rotorua and rounds of the Rally of New Zealand. Early starts but excellent viewing positions! For the Rotorua 4x4 club the TARGA Rally was always the biggie, as a group of radio operators we were also the qualified and accredited members of the rally recovery team and followed the entire rally. I still hold that certification.





At home I enjoy DX and working other hams from around the world and currently have over 130 countries marked on the world map. Another area of involvement was working with DOC doing pest control in Pureora Forest. My interest in portable radio communication was sparked by the difficulties encountered in maintaining radio communication in wet, forested areas even over quite short distances.



I have arrived at Ham Radio as a hobby through my other interests rather than through my career or employment. Since moving to Blenheim just over two years ago my main interest has been with POTA. Having our caravan set up for radio and all year round travel is wonderful and enables us to go to places we would probably not otherwise go. On the technical front it is definitely a challenge to have my gear working efficiently and reliably under all sorts of conditions. I enjoy making antennas and working mostly HF but also UHF and VHF. I participate in fieldays ,Alpine Net Sprints and competitions such as Oceania , the NZART Memorial competition and others. Every day I learn something new...

On a personal level through Ham radio I am meeting a terrific group of like minded, clever people who are always willing to share their knowledge, expertise and quite often their gear and have fun doing it....

Gary Lodge
ZL1GA
ZL1WL



Home Station



HOW MANY RADIALS ARE ENOUGH

Short answer: it depends what you're prepared to live with — performance vs effort.

Ground-mounted $\frac{1}{4}$ -wave vertical (classic case)

- 120 radials → textbook, near-perfect ground system
- 60 radials → ~95% of ideal performance
- 30 radials → ~90% of ideal (perfectly workable)
- 16 radials → noticeable ground loss, but still usable
- 4 radials → it will load and radiate, but it's compromised

Radial length matters less than count.

Many short radials beat a few long ones every time.

Elevated $\frac{1}{4}$ -wave vertical

This is a different animal.

- 2 radials → works, but asymmetrical pattern
- 3 radials → better, still not ideal
- 4 radials ($\frac{1}{4}$ -wave each) → the sweet spot
- More than 4 → diminishing returns fast

Elevated radials must be resonant and tuned. Ground radials do not.

Real-world advice (telling it like it is)

- If it's ground-mounted and you can only manage one thing:
- Put down as many radials as you can, even if they're short and ugly.
- If it's elevated:
- Four tuned radials, done properly, will outperform a ground mount with 16 radials.

Practical rule of thumb

- Portable / temporary: 4–8 radials, any length
- Home HF vertical: aim for 30+ radials, add more over time
- "I want it to work properly": 60+ radials

Comment

For my POTA vertical antenna (commercial vehicle antenna) on a ground spike I have 3 radials 2.5m long and this gives me an SWR of less than 1.5:1

Greg ZL1GUD



Larry's awards

F5PYI

A lot of us NZ hams have spoken to Larry on 40m during POTA activations and here is a little bit about him. All from QRZ, however we have asked him to send us a bio and photographs for a future edition.

My name is Larry, I live South of Lyon, Southern France.

I am the owner of a small campsite where you are welcome to come any time to cross France : <https://camping-maclas.fr>

I am a HAM Since 1980.

Full DXCC for years I am now fan of remote areas, and any interesting qso out of the usual 59's.

Also looking for Parks On The Air (POTA), I see in this program a positive reply to nature preservation round the world.

Look for our Facbook group : POTA FRANCE.

My qth is located into a POTA FR-1433 and FFF-0096. Just as SOTA and Flora Fauna around the world.

Best 73's de Larry One of the Lyon DX Gang (I was in FR/F6KDF/T team : Tromelin island 2000)

POTA ON !

The How and Why of the PMR171

Videos by Nick ZL2NEB

Click on each image for the link to the video



PMR-171 Quick Tips, AF & RF Settings



PMR-171 Quick Tips, Noise Reduction



PMR-171 Quick Tips, USB & Keyboard



PMR-171 Quick Tips, Tuner & CW Volume



PMR-171 Quick Tips, SWR, AUD, ALC Meter Display



PMR-171 Quick Tips, using the tuner



PMR-171 Quick Tips, Power settings

For the POTA new comers this shows you how to get started.

Click on image for link to the video



A Guide to Getting Started With POTA Activations in NZ

BUILDING THE ADX DIGI MODES TRANSCEIVER

CARMEL VK2NO



Finished unit with bottom board 'enclosure'; a 3D printed case is also available.

Recently I had the opportunity to construct the ADX (Arduino Digital Xceiver), a multi-band QRP transceiver dedicated to digital modes covering FT8, JS8, FT4 and WSPR. Richard VK2ARH/W5ARH procured parts for the project for a MWRS group 'buildathon,' which he also successfully conducted for the Cowtown ARC, Fort Worth Texas.

The ADX, designed by Barbaros, or 'Barb', WB2CBA, is a relatively compact QRP digital modes transceiver ideal for portable operations. When using with WSJT-X and GridTracker, or the Android app FT8CN, you could go anywhere for some digital QRP fun on only 2-5 watts depending on battery (up to 12 volts -no higher) and how well you wound your LPF toroids. I use 3 x 3.7v nominal 18650 6.5Ah batteries. Some have even run the ADX on a 9-volt battery and received distant contacts on 1 watt or less.

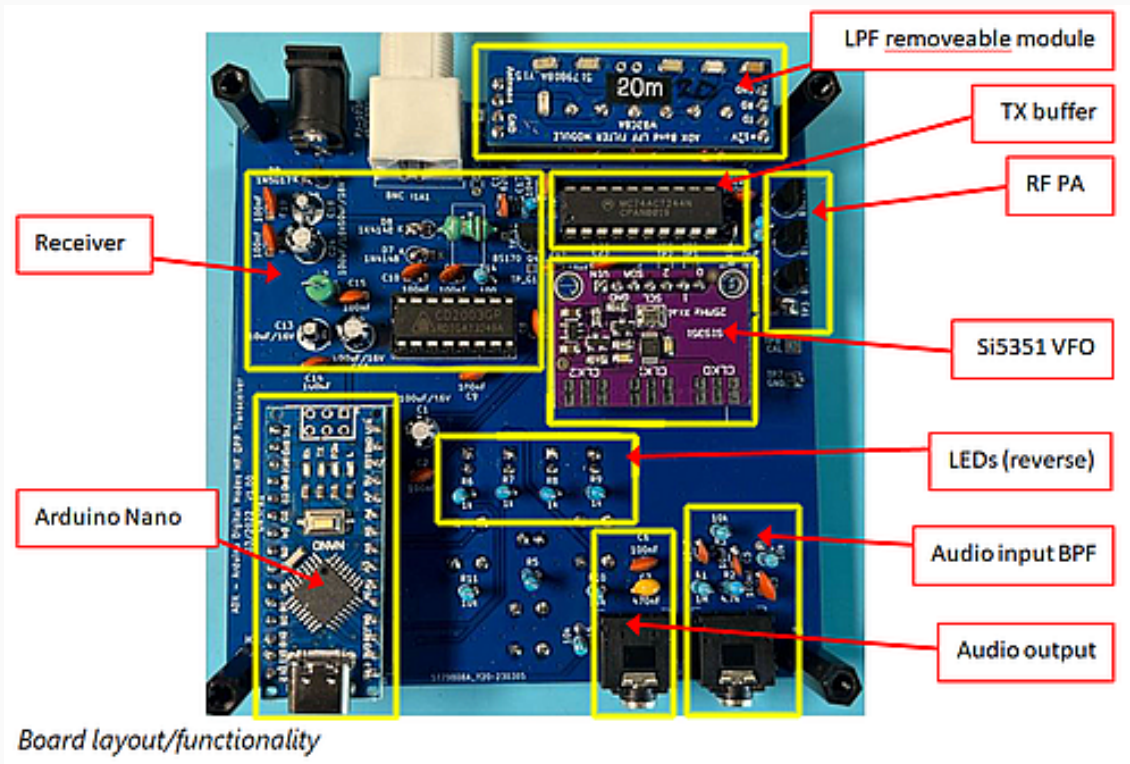
No problem getting into Switzerland on three watts. At ~12 volts, typical band power ranges from three to five watts, 10m to 80m respectfully. Using an Arduino Nano, the ADX supports four bands, accessed by swapping out the plug-in LPF band modules. More bands can be used by modifying the Arduino sketch, for example...

```
:  
Int Band1 = 80; // Band 1 (swapped from '40')  
Int Band2 = 20; // Band 2  
Int Band3 = 15; // Band 3  
Int Band4 = 10; // Band 4
```

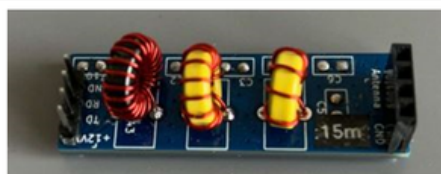


Best to make a label for your programmed bands in case you forget, as selecting a band with the wrong LPF could result in a Smoky Dawson visit.

The build is pretty straightforward and requires a few voltage tests along the way, plus a VCXO clock calibration. The PA consists of three x BS170 MOSFETS which can be a bit touchy to handle. An anti-static wrist guard is recommended, though some even recommend switching off your solder station and unplugging it. Being class E the MOSFETS are efficient with little heat generated, though somewhat sensitive to high SWR, so an inline reflectometer is recommended. Here's a basic layout of the board functionality...



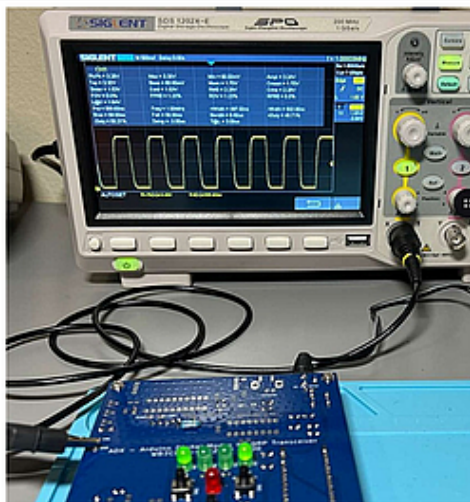
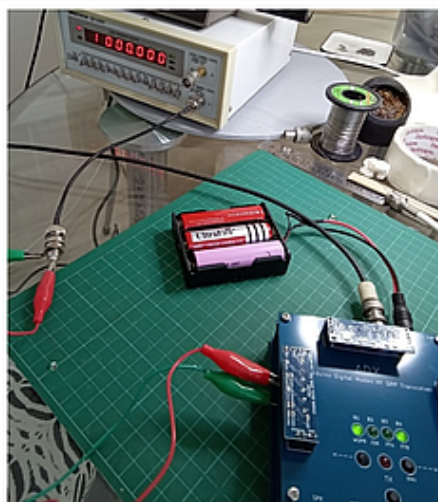
The LPFs are essentially a set of four toroids wound for each band with pin headers for securing in place. The swap-out is quick.



15M LPF finished; standby bands can be 'piggy-backed' on top of the ADX.

Changing bands is a simple process where you plug in the band LPF you want and then tell the Arduino the desired band by pressing both the Down and Up buttons (<- - ->) together momentarily, and then pressing the Up or Down button to select the band and tapping <TX> once to set. When powered on, the currently-selected band LED flashes, and then the mode LED remains on, where you can change the mode via the same Up/Down buttons alone.

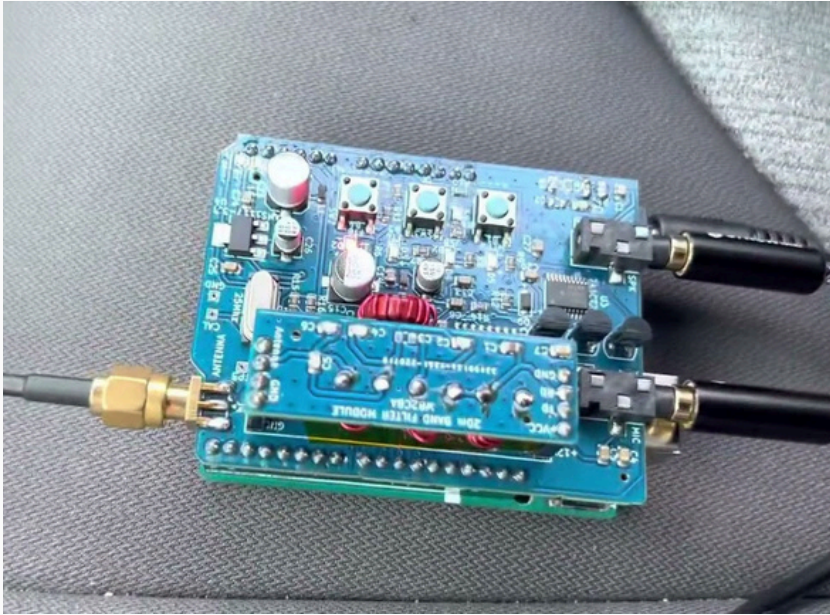
The board utilizes an Adafruit Si5351 CMOS clock generator VCXO. You calibrate this during the build process to get an output calibration reference frequency of 1MHz via the CAL and GND pins on the board. Use a scope and get a square wave, or use a frequency counter. I was lucky to also have an accurate counter (for a Digitech that is) comparing with the scope, to get the clock spot on 1MHz after an initial two minute warm up. This saved time on excessive fine tuning later, avoiding multiple button-presses. Always allow for warm-up. Fine tuning is done via a transceiver having a band scope such as an IC-7300, or even by using a Kiwi SDR, with just tapping the Up/Down buttons on the ADX a few more times to match the correct frequency.



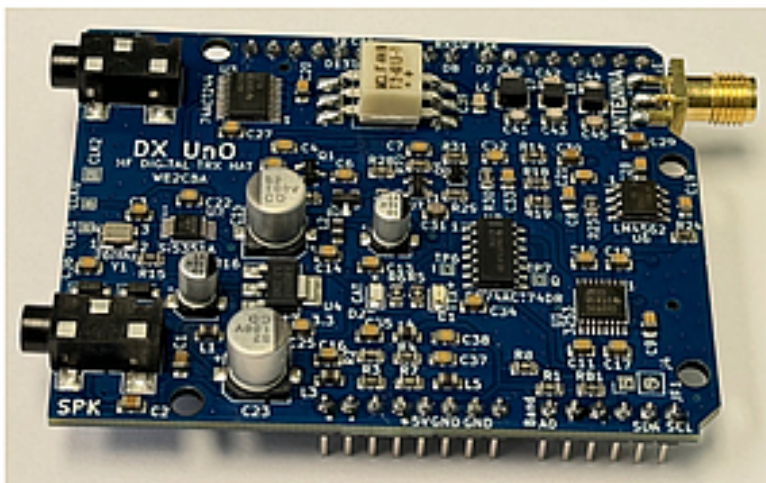
Initial calibration mode is enabled by momentarily holding the right-side button down while powering up ADX.

Cost of the ADX? Kit components and a small profit totalled \$48.00ea (this was via a group build).

The ADX is evolving with several design improvements; there is an ADX Pocket, a smaller version, plus a mini Uno version with compact swap-out band modules. The 20-turn toroid common amongst all the band LPFs in the modules has been integrated to the main board –a design improvement with less winding to do :)



Currently in design/production is an all-SMD 4-band DX-Uno no wider than a credit card.



DX Uno

Other stuff rapidly developed include a Barb-a-Watt QRP SWR meter with dummy load.



Barb-a-Watt QRP SWR meter

A pocket antenna matcher is now available which is very compact and essential for those pesky BS170s.



Pocket T-matcher also designed by Barb (he is a busy boy)

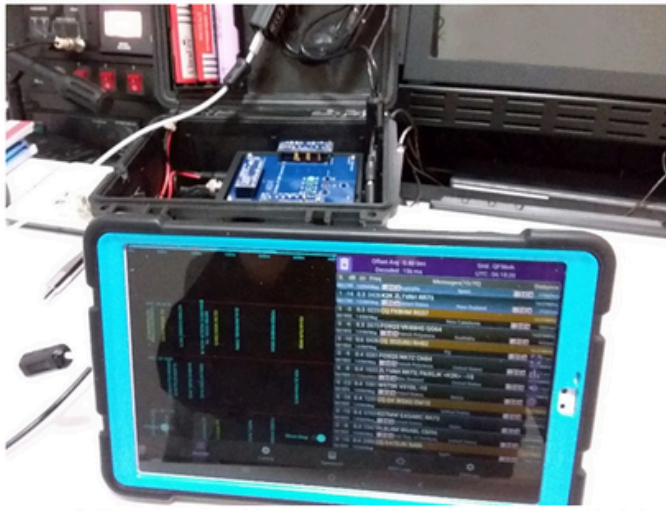
I guess it all adds up in cost if you want the entire range of complementary products, but for now happy to use my T1 or Emtec Z-matcher.

You may also be aware of the ADX-S version which came out a year ago or so, designed with a 6dB protection from local BCI; however, this resulted in consequential signal attenuation, now resolved I believe. Both the ADX and ADX-S are worthwhile projects; much cheaper than buying an expensive Xiegu that may have the same features, for those lazy hams, hi.

Getting back to my ADX transceiver build, it works well and I have had no issues.



Successful test at home QTH using WSJT-X, three watts into Fiji on 20m. An external USB sound card (Sabrent) is used here.



Now fully-mounted in a portable case using a Digirig USB sound card, a TRRS splitter, and my tablet phone (and antenna of course), ready to go portable.

Some folks have had issues with the Arduino (mostly by plugging in the wrong way round) and some PA issues. I only had an issue with a faulty BNC where there was no continuity to ground and the barrel started to come loose :- it was difficult to pull out and the old desktop solder sucker was tired so I used braid and a sewing needle to push out the pins and avoid the holes filling with solder; better than using a tooth pick :)

Had a lot of fun building the ADX, and while I'm not that big on initiating lazy digital modes, I enjoyed building another QRP transceiver and reaching across the world on three watts.



First successful 15m FT8 test off-site on three watts into Fiji again, with Richard VK2ARH.

CR Kits is one seller though somewhat pricey. It's best to search online as other sellers may be cheaper.

Links:

Barb's research

<https://antrak.org.tr/blog/adx-arduino-digital-transceiver/>

Peter Parker's ADX-S description

<https://m.youtube.com/watch?v=FGH0kUvkqX0>

Source files

<https://github.com/WB2CBA/ADX>



MORSE CODE - STORIES

CARYN KD2GUT

"Squirrels are the best thing to grow on trees."

Peace-loving vegetarian that I am, I was shocked to find myself so eager to go hunting reindeer. Yet there I was, very much in hunt-and-pounce mode, a predator with a paddle.

This was the Straight Key Century Club's monthly Weekend Sprintathon - the popular, seasonally themed WES, as it's known. The theme for December's 36-hour challenge: Reindeer stations.

Unlike Rudolph, I was very welcome to join in this reindeer game, never mind that my nose was still shining bright red from being out in the heavy snowfall we'd had overnight. The chase for the ops with the holiday names was on! I smashed Dasher; I blitzed Blitzen. Equal opportunity offender, I moved on past the quadripeds to the bipeds, nailing Scrooge and spearing Santa with the same deadly Vibroplex -- and then I reached across the pond to grab myself an Elf.

Yes, I know that was all very naughty of me and my fellow ops. Fortunately for me, I was already out of the reach of The Krampus, the hooved, goat-faced Christmas Beast who one week earlier enjoyed his own time in the spotlight during the observance of Krampusnacht. (Yes, he got his own special event station - K2K - organised by me because the Krampus' enforcement of bad behaviour in children reminds us big kids to play nice with one another when we're on the air.)

Now that the SKCC chase is over for another year, we can start jingling all the way toward the new year - our nets, our emergency drills and the more serious business for which we are entrusted with our licences.

Still there's nothing like getting silly together, every now and again, to strengthen our on-the-air community. No, it's not just for the holiday spirit - it's for the spirit of amateur radio itself.

CARYN

KD2GUT





SOTA OPERATORS

MATT ZL4NVW

Resolution Island – North Plateau Disappointment Cove blocks

Following a successful 3-day trip to Resolution Island in early March with Southern Conservation Volunteer Network, I was invited back to do a full week of work there with their main trapping crew. Being the unpaid volunteer I was given the choice of which block I wanted – and after consulting a map of SOTA summits on the Island chose the North East block covering the North Plateau and Disappointment Cove. This block included Mt Wales – ZL3/FL-754 and pt554 (ZL3/FL-809) and puts me within a couple of ridgeline-kilometers of Mt Lort (FL-763) and pt790 (FL-791).



Drop-off was by helicopter at North Plateau Biv. As usual, the contrast between the chaos, clatter and adrenaline of a heli-dropoff and the following serenity and isolation was immense. To the north the coast of Fiordland stretched away into the distance, a series of bays and snub-nosed peninsulas, each fading successively fainter to grey.



Fiordland west coast from North Plateau Biv

North Plateau Biv is typical of the island's huts. A two bunk hut tucked in the meager shelter of the scrub, its back to the prevailing wind. There are 8-or-so such huts on the island, installed, provisioned and kept locked for biodiversity workers. All include 12v / 36w solar power into a single sealed-lead-acid battery, solar lighting and gas cookers. And all have bedding and emergency provisions, meaning that trappers need only bring sheets / sleeping-bag-liners and food for their expected trip. Which is handy when you're shifting between multiple sites during your stint and carrying tools and several kilos of bait for your work.

A local bush-clad trapline north down to the coast and back filled in day 1 nicely.



North Plateau Biv

Day 2 – Sunday

Day two on the Island dawned clear and bright and so seemed ideal for the ridgeline run between Mt Lort and Mt Wales. The traplines below the bushline are marked and cut to tramping-track standard, but even so it was nearly 2pm before I broke the bushline between Mt Lort and Mt Wales.



Mt Lort ZL3/FL-763 (left) and Mt Roa ZL3/FL-772 (right). Five Fingers peninsula beyond

Dropping the trapping gear I took the 2km diversion to Mt Lort. In contrast to the bush, the traplines along the tops are not cut and are far slower travel as a result through roly-poly tussock and low scrub. The 2km scramble took almost an hour. Time was getting short by the time I arrived – I needed to be back at the hut for an 8pm radio sched that evening. So I hurriedly erected the antenna and got out the radio gear ... only to find the 'bits bag' containing mic, power cables and patch lead was missing. A few words were had on the hour-long tramp back to my trapping gear at the ridgeline junction.



The glorious weather continued, and lack of water was the main issue continuing east over Mt Wales – the first of several visits to that peak. I don't think I've ever run out of water in Fiordland before – a sign of the extreme drought conditions currently covering the far south. Thankfully a small tarn below the summit retained a pool and refreshed and replenished the remained of the day was an enjoyable ridgeline potter as the glare of the day faded to subtler evening shades.

Day 3 – Monday

Day three dawned misty, a drifting smirr coating vegetation and worker alike. A low-level bush circuit of traplines north-east of the biv took me over the bush-clad pt544 for the first SOTA successful activation of the trip. 10 contacts on a mix of 40m and 20m ticked off both the summit and the POTA park, as mist turned to rain – despite an antenna more 'draped' through the maze of branches than 'deployed'.

Later that day, finding myself at my last trap and within a kilometer of the peak, I detoured back through the mistcovered ridgeline to Mt Wales to activate that peak, a rapid, damp and windy affair that still netted 8 ZL and VK contacts – mainly on 20m. The activation photo shows only a line of coax suspended from the mist.

Back at the hut, 8pm that night, I turn on 20m whilst cooking tea - to find it wall-to-wall S9+ with European stations. Selecting my favoured low-power approach of scan & pounce, I pick up DK7LJ – Per in Kiel on the Baltic coast, making his initial call. Getting in before the pile-up has time to arrive and swamp my near-QRP signals, we managed a comfortable 59/55 SSB QSO. Around the world on 20w, again! Don't you just love it when 20m puts on its magic hour.





The various moods of Breaksea Sound – all from Mt Wales ZL3/FL-754 on successive days

Day 5 – Wednesday

Day 5 (of 7) saw me with just 1 trapline loop to run, so I took the luxury of splitting the loop with an overnight at Mt Wales Biv, 1km south of the peak of the same name. I had relocated to Disappointment Cove on the Tuesday, so for the first time had to climb all 974 meters of Mt Wales to reach the summit for the 5th time. Poor weather was forecast for Thursday, and the cloud moved in as I crossed the tops, making for an atmospheric crossing.



Weather arriving to Mt Wales – taken from above Wales Biv at the saddle with ZL3/FL-791

Mt Wales Biv sits at the far end of a small tarn, just off the ridgeline connecting Mt Wales to the other peaks towards the south-east of the island. A lovely sheltered spot, above the worst of the sandflies and with the only fresh-water swim of the trip. And as a bonus, an additional SOTA-summit – ZL3/FL-791 - 500m from the biv.

20m was again doing its magic again that evening netted another three European contacts including Wolf - DK8MZ, special event station I16WRTC and Frank – F5PAU – monsieur ‘only outside Europe’ – who I have failed to contact on numerous previous occasions. Reports received varied from 5/5 to 5/6, again all with 20w.



Mt Wales Biv – ZL3/FL-791 beyond

Day 6 Thursday

All that remained to do was rebait the remainder of the loop back to Disappointment Cove. The forecast rain held off until nightfall, so a final pleasant day of trapping resulted. A night on the NZ QRP net finished off the week's radio activities. Friday was spent on hut maintenance – scrubbing, cleaning and clearing vegetation - and I was almost ready to abandon the isolation and splendor for the chopper ride back to civilisation (or the nearest curry-house at least) by Saturday morning.



Disappointment Cove

Logs

All contacts are:

- ZLI/SL-239 – Resolution Island (ZLOTA Islands award)
- ZL-0042 - Fiordland National Park (POTA)
- ZLFF-0004 – Fiordland (WWFF)

ZR1AAH - Africa Correspondent

MUIZENBERG PEAK SOTA ZS/WC-064

ALLEN WOOD

The second peak of my circular "three peak" activation hike.

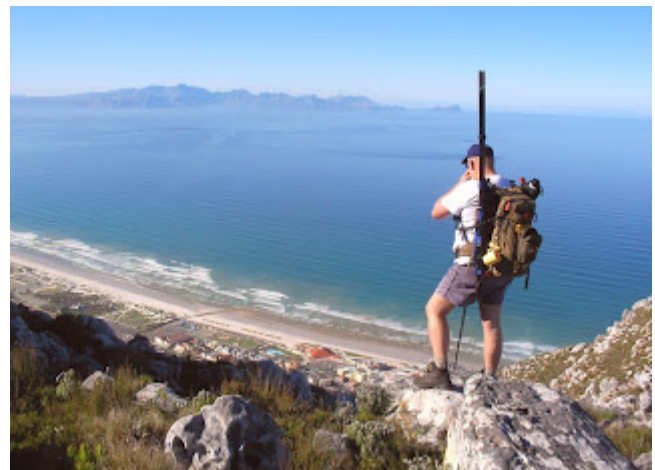
The photos below were taken on a subsequent hike with Dennis, ZS1TC. Being rather unfit we took it easy and only activated the one peak. Our route was from the parking lot up along the gravel track, past the naval antennas and onto the Muizenberg ridge. The homeward leg was roughly along the same route.



ZR1AAH . Things getting a bit "edgy" after taking a short cut on the Muizenberg ridge!



I am sitting among the rocks on the ridge operating my FT817 with a telescopic vertical antenna on 40m via a Elecraft T1 tuner.



ZS1TC. Looking over False Bay with Cape Hanglip in the distant background. (his B25 is hidden in the backpack)



Dennis's', (ZS1TC), B25 doing sterling service in the mountains! A heavy beast to carry around but works well.

ZR1AAH, relaxed operator, admiring the view !



ZR1AAH Allan as radio operator on Marion Island!





IF YOU ARE SERIOUS ABOUT DX - HAM RADIO DX BY 4X6TT

<https://www.facebook.com/groups/1541804640468327>

This group is dedicated to promoting our great hobby of amateur radio. We welcome all posts related to DXing, contesting, special activities, and any ideas that help grow and inspire the next generation of radio amateurs. Feel free to share, participate, and contribute—our goal is to expand the hobby and keep it active, exciting, and open to everyone.





IC7300 vs IC7300Mk2

Icom 7300 vs 7300MK2 is a common comparison for operators choosing a modern HF transceiver. The original IC-7300 set a high bar with its direct-sampling SDR architecture, and the MK2 refines that platform with incremental but meaningful updates.

Overall, both radios deliver excellent on-air performance for contesting, casual DXing, and ragchews, but the MK2 focuses on user-driven improvements. Consequently, choosing between them comes down to which refinements matter most to your operating style.

Performance Differences

The base receiver architecture remains direct-sampling SDR in both models, which preserves strong sensitivity and audio clarity. However, the MK2 typically shows slightly improved spurious signal handling and a marginally lower noise floor. Thanks to new firmware and front-end tuning.

In practice you will notice crisper audio and fewer artifacts when operating crowded bands. Therefore the MK2 gives a small but useful advantage in challenging band conditions. Transmit performance remains excellent in both radios. Both deliver clean audio and reliable power output; nonetheless. The MK2 sometimes includes optimized keying and ALC behaviors that tidy up voice peaks. If you push the radio into contests or high-duty-cycle work, the MK2's thermal and power-management provides steadier performance.

Display and User Interface

Both radios use a large touchscreen that combines spectrum/waterfall with traditional control elements, making operation intuitive. Moreover, the MK2 refines the display software so menus feel slightly faster and more responsive. This speeds common tasks like filter selection and memory tuning.

The MK2 also improves contrast and touch responsiveness in some units, so operators working outdoors or with gloves may prefer it. Still, the original IC-7300's screen remains highly functional, and many users find no practical difference in day-to-day use.

Filters, DSP, and Signal Processing

Icom equipped both models with powerful DSP that handles AGC, noise reduction, and automatic notch features well. Additionally, the MK2 often ships with updated DSP profiles and extra selectable filter shapes that make narrow CW and crowded SSB work cleaner.

Therefore, you can tighten your receive bandwidth without losing immediately useful audio, and this helps with close-in interference. Both radios support multiple IF filter settings and software-defined roofing filters that reduce overload on strong-signal environments.

However, the MK2's firmware tweaks improve filter switching speed and reduce transient noise when changing settings.

Features and Modes

Both radios support the full set of HF/50 MHz modes, RTTY and PSK via soundcard interfaces, and convenient USB audio/CI-V control. Furthermore, the MK2 commonly introduces minor firmware-driven features such as expanded memory handling, quicker band stacking register recall, and more flexible CW keyer options.

If digital-mode integration matters, both radios work well with modern digital suites, and therefore you'll face no compatibility issues. The MK2 also tends to receive periodic feature additions sooner, because Icom used the MK2 release to incorporate community-requested improvements.

Accessories and Expandability

Standard accessories like external antenna tuners, genuine Icom filters, and external speakers plug into both radios without issue. Moreover, the MK2 sometimes ships bundled with updated manuals or accessory recommendations that reflect newer third-party cable pinouts.

Both radios accept the same microphone and external keyer accessories, and thus your existing add-ons will usually remain compatible. If you plan to use optional front-panel upgrades or external pan adapters, check vendor notes because a few niche accessories may require firmware-specific settings that the MK2 handles more gracefully.

Practical Considerations and Use Cases

If you already own an IC-7300, upgrading to an MK2 yields modest but tangible gains in user experience and marginal performance under heavy-signal conditions. On the other hand, a new buyer choosing between the two should weigh price and availability.

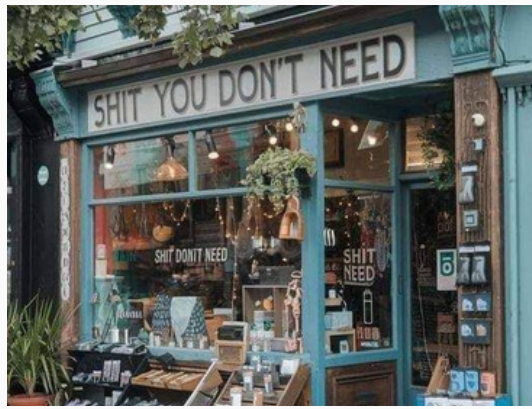
The MK2 typically commands a premium, therefore you get the latest firmware baseline and reduced need for immediate updates. For contesters and DXers who operate long sessions, the MK2's refinements in stability and filter behavior can add up to more effective operating time.

Final Thoughts On Icom 7300 vs 7300MK2

The Icom 7300 vs 7300MK2, they both remain excellent choices for modern HF enthusiasts, and each retains the clean SDR sound and usability that made the platform popular.

Ultimately, the MK2 polishes the original, adding firmware, UI, and filtering refinements so buy the MK2 if you want the newest steady-state experience. However, if budget and value carry more weight, the original IC-7300 continues to deliver exceptional performance and widespread accessory compatibility.

<https://hamshackreviews.com/icom-7300-vs-7300mk2/>



CLASSIFIED

FOR SALE - TOWER



Commercially made centre pivot tower
10 m high/long including 4 x new 1m long
mounting bolts with nuts. Top plate
includes bolts at standard Yaesu rotator mount
centres.

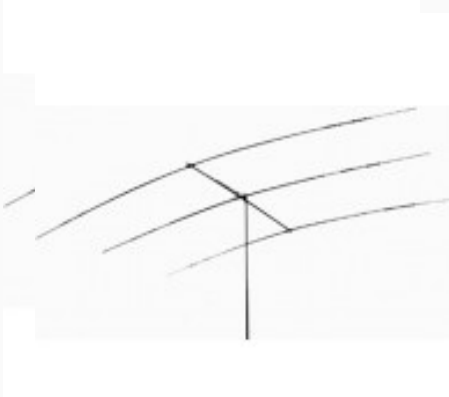
Great condition
*Reason for selling I have found a 24m lattice tower
that I am going to install.*

Cost \$995 (it is on the ground but you will need a
haib and truck to relocate)

Location - Loburn, Canterbury

Greg ZL1GUD@proton.me
+64 221 229 240

FOR SALE - TH3 3 element yagi for 10, 15 & 20m Pre-Owned



Gain: 5.8 dBd (avg.).
F/B Ratio: 25 dB (avg.).
Max Power: 600 Watts PEP.
Boom Length: 12 Feet.
Longest Element: 27 Feet 3 inches.
Turning Radius: 14 feet 9 inches.
Mast Diameter: 1.25 - 2.0 inches OD.
Surface Area: 3.35 sq. feet.
Net weight: 21 pounds.
Wind Survival: 80 mph.

Cost \$500

Location - Loburn, Canterbury

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+64 221 229 240

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