

The Official Newsletter of the Auckland VHF Group Inc. Spectrum

Rotator - Comparison Table.

For Rotators Available In Australia (Create, CDE, Emotator, Hy-Gain, Kenpro, ProSisTel & Yaesu).

Black on white version

Brand & Model No.	Wind area m2	Rotation torque kg/m	Brake torque kg/m	Vertical load kg	Extra info.... drive train / brake	Rotation range & Time	Controller display & Presets	RS232 & Control cable	Rotator voltage & Weight
KENPRO KR-400	?	4	15	200	Reduction gear & brake	360 deg 50 sec	Analog No	No 6 wire	24vAC 4.5 kg
YAESU G-450a-c	1	6	30	100	Planetary gear & brake	450 deg 63 sec	Analog No	No 5 wire	24vAC 3.2 kg
ProSisTel PST-641d	1.2	10	55	650	Direct worm drive	Adj. 500 60 sec	Digital Yes	Yes 5 wire	12vDC 4.0 kg
CREATE RC5-1	1.2	6	80	400	Worm then planetary	380 deg 75 sec	Analog yes	No 7 wire	28vAC 5.0 kg
CREATE RC5-3-p	1.2	6	90	400	Worm then planetary	380 deg 75 sec	Analog Yes	P model 7 wire	28vAC 5.0 kg
CDE/HyGain Ham-4x	1.4	9.3	58	370	Solenoid brake wedge	360 deg 60 sec	Analog No	No 8 wire	24vAC 8.6 kg
HYGAIN Ham-5-6-7x	1.4	9.3	58	370	Solenoid brake wedge	360 deg 60 sec	Digital Yes	Yes 8 wire	24vAC 8.6 kg
YAESU G-650c	2	6	50	100	Planetary gear & brake	450 deg 63 sec	Analog No	No 5 wire	24vAC 3.5 kg
YAESU G-800sa-c	2	8	40	200	Planetary gear & brake	450 deg 55 sec	Analog No	No 5 wire	20vDC 3.6 kg
YAESU G-800dxa	2	11	40	200	Planetary gear & brake	450 deg 40 sec	Analog Yes	No 6 wire	V 24vDC 6.0 kg
EMOTATOR 747-SRX	2	7	70	500	Reduction gear & brake	470 deg 35 sec	Analog No	Remote 5 wire	24v DC 4.2 kg
YAESU G-1000sa-c	2.2	8	60	200	Planetary gear & brake	450 deg 55 sec	Analog No	No 5 wire	20vDC 3.6 kg
YAESU G-1000sdx	2.2	11	60	200	Planetary gear & brake	450 deg 40 sec	Analog Yes	No 6 wire	V 24vDC 3.5 kg
Brand & Model No.	Wind area m2	Rotation torque kg/m	Brake torque kg/m	Vertical load kg	Extra info.... drive train / brake	Rotation range & Time	Controller display & Presets	RS232 & control cable	Rotator voltage & weight
CDE/HyGain T-2xx	2.2	11.7	104	650	Solenoid brake wedge	360 deg 60 sec	Analog No	No 8 wire	24vAC 9.5 kg

Useful information for those setting up antennas

Meeting Notice — page 3

The President's Report & Subscriptions— page 4

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Auckland VHF Group Inc.

Branch 66 NZART

PO Box 10138, Dominion Rd, Auckland 1446

Clubrooms: 30 Hazel Ave, Mt Roskill

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Vice President	Not filled			
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Account Reviewer	Basil Orr	ZL1TOW	021 867 367	
Webmaster	Terry Corin	ZL1BPA	027 697 4686	webmaster@aucklandvhf.org
Club Web Page:		http://aucklandvhf.org		

Club News and Net:

The combined Auckland VHF Group and Auckland Regional Branch News and Net are held on 146.625 MHz and 439.875 MHz at 8.15 pm each Sunday or after the ZL6A National Broadcast on the last Sunday of the month.

Club meetings are held at the Clubrooms at Hazel Avenue, on the second Monday of each month at 7.30 pm. For other details, listen to the News and Net each Sunday evening.

SPECTRUM is the official journal of the Auckland VHF Group Inc. Opinions expressed are those of the authors and do not necessarily reflect club points of view. The closing date for SPECTRUM articles is by the 1st of each month. Articles to be submitted to the editor Peter ZL1UKG
spectrum@aucklandvhf.org

Auckland VHF Group (Inc) Branch 66

General Meeting Notice

Monday 14th September 2020 7.30pm

The Evening's Topic:

Due to Level 2.5 restrictions on the number allowed to meet in person, we will not be having a meeting at the Clubrooms in September.

**In it's place we will meet on-line using Microsoft Teams,
7.30pm on Monday 14 September.**

**Following a short business meeting, we invite you to
contribute to a "Show and Tell"**

Give us a look at a project or activity you are working on.

You will get an email with the link to the Microsoft Teams meeting.

EVERYBODY WELCOME

We look forward to seeing you there

Coming Events:

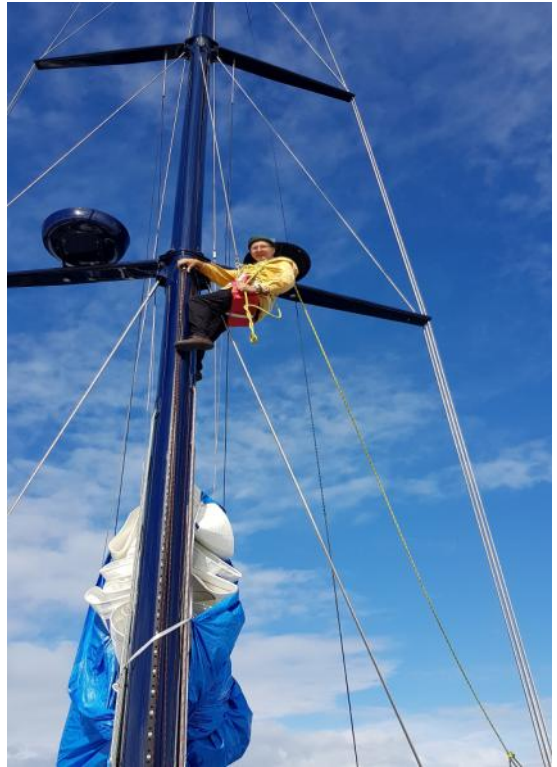
- 03 October Hamilton ARC Market Day, Gordonton Hall, (SH 1B),
Venue opens at 8 am, Buyers from 10 am
- 03/04 October Microwave Contest
- October Possible Whangarei ARC Market Day, date TBA
- 07 November Western Suburbs Market Day

Auckland VHF Group Presidents Report

September 2020

We have received a report from Peter Mancer that some Klondyke cables have again swung free of the decaying trays and are threatening to damage other cables. So we need a working bee up there on the next day that weather and people allow. Could be a week day. If you are up to a bit of climbing or ground support, please email me and I'll ring around when the weather eases. We can go sort out those cables. We might need to do a temporary job until the replacement trays are procured, which is underway.

We had our committee meeting 'on line' again last week, and it worked out pretty well. Our next General meeting (on the 14th September) will be followed one night later by a construction night. It's time I had a go at making baluns now that my VNA analyser has arrived and I have worked out how to drive it. Still have my 'L' plates on, though.



Cheers Matthew King
022 6493310

Subscription Increase for 2020/2021 Financial year

At the August committee meeting, your committee took a hard look at the Group's financial situation and concluded that with rising costs for insurance and the general overheads involved in running the club, the income from our Trading Table activity is down as is interest from the bank on our term deposit. If we continue as we are, we will have an overall operating loss for next financial year.

As a result, we have decided that a small increase in the annual subscription is necessary to help balance the books. The subscription for Full Members will increase from the current \$50.00 to \$55.00, Associate Members from the current \$44.00 to \$50.00 and Family Members from \$10 (in addition to the full member) to \$20.00.

The new subscription rates are effective from 1 October 2020.

Minutes of the August Special General Meeting of the Auckland VHF Group Inc.

Held on Monday 10 August 2020 at the clubrooms, 30 Hazel Avenue, Mt Roskill

Meeting started at: 1955 due some technical issues!

Present – 14 members as per the attendance book, ZL1XXX via Teams.

Apologies: Basil ZL1TOW, Dennis ZL1TAY, John-Henry ZL1JHW

Moved apologies be accepted: ZL1VH Seconded ZL1YOT Carried

Special General Meeting

The Special General Meeting held 10 August 2020 was to consider the following:

1. To approve the minutes of the 2018 Annual General Meeting of the Auckland VHF Group
2. To approve the minutes of the 12 November 2018 General Meeting of the Auckland VHF Group
3. To approve the 2019 Financial Report and Accounts of the Auckland VHF Group

President Matthew ZL1YOT introduced the matters to be dealt with and as there were no questions or discussion, put the following motions:

“I move that the Minutes of the 2018 Annual General Meeting of the Auckland VHF Group held on 12 November 2018, as corrected and re-published in Spectrum for July 2020 on pages 10 to 13 be approved.”

Moved ZL1YOT Seconded ZL1TCI Carried

“I move that the Minutes of the November 2018 General Meeting of the Auckland VHF Group held on 12 November 2018, as corrected and re-published in Spectrum for July 2020 on pages 8 to 10 be approved.”

Moved ZL1YOT Seconded ZL1TIA Carried

“I move that the Financial Accounts for the year ending 30 September 2019, as published on pages 6 to 10 of May 2020 Spectrum be approved.”

Moved ZL1YOT Seconded ZL1TCI Carried.

“I move that the Treasurer’s Report for 2018-2019, as published on pages 13 and 14 of July 2020 Spectrum be approved.”

Moved ZL1TUX Seconded ZL1YOT Carried.

There being no further business, the President declared the Special General Meeting closed.
SGM Meeting closed at 2000.

Minutes of the August General Meeting of the Auckland VHF Group Inc.

Held on Monday 10 August 2020 at the Clubrooms, 30 Hazel Avenue, Mt Roskill

Present – as for the Special General Meeting

Apologies – as for the Special General Meeting

Minutes of July General Meeting as published on Page 5 of August Spectrum be approved:

Moved ZL1YOT Seconded ZL1TCI Carried

Matters arising: ZL1VH gave an explanation regarding the brief nature of the minutes.

Correspondence:

June 2020 Branch Circular from NZART

ASB Bank accounts to Treasurer

North Shore Radio Club newsletter

Papakura Radio Club newsletter

Reports:

AREC – ZL1TIA spoke on the current state of the Club's AREC Group. He apologised for the lack of activity due to health issues. He advised the George ZL1TUX had accepted the position of Deputy Group Leader. Recommended that everyone interested in AREC activities should read the AREC.INFO blog. Dave will be trying to get more activity going in the coming months. He noted that AREC were involved in the search for a missing person in the Waitakere Ranges, and that person was still missing.

General Business:

1. NZART Remit. This was published on Page 30 of the March/April issue of Break-In. Secretary ZL1VH advised that according to the information supplied by NZART HQ, we had nine members present who were eligible to vote on the remit. A show of hands confirmed this.
President Matthew ZL1YOT introduced the remit and read it out to the meeting. He invited discussion on the remit.
The remit was put to the vote:
Result: 9 in favour, Against: 0, Abstaining: 0
Appointment of a Delegate to the NZART AGM on 5 September in Wellington:
Moved ZL1TIA, seconded ZL1TCI that Vaughan Henderson ZL1VH be appointed delegate for Branch 66 and granted power of discretion.
2. ZL1YOT reminded members that we were going to hold a construction night at the club rooms tomorrow night, Tuesday 11 August. Anyone wanting help with a project or assistance with anything technical was welcome to come along.

3. ZL1TIA advised that he had ordered and received a VNA from China and was looking forward to learning how to use it.
4. Used Test Equipment – ZL1VH advised that the club had received a donation of a quantity of test equipment. Most of it was not in working condition and members were welcome to make a gold coin donation for any items they wanted to take away.
5. Club Email Address – ZL1VH reported that the club had a new general email address and members had all been “joined” to this address: aucklandvhf@googlegroups.com. Our intention was to use this address to keep members informed of what was happening in the club and it was also open for members to post any questions or information which might be of interest to other members of the Group. Anyone not wanting to be a member of this email reflector should let the Secretary ZL1VH know.

The meeting closed at 2020 and was followed by the video “Black Propaganda” which looked at the WW2 campaign against the Germans, using high power radio transmissions to pass on news and information intended to mislead the German forces and general population.

The meeting concluded with supper thanks to Margaret ZL1AYV.

E&O.E. ZL1VH

Hamilton Market Day

The POSTPONED Annual Market Day will now be held on 3rd October 2020 at the Gordonton Hall, 1024 Gordonton Rd (SH 1B).

Selling starts at 10 am

Venue opens 8 am for sellers to set up.

Free entry for Buyers!

Table Space: \$20.00 per space pre-paid

\$25.00 per space on the day

Food and Refreshments Available on site.

Registration form available on website

Web site: http://www.zl1ux.org.nz/market_day.html

Email: harcmday@nzart.org.nz

Postal: PO Box 606, Waikato Mail Center, Hamilton 3240

NZART Conference Report – ZL1VH

The 2020 NZART Annual General Meeting was held at the Brentwood Hotel, Mirimar, Wellington on Saturday 5 September. The meeting got underway at 10.30am. Over 70 members were present in person and another 16 or more via Zoom.

President Mark Gooding ZL2UFI welcomed everyone and a count of Branch's represented established that 55% of the NZART membership was represented, so the AGM could proceed.

He reminded Branches that although there would be no Callbook, Branch updates were still needed and the September/October issue of Break-In would contain updated information and the repeater maps.

Highlights of the AGM:

Evan Sayer, NZART Treasurer was elected Honorary Life Member recognising 22 years of service, from 1997 when the Association was technically insolvent and turning around the Association's financial position, building up the reserves we have today.

Amateur of the Year was awarded to Douglas Birt ZL1BFS for his services as Local Government Liaison Officer – congratulations Doug.

Two Arthur (Jumbo) Godfrey ZL1HV Awards were presented: Stan White ZL2ST from Napier Branch and Ngaire Jury ZL2UJT from New Plymouth Branch.

Warren Harris ZL2AJ gave an update on council activity from the beginning of 2020:

- The new NZART Web Site rolled out in February and continues to be updated
- Phil Garside ZL2RO appointed as a new Central District Councillor
- An updated Examination Question Bank is expected to be ready by the end of this year.
- Digital Amateur Television – This is still a work in progress with on-going negotiations with RSM and the other spectrum user to get approval for further DATV testing.
- NZART has established its own Facebook page, separate from the NZART and Friends page. Search for "The NZART" on Facebook.
- NZART Historian – Craig Crawford ZL3TLB has been appointed to the newly created position
- The bandplan for the 32cm (921 to 928 MHz) band was revised to allow for repeaters in this band and the first one has been established at Colonial Knob north of Wellington City.
- The membership promotion run early in 2020 was successful gaining a number of new members
- The business plan submitted to NZ SAR for additional AREC Funding was successful.
- Subscriptions: A rebate of \$34 has been implemented for payment of the 2020/20201 subscriptions provided payment is made by 30 November to assist members adversely affected by the impact of Covid-19. Full subscriptions for the 2020/2021 year remain the same as now.
- The permit system to allow use of frequencies in the 5 MHz band has been extended and negotiations with the Ministry of Defence to secure a long-term arrangement are continuing.

- Thanks in part to the increase in AREC funding, NZART has been able to employ a new part-time person to assist Debby with an increased administrative work-load at Headquarters. Annalise Mokalei-Smith was introduced to the meeting.
- Local Government Liaison matters – the Whangarei District Council case taken to the Environmental Court with legal fees so far of \$4K from the NZART fighting fund. Noted that Douglas Birt, ZL1BFS was resigning at the end of the year and a new person needed to pick up this important role.
- Councillor Visits – please invite your local Councillor to your Branch for an update on NZART matters.
- Waitara Branch 47 placed into recess

Finance – Evan Sayer presented the financial report as published in Break-In. He noted that although the balance sheet shows an overall loss due to one-off depreciation of assets, the Association made a small profit on the year's operation of just of \$14K. Bank interest rates are well down at 2% v. 6% for the previous financial year. The cost of producing Break-In continues to be well controlled and HQ costs are contained.

Officer Reports:

Mark Gooding ZL2UFI advised that he was looking for a new Editor for Break-In. Advertising in Break-In – he would like to see more. Please let Mark know if you know of any potential advertisers.

Callbook – Peter Mulhare ZL2IK advised that although no callbook would be produced this year, updates are still needed to keep the information current.

Don Wallace ZL2TLL updated his report advising that he was still trying to get a permanent allocation at 5 MHz in the long term. Existing licence holders in “our” part of the band make this difficult and we may end up with a secondary allocation.

IARU Liaison Officer John Moriarty ZL2JPM joined the meeting via Zoom. He reported on EMC work being done in Region 1, in particular monitoring the noise floor. John now participates in Region 1 EMC committee work and is able to bring that knowledge to ZL. Of concern is the use of wireless power transfer for electric car charging. Although the frequency being used is low, harmonics go up into the amateur HF bands. He urged us to become advocates in our own cause as we can't depend on equipment manufacturer's to ensure that radiated emissions are kept to an absolute minimum.

Remit: The Remit from Christchurch Branch to amend the constitution to make specific provisions for re-allocating NZART members in the event of a Branch going into recess was passed unanimously on voices.

Conference 2021 will be held in Napier of Queens Birthday Weekend. They hope to keep costs to a similar level to the last Conference in New Plymouth.

Debby Morgan ZL2DL was awarded the stirrers award.

The AGM concluded at 12.30 and after a particularly good lunch, the AREC forum commenced at 13.30.

AREC Forum

AREC National Director Don Robertson ZL2TYR opened the AREC Forum with a presentation to Gareth Bradshaw ZL3VP. Gareth was made an honorary life member of AREC, recognising 57 years of service to AREC, and still going.

AREC now receives nearly \$400K per year in funding but in return has to deliver a professional service. The funding is being used to pay for some AREC full time and part time positions. However to deliver the standard of service expected of us, volunteers will still be needed. The funds will not be paid out automatically and a business case has to be made for all expenditure in the various areas of activity – equipment/training/recruitment/administration/publicity.

Duncan Ferner, NZSAR Secretariat Manager had met with the AREC management team on Friday and confirmed that equipment bought for SAR can be used for other purposes like Civil Defence. Don cited the roll out of the DMR network as an example of equipment bought for SAR and can also be used in other emergency communications situations.

Lindsay Ross ZL4KS, Southern Deputy National Director reported on the Volunteer Strategy being developed. This has three streams – Volunteer Recruitment, Volunteer Development and Volunteer Management. The recent work to get names and numbers of AREC members through the AREC Group Leaders has resulted in a pool of about 350 people. New membership software being implemented will ensure that this is kept up to date and will accurately reflect the different skill sets available across the membership. Looking to have better communication with Groups through the AREC Newsletter, and using Microsoft Teams to both communicate and offer help. Considering some type of AREC road show to engage with amateurs who are not currently involved.

Volunteer Development using Group Leaders and also on-line training. This will allow individual AREC members to upskill at their own pace.

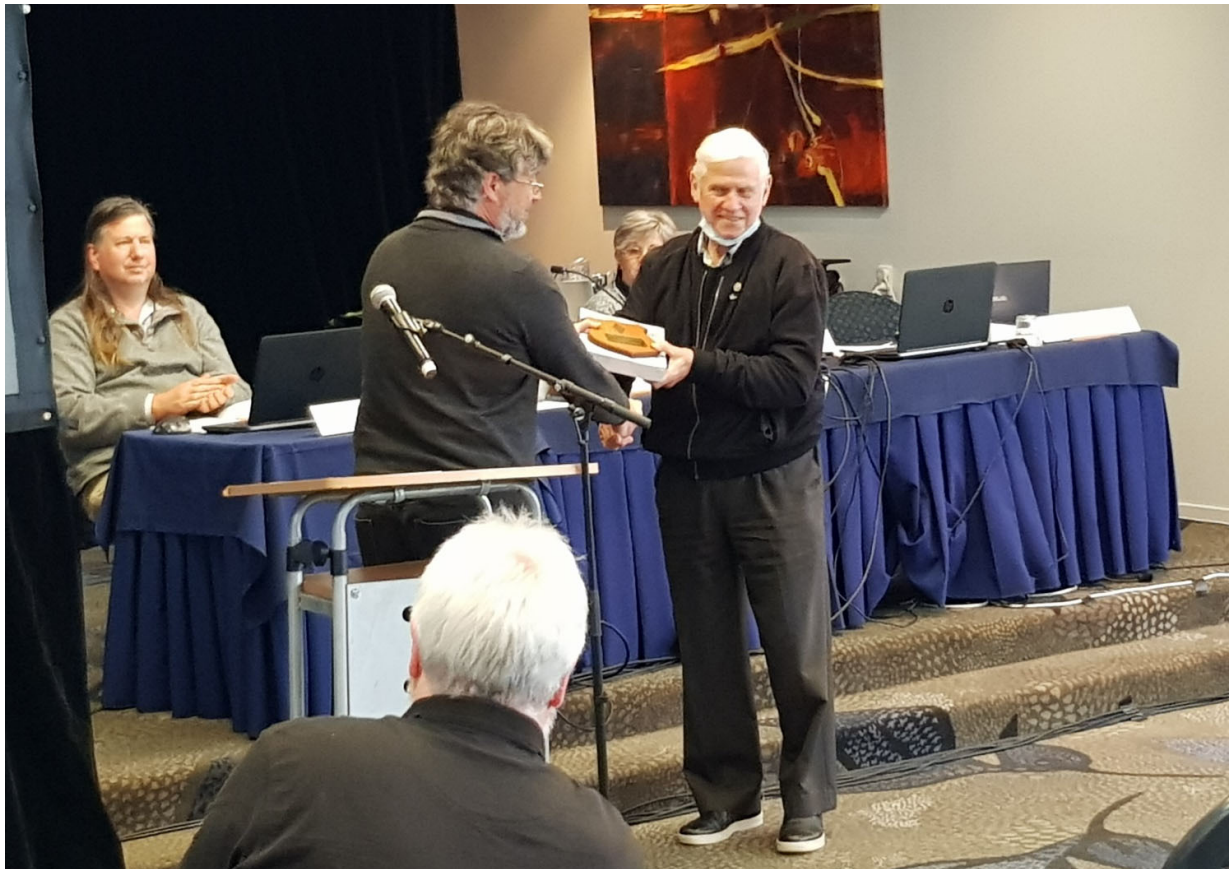
Volunteer Recruitment using Facebook and other social media. Recruitment will be targeted at those areas where the needs are. A focus on younger people and a more even ethnic mix to get away from the current male white European dominance!

Steve Davis ZL2UCX, National AREC Training Advisor, outlined the new Training Strategy. Using on-line training systems (developed in conjunction with the other SAR service partners) gives volunteers some flexibility as to how and when they undertake training. Training will be recorded and assessed, and the results used to further develop or refine the training. Pathways to different activities will be available depending on what is needed geographically – i.e. for Civil Defence or Search and Rescue. The need is for people who are “fit for purpose” with a focus on safety and competency to undertake the required tasks. Training will be offered through Group Leaders if they want to step up. Land SAR partner training, courses in management and train-the-trainer will be available, CIMS considered the minimum for core Civil Defence training. Making use of external vocational training courses is being considered where this is cost effective. Progression pathways to get volunteers upskilled and recognition will be given to prior learning but this must also be current.

Dave Wilkins ZL1MR, National AREC Health and Safety advisor spoke on the requirements and expectations for AREC volunteers. He stressed the need to identify safety issues associated with

any AREC activity or deployment: Stop/Think/Plan/Action. Wellbeing of AREC volunteers was also important and he encouraged feedback to AREC management to continuously improve our procedures – what was the issue, what did you do about it, what would you do differently. Reactive and proactive safety. We may be audited by Land SAR in a proactive manner.

IT Systems – John Murphy ZL2XJ, Wellington District Manager gave a presentation on the new software systems being implemented. . The new software will be modular and assist with all aspects of the AREC function – membership database, finance and accounting and office productivity. The new membership system will be on-line so individual members can update their information. Will be integrated with the NZART membership database. Funded staff maintaining the new systems and office software. Planned to have AREC email addresses to make it easier to communicate and also identify us to other agencies. Sub modules will assist with learning management, asset management, activity tracking and H & S tracking.



Douglas Birt ZL1BFS receiving his Amateur of the Year award from President Mark Gooding ZL2UFI. In the background, Vice-President Warren Harris ZL2AJ and just visible, Business Manager Debby Morgan ZL2DL

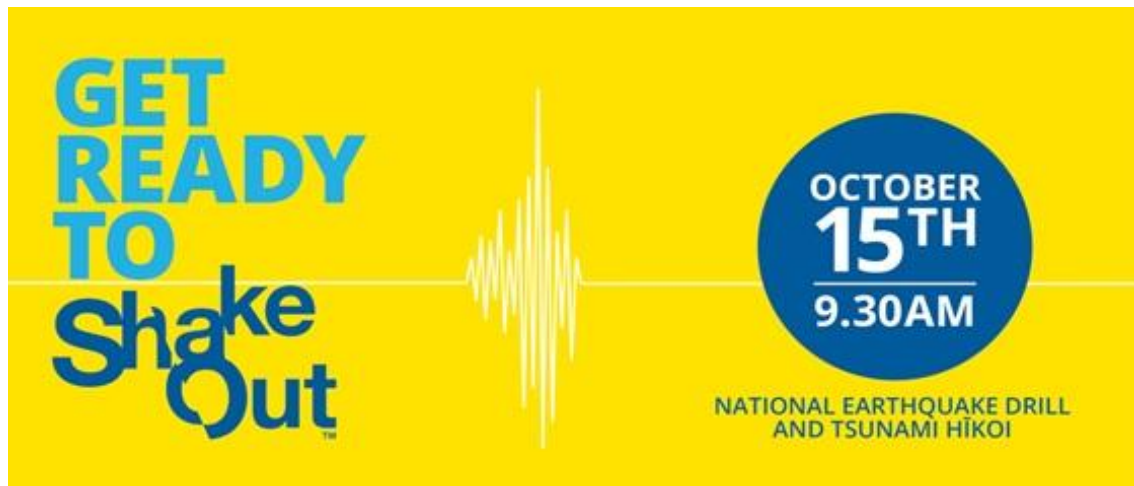
Antenna and Rotator Dealer in Australia

<http://kur02.com.au/>

This web site is operated by a company named Duoro Services. KUR02 is the Call Sign of a UHF CB Repeater located on Kurragong Heights, Northwest of Sydney in the Blue Mountains of NSW, Australia. It deals in Antennas and Rotators of many different brands with new and used items, spare parts, and specifications. It looks like they may sell on behalf as well. To help you choose a suitable rotator for your installation there is a comparison table for choosing one that meets your requirements.

Worth a look !

This web site was discovered by Vaughan ZL1VH



Sign up for New Zealand ShakeOut 2020

We now have over 400,000 people signed up for this year's New Zealand ShakeOut, our national earthquake drill and tsunami hīkoi.

On 15 October at 9:30am, New Zealand will have the opportunity to learn and practise the correct actions to take during an earthquake and tsunami by participating in ShakeOut drill day.

Wherever you are during New Zealand ShakeOut, you can take part in the drill. Just Drop, Cover and Hold for up to one minute, and if you are in a coastal area practise your tsunami hīkoi.

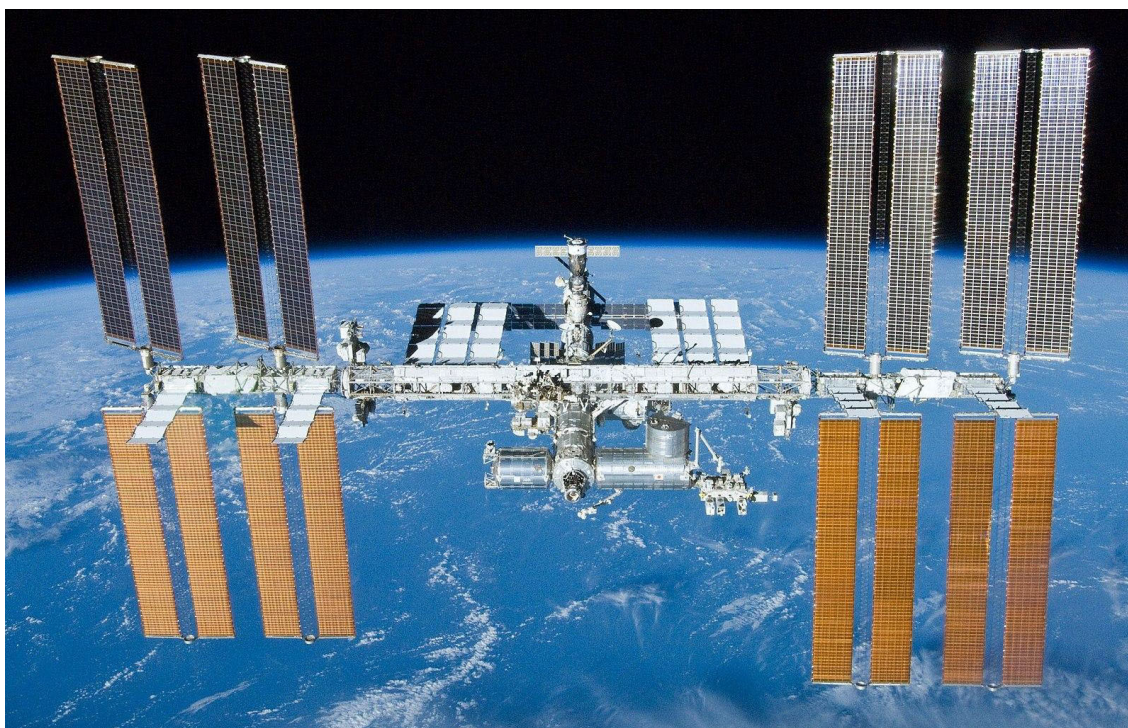
<https://getready.govt.nz/involved/shakeout/sign-up/>

Papakura Radio Club Morse Training

Morse training Each night Except Wednesday 7:30 with David Karrasch ZL1DK. Each night at 19:30 Local, David will be transmitting Morse (audio – LSB) on the Club HF frequency of 3.755 (80 Metres), Following the transmission the message as sent will be read out, and you can self-mark. The teaching Tool is the Teach4 system and can be found on the NZART website at <https://www.nzart.org.nz/learn/morse-code/> The recommended speed setting is 6 words per minute and 16-word Farnsworth setting (this will change later once we have mastered the alphabet.) This is a great chance to either learn a new skill, or brush up an old one.

Thanks to the Papakura Radio Club Newsletter for this item.

The ISS has a new Amateur Radio Station



The ARISS (Amateur Radio on the International Space Station) web site reports that the first element of their next generation radio system has been installed and is operational.

This first element, dubbed the InterOperable Radio System (IORS), was installed in the International Space Station Columbus module. The IORS replaces the Ericsson radio system and packet module that were originally certified for spaceflight on July 26, 2000.

Initial operation of the new radio system is an FM cross band repeater using an uplink frequency of 145.99 MHz with an access tone of 67 Hz and a downlink frequency of 437.800 MHz. The system was activated 01:02 UTC on September 2.

The IORS was launched from Kennedy Space Center on March 6, 2020 on board the SpaceX CRS-20 resupply mission. It consists of a special, space-modified JVC Kenwood D710GA transceiver, an ARISS developed multi-voltage power supply and interconnecting

cables. The design, development, fabrication, testing, and launch of the first IORS was an incredible five-year engineering achievement accomplished by the ARISS hardware volunteer team. It will enable new, exciting capabilities for ham radio operators, students, and the general public.

Capabilities include a higher power radio, voice repeater, digital packet radio (APRS) capabilities and a Kenwood VC-H1 slow scan television (SSTV) system.



The photo at right shows the New IORS hardware complete with its dual-band Kenwood radio, a space modified DG710GA transceiver and the ARISS developed power supply.

As the radio is a cross-band repeater, as well as APRS digpeater and SSTV system, it may not always be in cross-band repeater mode.

Check amsat.org/status for up to the minute reports on the mode of operation.

A second IORS is undergoing flight certification and will be launched later for installation in the Russian Service module. This second system will enable dual, simultaneous operations, (e.g. voice repeater and APRS packet), providing diverse opportunities for radio amateurs. It also provides on-orbit redundancy to ensure continuous operations in the event of an IORS component failure.

Follow-on next generation radio system elements include an L-band repeater uplink capability, currently in development, and a flight Raspberry-Pi, dubbed "ARISS-Pi," that is just beginning the design phase. The ARISS-Pi promises operations autonomy and enhanced SSTV operations.

ARISS is run almost entirely by volunteers, and with the help of generous contributions from ARISS sponsors and individuals. Donations to the ARISS program for next generation hardware developments, operations, education, and administration are welcome -- please go to <https://www.ariss.org/donate.html> to contribute to these efforts.

Additions to the Auckland VHF Group Website

Thanks to our Webmaster, Terry, ZL1BPA, some new headings have been added under the "Resources" tab. He is developing an area called "Equipment Noticeboard" where you will be able to list equipment for sale or wanted.

Under the same tab, keep an eye on "Technical Articles". Currently this only has one item, on new battery technology.

If you see, or come across articles you think will be of interest to our members, please let Terry know so we can look to add them to this area of our new website.



Amateur Radio Emergency Communication.

**Volunteers in radio communications.
Using our resources to help the community.**

INFORMATION

The Auckland VHF Group has an AREC Group that works closely with Auckland Council Emergency Management. They provide advice, resources and manpower to assist in times of need.

The AREC section is headed by Group Leader David Dingley ZL1TIA.

From time to time the VHF Group has training sessions and exercises. Members also assist with sports events, parades and other community activities. For further information about AREC please see the NZART web site: <http://www.nzart.org.nz/arec/>

JOIN BRANCH 66 AREC

All members of the Auckland VHF Group are encouraged to join the AREC section. Your contribution, large or small is appreciated by all involved. For further information about joining Branch 66 AREC contact the Group Leader:

David Dingley ZL1TIA

828 9394 mardayak@gmail.com

George Raffles ZL1TUX

021 735 361 zl1tux@xtra.co.nz

AREC News:

For those of you who don't get the AREC Newsletter direct, here's a link to the latest issue:
<http://arec.info/wp-content/uploads/2017/01/AREC-info-AUGUST-2020.pdf>

Coming up this month - the next Auckland Area AREC meeting will be held on
Thursday 20 August 2020 at Branch 65, Papakura Radio Club, 1 Great South Road,
Papakura @ 1930



AUCKLAND VHF GROUP (INC)

SUPPORT THE EFFORTS OF THE VHF GROUP THROUGH YOUR
SUBSCRIPTION

SUBSCRIPTIONS FOR 2020

THE SUBS GO TOWARDS;

- Maintenance and on-going improvements to beacons, repeaters and linking systems for the national system, including the Klondyke repeater site.
- Providing on-time and free access to spectrum magazine as soon as it is available.
- Providing facilities for good speakers and lecturers at our general meetings.
- Discounted access to our trading table goodies.
- Access to test equipment and technical help when needed.

FULL MEMBERSHIP **\$50.00**

ASSOCIATE MEMBERSHIP **\$44.00**

FAMILY MEMBERSHIP ADDITIONAL **\$10:00**

SEE ATTACHED MEMBERSHIP RENEWAL FORM (next page)

**REMEMBER TO KEEP US INFORMED OF YOUR EMAIL
ADDRESS!**

OTHERWISE WE CANNOT SEND YOU SPECTRUM!



Thought for the month:

"The real problem is not whether machines think but whether men do."

NAME	Mr/Mrs/Miss/Ms	Christian or given	Surname
Address		Date: (dd/mm/yy)	
		Phone: (home)	
		Phone: (work)	
		Phone (Cell)	
		Email	
Occupation:		Callsign	
NZART Member		Branch assigned	
AREC Member		Branch assigned	
Category			To pay
Membership	Full	\$55:00	\$
New/Renewal/Change	Associate	\$50:00	\$
Receipt #	Family Add	\$20:00	\$
Donations	Auckland/Klondyke		\$
	Brynderwyn		\$
	Data/D-Star		\$
	IRLP		\$
	Other		
	Beacon / Repeater / Links / Licence donations		\$
		Total	\$
Payment			
Circle one -->	Cash	Cheque	Internet deposit
Invoice/Statement re- quired	Please Advise Treasurer		
Internet	To account ASB 12-3011-0830580-00 . Account name is: Auckland VHF Group Inc. Include your Name/Callsign and Sub or RepeatDon etc in particulars field, for us to track. To sponsor a specific repeater, nominate the repeater and a backup repeater for the donation, in case the initial choice has been taken. The sponsorship is a minimum of \$50.00 which covers the licence for a year. Note: Please return the Form to the email or postal address given below to allow us to update our records. (Please Note the Account Number and email may have changed from last year) Email to: treasurer@aucklandvhf.org		
Post	The Treasurer, Auckland VHF Group Inc., PO Box 10138, Dominion Road, Auckland 1446.		
In Person	Bring this form and payment to the next club meeting, 2 nd Monday of the month or to the Committee meeting on the 4th Tuesday of the month.		

gratefully acknowledges the sponsorship of Branch 66 Beacons, Repeaters and Fixed Links license fees and the Group's repeater operations by the following radio amateurs and NZART Branches for 2020

The Auckland VHF Group, Branch 66, would like to thank all those who came forward to sponsor the licence fee for our Beacons, Repeaters or Fixed Links for the year 2020 or donate towards the Group's repeater Operations.

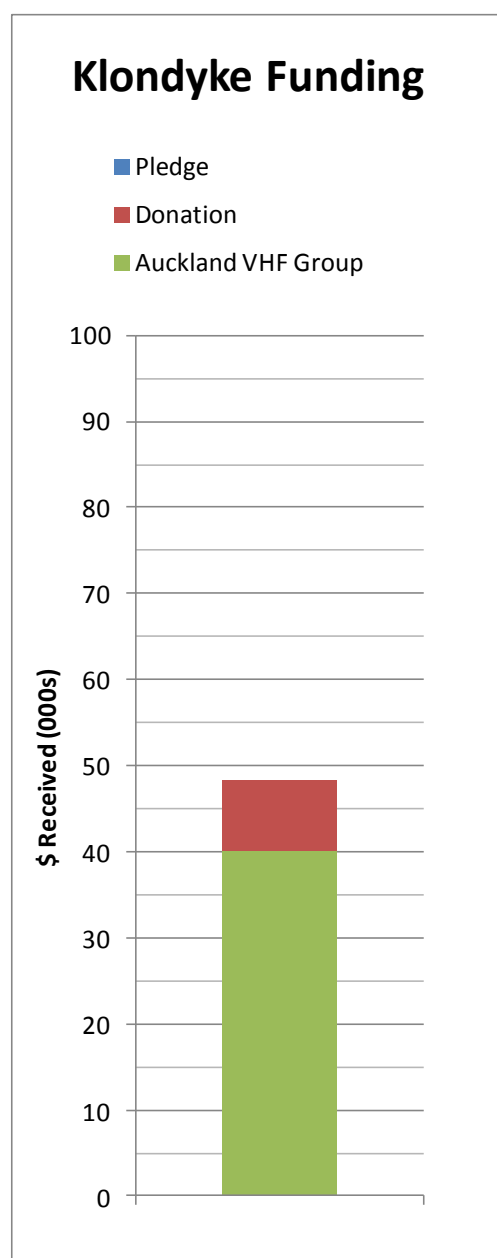
Target 100,000

Name	Donation	Pledge
Donations 2018-2019	6550.00	
Charles Graves	15.00	
Ian Ashley ZL1AOX	500.00	
Keith Dix ZL1BQE	50.00	
Margaret Dingley ZL1AYV	100.00	
David Dingley ZL1TIA	100.00	
Jenny Dingley ZL1TDB	100.00	
Russell King ZL1WITT	20.00	
Basil Orr	500.00	
Raffle — Meter	399.00	

Tower 63,245.00 Other 27,268.25
GST 9,486.75

Total 72,731.75 Total 27,268.25

Auckland VHF Group 40,000.00 40.00



Total	8274.00	-
Percent	8.274	0.00

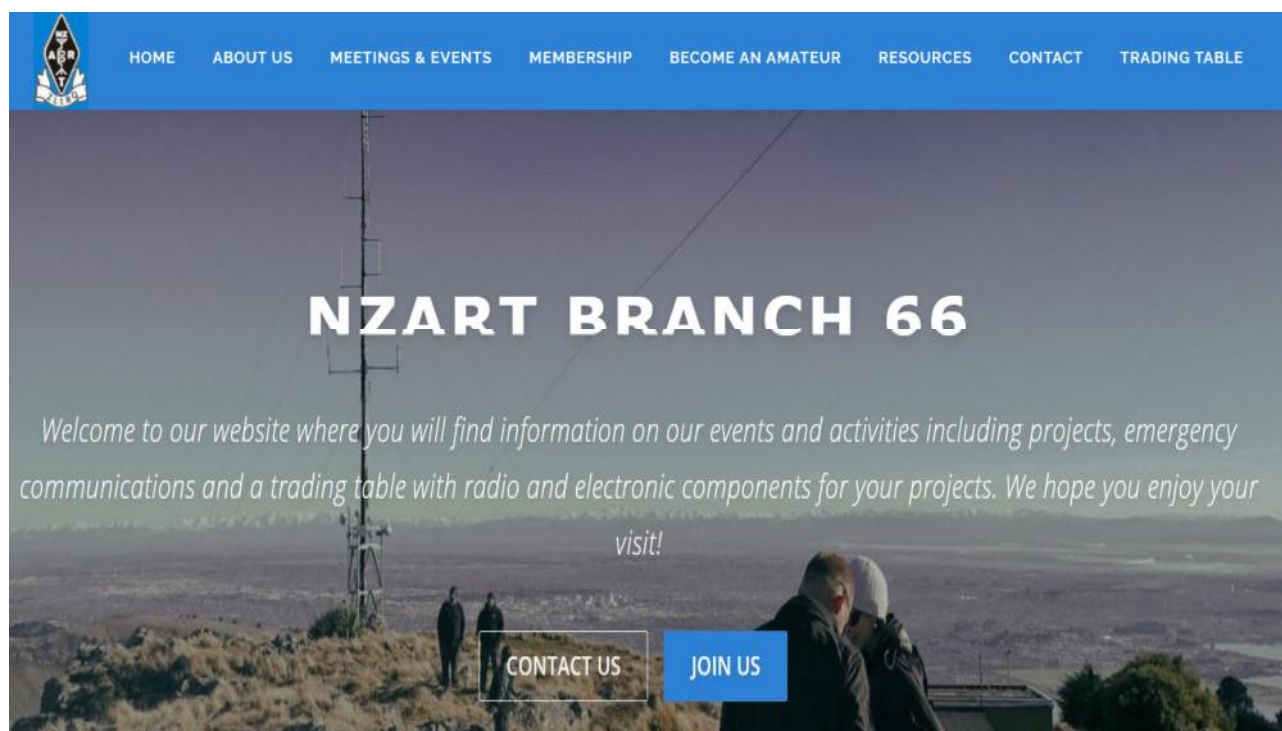
TRADING TABLE

Currently our Trading Table is only open on meeting nights but wait, there's more!

Trading Table is now on line. Navigate your way to our new look web site at <https://aucklandvhf.org/> and click on TRADING TABLE (the most right hand tab).

Wait a few seconds and the on-line version of the Trading Table will pop up. From here you can browse the various sections, dig deeper to look at what's available and even place your order online.

If you prefer to just look at the Trading Table List, just hover your mouse pointer over the TRADING TABLE and a pull down list will appear. From this you can access the full trading Table list and download it in .PDF form.



Recent Additions to our Trading Table Stock

Electrolytic Capacitors SMD (Packed in bags of 10 for 50c):
 10uF 16V electrolytic 47uF 16V electrolytic 100uF 16V electrolytic

Resistors:
 50 Ohm 0.4W +/-1% tolerance. 10 for 50c
 0.25 Ohm 5W wire wound
 0.27 Ohm 3W Wire wound vertical pcb mount

Siemens Gas Surge Voltage Protection Tubes:
 SVP Tube type B13-A230. 230V D.C. minimum strike voltage. \$1.00 for 10
 2-electrode type with wire leads, pre-bent for 10mm hole spacing.

ETAL P1200 600:600 Ohm line matching transformer \$3.00 each

Quartz Crystal: 6.000 MHz HC49SMD package marked CQ6.0000 \$1.00 each

BNC plugs 50 ohm R/Angle for RG58 coax (solder/clamp type) \$2.50 each

Relays:
 12V coil, DPDT 1A non-latching (EB2-12NU) SMD package \$2.00 each
 12V coil, DPDT 1A 2-coil latching (EB2-12TNU) SMD package \$2.00 each

LED Holder panel mount 5mm Kingbright nylon in bags of 50 \$3.00 per bag

Lacing Twine black plastic, in 10m rolls. \$1.00 each

Ceramic feed-thru insulators, 500V rating, solder in. 50c bag of 10

Semiconductors:

RURP30120	1200V 30A ultrafast switching diode	\$1.00 each
1SS55	Silicon switching diode. 70V 100mA DO-35	10/\$1.00
2N5777	NPN Light detector, Photo-darlington 45V TO-92	\$0.50 each
2N6027	Programmable Unijunction Transistor 40V 300mW	\$0.10 each
2N6122	NPN TO220 60V 4A 40W GP amplifier	\$0.50 each
2N6292	NPN TO220 70V 40W GP amplifier	\$0.50 each
2N6609	PNP TO3 140V 16A 150W audio/driver	\$1.00 each
BUK457-500B	Power MOSFET 500V 9A 150W TO-220	\$2.00 each
SGP15N60	NPN IGBT 15A 600V fast switch TO-220	\$1.00 each
SGP20N60	NPN IGBT 20A 600V fast switch TO-220	\$1.00 each
UDN2965W-2	Dual high power stepper motor driver. 20 to 50V out at 4A SIP package.	\$1.00 each

LM3909N	LED driver/flasher. 8-pin plastic DIL package.	\$0.5each
LM3911N	Temperature Controller IC. 8-pin plastic DIL package.	\$10 .00 each
LM3914N	LED Bar-graph driver. 18-pin DIP plastic package.	\$5.00 each
PIC16C54B	8-Bit CMOS Microcontroller. 18 pin SOIC SMD package Limited quantity	\$2.00 each