

**The Official Newsletter of the
Auckland VHF Group Inc.
Spectrum**



This photo from 2006 shows VHF Group volunteers doing maintenance at Klondyke.
It is harder to get the same people 15 years on to do it all.
Contractors need to be considered to help preserve the tower.

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Auckland VHF Group Inc.

Branch 66 NZART

PO Box 10138, Dominion Rd, Auckland 1446
 Clubrooms: 30 Hazel Ave, Mt Roskill

Office	Name	Call sign	Work / Mobile	E-mail
President	Matthew King	ZL1YOT	022 649 3310	president@aucklandvhf.org
Vice President	Not filled			
Secretary (Acting)	Vaughan Henderson	ZL1VH	021 844 804	secretary@aucklandvhf.org
Treasurer	George Raffles	ZL1TUX	021 735 361	treasurer@aucklandvhf.org
Committee	Brendon Reid	ZL1XXX	021 970 785	brendon@aa.net.nz
	Greg Storz	ZL1GSG	09 849 2878	greg.storz@orcon.net.nz
	Darryl Grange	ZL1TCI	021 123 7733	dgrange@ecohousing.co.nz
	Vaughan Henderson	ZL1VH	021 844 804	zl1vh1@gmail.com
AREC Group Leader	Dave Dingley	ZL1TIA	09 828 9394	mardayak@gmail.com
Deputy Group Leader	George Raffles	ZL1TUX	021 735 361	zl1tux@xtra.co.nz
ZL1BQ Trustee	Matthew King	ZL1YOT	022 649 3310	zl1bq@aucklandvhf.org
Head Repeater Trustee	Vaughan Henderson	ZL1VH	021 844 804	repeatertrustee@aucklandvhf.org
Klondyke Manager	Vaughan Henderson	ZL1VH	021 844 804	6625@aucklandvhf.org
670 Manager	Vaughan Henderson	ZL1VH	021 844 804	670@aucklandvhf.org
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850 Manager	Vaughan Henderson	ZL1VH	021 844 804	850@aucklandvhf.org
Spectrum Editor	Peter Loveridge	ZL1UKG	09 427 6362	spectrum@aucklandvhf.org
Trading Table	Vaughan Henderson	ZL1VH	021 844 804	tradingtable@aucklandvhf.org
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 8th February 2021 7.30pm

At the Hazel Avenue Club Rooms
(Located on the left at the end of Hazel Avenue)

The guest speaker is Andy Brill ZL1COP / ZK6EXB, AREC Regional Manager (North). Andy will bring us up-to-date on the new developments within AREC, Auckland Region changes and other matters of interest happening nationally.

There will be time after Andy's presentation for questions and the meeting will conclude with our usual supper and time to chat over a cup of tea or coffee.

If you are unable to attend in person, we will have the meeting live via Microsoft Teams. Goto the Group's website at <https://aucklandvhf.org/> and navigate your way to "Meetings and Events" where you will find the link to join us on Teams.

Coming Events:

- 06-07 February DX Weekend Contest from 5 to 11 pm Saturday and 7 am to 1 pm Sunday
- 20-21 February North Shore ARC, Branch 29 Ham Cram course
- 20 March Te Puke ARC Market Day from 8:30 am for Vendors and 10:00 am for Buyers. 4 Old Coach Road, Paengaraoa.
- 15 May Radio Electronics Group Market Day from 8:30 am for Vendors and 10 am for Buyers. 211 Peacocks Road, Glenfield, Hamilton.

Auckland VHF Group Presidents Report February 2021

And away we go again. What I'd most like to achieve this year is sorting out Klondyke funding, recruiting a bunch of new younger members, getting AREC participation activated, and construction nights going. The AREC will be getting moving this coming meeting. We are also considering merging projects nights into a series of videos to put on Youtube. Some basic electronic ones then simple projects.

I gave the AREC exercise a go and successfully passed some messages from a ridge at Wainui. The goat track up there was interesting, and the magnificent view from the top took in from Great Barrier to Klondyke! I used a 2m yagi tied to a bamboo pole tied to a fence post, which worked well, although I couldn't hit the Papakura STSP repeater.

Cheers Matthew King
 022 6493310



The December General Meeting of the Auckland VHF Group Inc.

Held on Monday 14 December 2020 at the Clubrooms, 30 Hazel Avenue, Mt Roskill

This was the Christmas Social of the Club
and no business took place so no Minutes were recorded.

The North Shore Radio Club, Branch 29 will be holding another weekend "Ham Cram" course
over the weekend of February 20 and 21.

Anyone interested in attending, please contact Vaughan ZL1VH email training@nsrc.nz

The Te Puke Radio Club, Branch 53 Market Day will be held at the Paengaroa Community Hall,
4 Old Coach Road, Paengaroa (GPS Coordinates: 37.49S 176.24E) on Saturday 20 March
from 6:30 am for Vendors and 10.00 am for Buyers, Hot breakfast from 7:30 am.

There is Overnight Parking for Motor Homes. For further information & Table Bookings,
Contact Syd Rowe ZL1WR at (07) 533-1029 or 0272488664, Email sydrowe@xtra.co.nz
Postal Address: 223 State Highway 33, RD 9, Te Puke 3189

The Radio Electronics Group Market Day will be held at the Glenfield Club,
211 Peacocks Road, Glenfield, Hamilton on Saturday 15 May
from 8:30 am for Vendors and 10 am for Buyers.

Tables \$20. Inquiries to ZL1REGSALE@gmail.com or ZL1PO 0212045990

50 Years Ago in Spectrum

The first issue of Spectrum for 1971 was a combined January – February edition. At the AGM at the end of 1970, Doug James ZL1TFY was elected President, Dave Johnston ZL1AMN was Vice-President and immediate past President was Morris Lister ZL1TAQ. Club Secretary was John Watson, ZL1TIQ, Treasurer Elva Henry ZL1BIZ and the committee comprised Bruce Harding ZL1TDR, Graham Bender ZL1AHQ, Ian Sterling ZL1AGU and Ken Cardy ZL1AAB.

In the club notices, members were advised that the March meeting would be held as usual on the 2nd Monday in the month at the Auckland Technical Institute. A Junk Sale was planned for March 20th at the Modeller's Clubrooms, Bremner Avenue, Mt. Roskill. A picnic had been organised by the Auckland Co-ordinating Committee, to be held on February 21st at Wenderholm Reserve. The Papakura Radio Club were holding a Junk Sale on April the 7th at the Papakura Radio Club Rooms. Advance notice of the V.H.F. Convention being held in Wellington over Easter 1971.

Stickybeak which used to be a regular contribution to Spectrum noted that VHF/UHF DX had been missing. Regular monitoring of the 2m band had not found any DX signals. ZL2's ANC, TE and WU were regularly heard but little activity from further afield like the Bay of Plenty. RTTY operation was on the up with ZL1AHO playing a major role with ZL1BDO the latest to come on the air. Several QSO's were noted between ZL1BDO and ZL1TFE. The FM "bug" seemed to be catching with ZL1TFE and ZL1TGQ both having gone over to FM.

Colin ZL4TBS reported in from Dunedin and in addition to the usual local stations, there had been several fine openings to the North and south. DX reports from ZL2 and VHF News from Bob VK4ZRG which mainly focused on 6m band openings which included some to ZL2. The report noted that the ZL1 TV Channel 1 was quite prevalent early in the year with strong signals being heard on many days.

This issue of Spectrum contained a report of a meeting of the N.Z. VHF Co-ordination Committee: Participating were ZL4PG, ZL2CD, ZL2AZJ, ZL1ACL, ZL1AZZ, ZL1TAT, ZL1AMN, ZL1BKL and ZL1TDR. A previous meeting held towards the end of 1970 had drawn up a list of suggested frequencies in the 2m and 70cm bands – 144-144.1 MHz for experimental and DX work, 144.6 to 144.7 MHz for AM repeater input channels, 2m beacons (one for each district) on 145.1, 145.2, 145.3 and 145.4 MHz. 145.6 to 145.7MHz was allocated for AM repeater outputs. 146.00 MHz was designated as the National FM simplex channel with 145.9 MHz for an FM repeater input frequency and 146.4 MHz as the FM repeater output (500 kHz offset!). 147.5 MHz was allocated as the National Civil Defence channel and on 70cm, beacon frequencies of 431.9, 431.8, 431.7 and 431.6 MHz were allocated for each district. At the meeting, no agreement could be reached on the frequencies for additional AM and FM repeaters and a proposal from June 1970 had four new FM repeater channels A, B, C, and D having their input frequencies on the output of the AM repeater channels. The meeting noted that Whangarei had applied for a licence for an FM repeater operating on Channel B (145.65 MHz in and 146.35 MHz out) [the famous 700 kHz offset] and that they had purchased a large number of crystals which could not be wasted!

On the technical side, Ian ZL1TAT supplied details and the circuit diagram of a transistor checker capable of testing NPN and PNP transistors capable of testing for short circuits between emitter and collector, collector – emitter leakage and gain up to 500 in two ranges. Also, in the same issue, a combined V.O.X and Speech Compressor by Ian ZL1TAT based around the National Semiconductor LM370 agc/squelch I.C.



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 z11tux@xtra.co.nz

AREC News:



AUCKLAND VHF GROUP (INC)

SUPPORT THE EFFORTS OF THE VHF GROUP THROUGH YOUR
SUBSCRIPTION

SUBSCRIPTIONS FOR 2021

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 **\$55.00**

ASSOCIATE MEMBERSHIP **\$50.00**

FAMILY MEMBERSHIP ADDITIONAL **\$20:00**

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 most difficult thing is the decision to act. The rest is merely tenacity.”



AUCKLAND VHF GROUP INC.

P O Box 10138, Dominion Rd, Auckland 1446,
 30 Hazel Avenue, Mount Roskill, Auckland,
 Web: <http://www.aucklandvhf.org>
 NEW ZEALAND



NAME				
Mr/Mrs/ Miss/Ms	Christian or given		Surname	
Address				Date:(dd/mm/yy)
				Phone: (home)
				Phone: (work)
Email				Phone (Cell)
Occupation:				Callsign:
NZART Member	Yes/No		Branch assigned	
AREC Member	Yes/No		Branch assigned	
Family Member 1	(Name)	(Call)	(Email)	(Mobile #)
Family Member 2	(Name)	(Call)	(Email)	(Mobile #)
Family Member 3	(Name)	(Call)	(Email)	(Mobile #)
Category				To pay
Membership	Full		\$55.00	\$
New/Renewal/Change	Associate		\$50.00	\$
Receipt #	Family (per member)		\$20.00	\$
Donations	Klondyke Refurbishment			\$
Auckland/Brynderwyn/ Klondyke/670/690	Repeater Maintenance			\$
				Data/D-Star
				Beacon/Repeater/Links/ Licences
				Other
				Total
Payment (Mark One →) Cash <input type="checkbox"/> Cheque <input type="checkbox"/> Internet deposit <input type="checkbox"/>				
Invoice/Statement required <i>Please Advise Treasurer</i>				
Internet	To account ASB 12-3011-0830580-00. Account name is: Auckland VHF Group Inc. Include your Name/Callsign for us to track. Note: this form needs to be sent to us to update records. 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 the 4 th Tuesday of the month.			
Privacy	Unsubscribe from Email Notifications <input type="checkbox"/>		Do Not disclose contact Information <input type="checkbox"/>	

The Auckland VHF Group Inc Branch 66 NZART

gratefully acknowledges the sponsorship of Branch 66 Beacons, Repeaters and Fixed Links licence fees and the Group's repeater operations by the following radio amateurs and NZART Branches for 2021

<u>Repeater frequency</u> and name	Repeater location	Sponsorship advised for 2020	Amount paid
53.725 Repeater	Klondyke Road		\$
144.253 Beacon	Nihotupu	Stability testing	
145.625 Data Rptr	Klondyke Road	Not operating	
145.650 D-Star repeater	Klondyke Road		\$
146.625 Repeater	Klondyke Road	David Wilkins	\$50
146.700 Repeater	Ruaotuhenua	Dennis Thornton	\$50
146.900 Repeater	Mt Puketutu Radio	David Wilkins	\$50
432.253 Beacon	Nihotupu	Stability testing	
438.175 D-Star repeater	Klondyke Road		\$
438.500 Repeater	North Head	Not operating	
439.850 Link Tx to Kaimai	Klondyke Road	George Marr	\$50
439.875 Ak Nat Sys Rptr	Klondyke Road		\$
439.900 Link Tx to Egmont	Klondyke Road	Kylie Peterson	\$50
439.950 Link Tx to Brynderwyn	Klondyke Road		\$
1291.900 Repeater	217 Glenfield Rd		\$
		Total Sponsorship	\$250
NZART Inc: Branch/Personal donations			
Papakura Radio Club		\$500	
Auckland Branch		\$100	
Manukau Radio Club		\$100	
Donations		\$950	

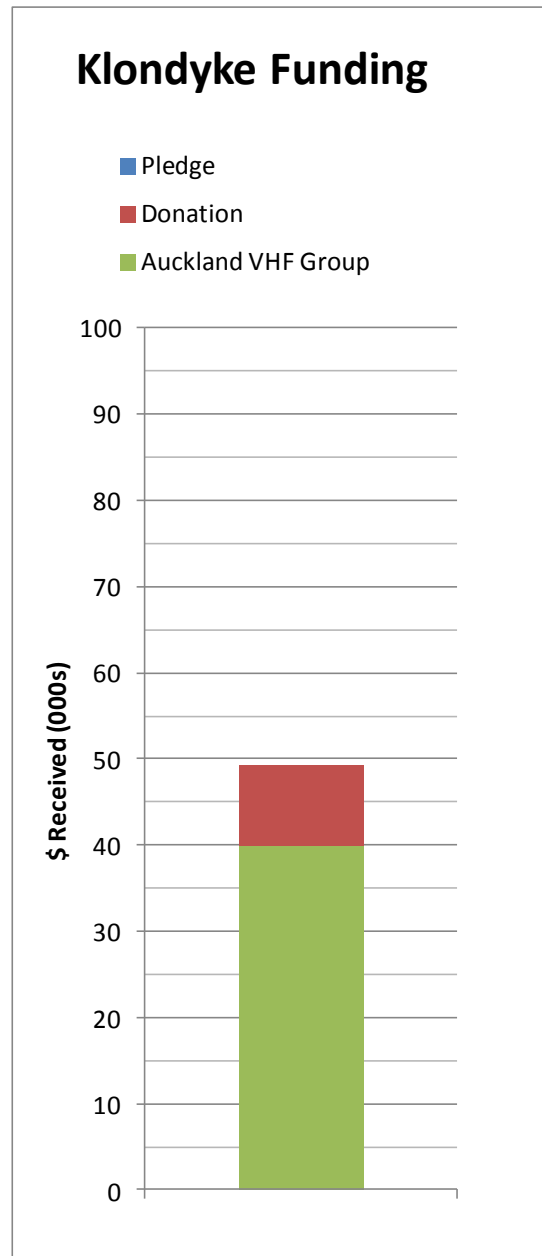
Current as at 30/01/2021

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 2021 or donate towards the Group's repeater Operations.

**Klondyke Tower
Donations towards Maintenance**

Target 100,000

Name	Donation	Pledge	Tower	63,245.00	Other	27,268.25
			GST	9,486.75		
Donations 2018 - 2020	8444.00					
			Total	72,731.75	Total	27,268.25
Margaret Dingley ZL1AYV	100.00					
David Dingley ZL1TIA	100.00		Auckland VHF Group	40,000.00	40.00	
Jennie Dingley, ZL1TDB	100.00					
Yuri Muzyka ZL1GYM	50.00					
Martyn Seay ZL3CK	500.00					



Total	9294.00	-
Percent	9.29	0.00

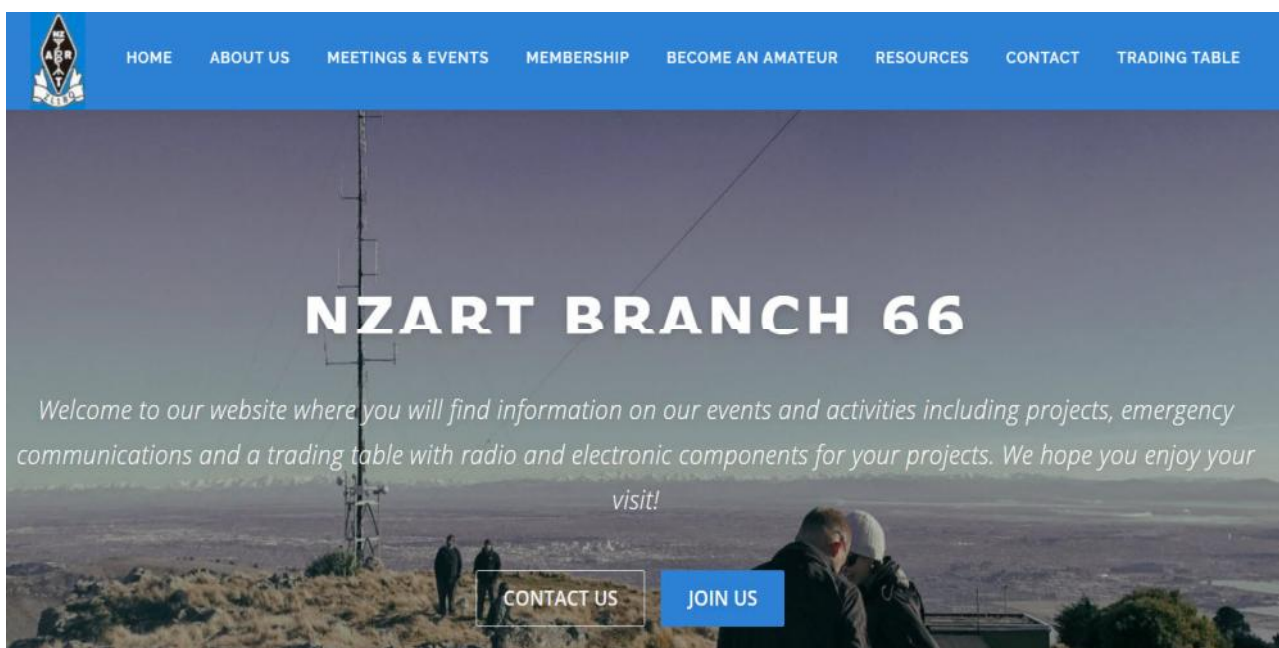
TRADING TABLE

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