

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



6 Members arrived at the Community Shed for a guided tour,  
returning to the VHF Group for supper and discussion.

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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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	Mark Howie	ZL1UMK	022 047 3240	mark@aucklandvhf.org
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Head Repeater Trustee	Vaughan Henderson	ZL1VH	021 844 804	repeatertrustee@aucklandvhf.org
Klondyke Manager	Vaughan Henderson	ZL1VH	021 844 804	6625@aucklandvhf.org
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ZL1VHD Dstar gateway administrator:	Laurie	ZL1ICU	634 5130 0274 817463	perma@xtra.co.nz
ZL1VHD Dstar gateway registration URL :	<a href="http://zl1vhd.dstar.org.nz">http://zl1vhd.dstar.org.nz</a>			

### 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**

## **Notice of General Meeting**

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

**The Auckland VHF Group Meeting will be held on Monday 13 June  
at the Clubrooms, 30 Hazel Avenue at 7:30 pm**

**Greg Storz ZL1GSG will give a presentation entitled  
“Practical RF Applications of the Nano VNA”**

All welcome.

In keeping with current Covid restrictions, masks are to be worn.

### **Coming Events:**

- Sat 27 July Whangarei Amateur Radio Club, Heritage Park, Whangarei  
Sellers from 9 am, Buyers from 10 am. The VHF Group will  
have a selection from their stock. Refreshments are  
available at the venue.

## Auckland VHF Group President's Column

### VHF Group Presidents Report June 2022

The social repercussions of Covid are interesting. Many people initially reduced their socialising activities, but felt a bit strange doing so. Then a lot of them seem to have just got tired of the whole issue and reverted to their previous activities, but with a little nervousness about getting infected. When that seemed to be OK they carried on with life as it used to be.



Here at the radio club many of us avoided the face to face meetings, and joined in on line. Myself, even though I have not "connected" with everyone, I missed the gatherings. It reminds me that we have evolved from tribal groups, and are most comfortable in that state.

Branch 29 ran another Ham Cram course recently. My partner Janice attended, along with two of her friends. So we spent the two days before it getting familiar with basic electronics and RF concepts. I haven't taught for about thirty years, so it was hard work assessing how much they were taking on board, and how often they needed to have a break so they didn't overdose. Anyway, Janice passed (ZL1JMP) and the other two will re-sit in a few weeks. One of them lives a reclusive life in the bush with no phone line or cellphone coverage, and I'm keen for her to have a radio available. She is facing north, toward the Rodney repeaters. My handheld can make clear contacts on Rodney 730 operated by the Wellsford Club.

Anyway, down to business. You are cordially invited to join us at the clubrooms on 18 June at 10 am, for a working bee. There are curtains to replace, a bit of paint to throw around, and some spouting to repair. A high step ladder (or small extension ladder) would be useful for the latter.

AREC: I have talked with Vaughan and we feel its a good idea for our Bch 66 members to tag along with Bch 29 AREC when they have their training events. This avoids duplication of training activities. So I will be in touch when that's organised.

This weekend (11 & 12 June) is the AREC training at the Papakura branch. It is primarily for group leaders, but anyone who is interested is welcome. I'm expecting to be enlightened on our policy for reacting to emergencies, and to maybe receive the training syllabus.

See you Monday

Cheers, Matthew King      022 6493310

## **Minutes of the May General Meeting of the Auckland VHF Group Inc., held on Monday 09 May at the Central Community Shed, Morningside**

**Present:** ZL1TCI, ZL1TUX, ZL1TOW, and 3 others

### **May General Meeting Report**

The May General Meeting of the Group was re-arranged at short notice when our scheduled guest speaker advised that he would not be able to attend.

As a substitute activity, Matthew ZL1YOT arranged for a visit to the Auckland Central Men's Shed, located in Gribblehurst Park, Sandringham. Thanks to Men's Shed member Brent Russell, we were able to have a look through the shed and its facilities.

The building was originally clubrooms for the Edendale Bowling Club with the Eden Rugby Club occupying the upper floor level. The Eden Rugby Club is still going strong, but the Edendale Bowling Club closed some years ago, and a volunteer community group took the opportunity to occupy the ground floor space. Gribblehurst Park got its name from the land donated by two of the early settler families: the Gribble and Hurst families.

The Shed is primarily a community space where people socialize and work cooperatively sharing a common interest in woodwork, engineering, or electronics. Members work on their own tasks and also help run the Shed.

We were shown some of the community projects built in the very comprehensive woodworking area. A recent community project was making a large number of rat trap tunnels for "Urban Ark" – a group working in the inner west areas of the city to eliminate pest mammals – rats and possums as well as pest plants.

The shed has a smaller space devoted to metalwork and engineering which has most of the machinery and tool needed for metalwork projects. Another room off one end of the woodworking shop is reserved for "electronics" although our guide Brent admitted that part of the Shed's operation was currently not very active.

A small group of VHF Group members turned up at the 7pm arrival time and enjoyed a good discussion with Brent about the shed and its activities. We were most grateful to Brent for making the time available as our visit was outside their normal opening hours.

If you would like to learn more about the Auckland Central Men's Shed, the opening hours are Mondays and Wednesdays from 10am to 3pm, Wednesday evenings from 6.30pm to 9pm and Saturday's (out of Rugby season) or Sundays during the Rugby season from 10am to 3pm. The building is located on Cabbage Swamp Drive and the shed has its own web site with more contact information: <https://www.aucklandcentralshed.org.nz/>

Following the visit to the Men's Shed, a small number of members went back to the clubrooms for a cup of tea and coffee and the usual informal chat. No formal meeting was held due to a Quorum not being reached.

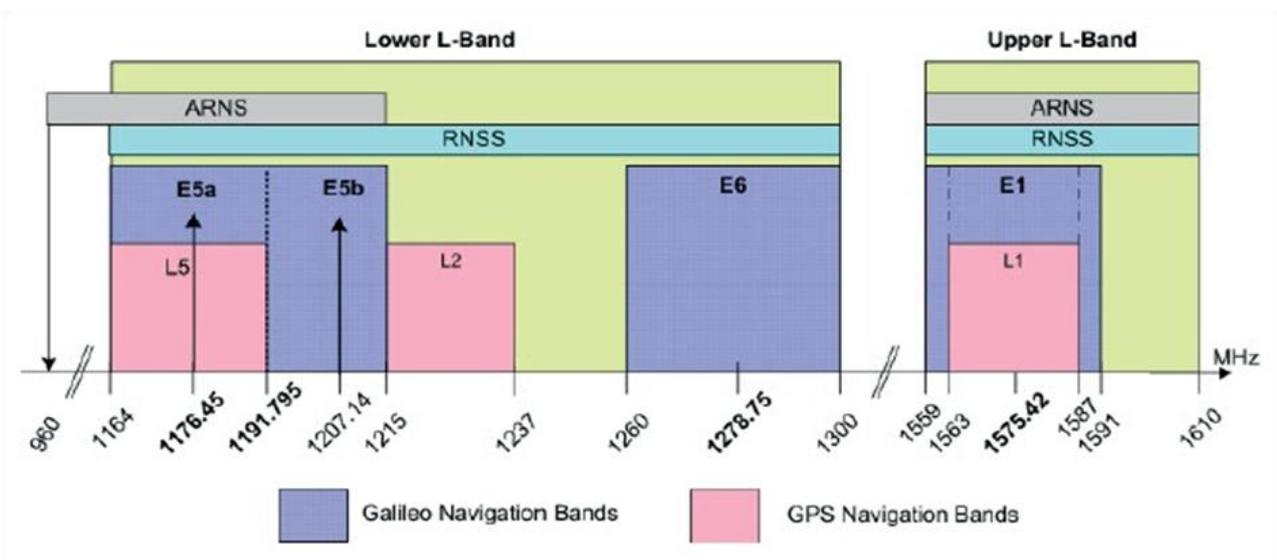
**Reports:** There were no reports.

Meeting Closed after 8:30 pm

### Threat to the Amateur 23cm Band

The Global Navigation Satellite System (GNSS) which includes the familiar GPS satellite constellation, also includes systems from other countries: Galileo from the European community, Glonass from Russia and Beidou from China. At WRC-2000, the GNSS got 1260-1300 MHz as a primary allocation. At the time, it was expected that amateur radio transmissions in the 23cm band would be unlikely to cause interference to GNSS and vice-versa – the spread spectrum downlink signals were not expected to cause interference to ground based receivers as they are not easily detected with typical amateur narrow band equipment. If the receive antenna is pointing in a suitable direction and had sufficient gain, an increase in the noise floor may become evident, but realistically this is only likely to affect satellite or EME operators.

The problem which is receiving Global attention revolves around the Galileo GPS receivers. It seems generally accepted that the technical specification for these receivers is poorly specified and herein lies the main problem facing our 23cm amateur allocation. Any terrestrial signal that is sufficiently strong, or close enough in frequency can cause corruption of the received Galileo signal. Rather than try to fix the actual problem of poorly engineered receivers, the EU have instead tried to prevent or minimise the interference by proposing to the next World Radio Conference (WRC-23) that Galileo should get exclusive use of the band 1260 to 1300 MHz which if successful, would mean severely restricting amateur radio use of the 23cm band (1240 – 1300 MHz) in New Zealand. In particular the SSB calling frequency of 1296.2 MHz, FM calling frequency of 1296.5 MHz and the beacon band 1296.25-1296.30 MHz would be immediately affected. One UK based commentator calls the EU proposal “flawed thinking, as there are many terrestrial links and radars operating in L-Band, and it also doesn't give much confidence in Galileo in terms of overall reliability, especially for safety of life type applications such as aircraft navigation or autonomous road vehicles, which was one of the main arguments for the development of the system.



Galileo has several downlink bands. Unlike GPS, Galileo sub-band E6 encompasses 23cm.

It has apparently proven impossible to make cost-effective small filters to remove the impact of existing spectrum users from the "Lower L-Band" thus making Galileo practically unworkable. With an orbit of ~20000km and moderate TX power from the satellites, even a small signal has the potential to block the E6 sub-band for Galileo. 11W ERP has been reported as catastrophic to navigation.

With 23 satellites already in orbit and operational plus another eight ready to go, the EU will not want its flagship project derailed and we can expect to see some extensive lobbying by the EU to persuade each ITU member country to vote to change the spectrum allocation giving Galileo global ex exclusive use of 1260-1300MHz. As each member country has one vote, the result is pretty much a certainty. Every member country will then have to abide by the ITU directive and bye-bye 23cm as we know it!

Compiled by ZL1VH from a variety of sources:

Southgate Amateur Radio News,  
IARU Region 3 News and AMSAT-UK.

## VHF Group Subscriptions are now due for 2022-2023 year.

Subscriptions are now being accepted for the 2022-2023 year, 1 July 2022 to 30 June 2023.

This coincides with the change of the financial year to ending 30 June 2022. The change is intended to give sufficient time to get the accounts sorted and reviewed before the AGM in November 2022. Invoices will be sent out in May to all members who have not renewed by that time.

### Note on Subscriptions

- a. There is an increase for the 2022-2023 subscription year.
- b. All yearly subscriptions terminate on 30<sup>th</sup> June each year. To keep your membership active, we need to receive your subscription renewal by that date.

Subscription Type	Subscription Price
Ordinary Members (Full)	\$60.00
Associate Members	\$55.00
Family Members	\$25.00

For Family Members, one person needs to be an Ordinary Member, and then each additional family person then becomes a family member.

## 50th Anniversary of opening of clubrooms

Location: Hazel Ave Clubrooms

When: Saturday, 29 October 2022 2:00 pm – 4:00 pm

Description: Join us for finger food and refreshments to celebrate the 50th Anniversary of the opening of the Hazel Ave Clubrooms

View a demonstration of the National System Radio Repeater Network.

See the latest SDR Radio in Operation Watch a Microwave Contest Station in action.

Meet some of the characters who have made the Auckland VHF Club what it is today.



## 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 Matthew King ZL1YOT.

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:

Matthew King ZL1YOT                      022-6493310                      mattking@gmail.com  
The Deputy Leader position is currently vacant

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### **AREC News:**

#### **AREC Auckland District Training Weekend June 11,12**

The training weekend is mainly designed for District Managers, Group leaders and their deputies, but is open to any AREC members who wish to attend.

It will run from Saturday morning until Sunday afternoon and will cover a range of topics relating to the future direction of AREC, use of the new IT systems including Training management system, Membership system, Microsoft 365 productivity tools, (Teams, Sharepoint, AREC email accounts etc). Those leaders and managers who have not yet activated or have problems with their @arec.nz accounts and need help to set up their computers and laptops will get hands on assistance.

This will also be an opportunity to meet and talk to members of the National management team about any other matters you wish. The training will be held at the Papakura Branch 65 Club rooms.

Could you please let Andy Brill, AREC Regional Manager North know if you plan to attend so that he can make arrangements. His email address is : [RMNth@arec.nz](mailto:RMNth@arec.nz)



## AUCKLAND VHF GROUP (INC)

SUPPORT THE EFFORTS OF THE VHF GROUP THROUGH YOUR  
SUBSCRIPTION

### SUBSCRIPTIONS FOR 2022

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 **\$60.00**

ASSOCIATE MEMBERSHIP **\$55.00**

FAMILY MEMBERSHIP ADDITIONAL **\$25:00**

*SEE ATTACHED MEMBERSHIP RENEWAL FORM (next page)*

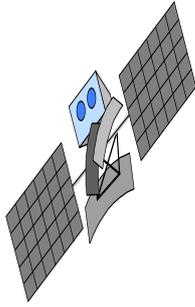
**REMEMBER TO KEEP US INFORMED OF YOUR EMAIL  
ADDRESS!**

**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,  
 Email: [treasurer@aucklandvhf.org](mailto:treasurer@aucklandvhf.org)  
 Web: <http://www.aucklandvhf.org>  
 NEW ZEALAND



				Date Form Completed			
Mr/Mrs/Miss/Ms		Forename			Surname		
	Address1				Phone: (home)		
	Address2			NZ Post Code	Phone: (work)		
	Town/City				Phone (Mobile)		
	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 #)	
New/Renewal/Change	Membership Category				To pay		
	Ordinary (Full)				\$60.00	\$	
	Associate				\$55.00	\$	
Family (per member after 1 full member registered at same address)				\$25.00	\$		
Donations	Klondyke Refurbishment					\$	
	Repeater Maintenance					\$	
	Data/D-Star					\$	
	Beacon/Repeater/Links Licences					\$	
	General Club Donation / Other					\$	
				Total		\$	
Payment (Mark One →)				Cash <input type="checkbox"/>	Internet deposit <input type="checkbox"/>		
If require Invoice / Receipt <i>Please Advise Treasurer</i>				Other: <input type="checkbox"/>			
Internet	Account <b>ASB 12-3011-0830580-00</b> . Account Name: <b>Auckland VHF Group Inc.</b> Include your <b>Name/Callsign</b> for track. Note: this form needs to be sent to us to update our records. Email to: <a href="mailto:treasurer@aucklandvhf.org">treasurer@aucklandvhf.org</a> . (Especially if Contact information has changed)						
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 <sup>nd</sup> Monday of the month or to the Committee meeting the 4 <sup>th</sup> Monday of the month.						
Privacy	Unsubscribe from Email Notifications <input type="checkbox"/>			Do Not disclose contact Information <input type="checkbox"/>			
	Unsubscribe from Google Groups <input type="checkbox"/>						

Club use only: <input type="checkbox"/>	Approved: <input type="checkbox"/>	Not Approved: <input type="checkbox"/>
Sponsored by*	Sponsor's Callsign*	
*New members only.	Date:	

The information requested is for membership records required to be maintained under the Incorporated Societies Act and having due regard to the provisions of the Privacy Act

***The Auckland VHF Group Inc Branch 66 NZART***  
*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 2022*

**2021-2022, Donations for Repeater Licences and Klondyke Refurbishment**

<b>Frequency + Operation</b>	<b>Location</b>	<b>Donation</b>	<b>Donor Name</b>
53.725 Repeater	Klondyke Road	\$50.00	Gwynne Rowe
144.253 Beacon	Nihotupu	\$50.00	Terry Corin
144.575 Digipeater	Whitford		
145.625 Data Rptr	Klondyke Road		
145.650 D-Star Rptr	Klondyke Road	\$50.00	Terry Corin
146.625 Repeater	Klondyke Road	\$50.00	David Wilkins
146.700 Repeater	Ruaotuhenua	\$50.00	Simon Bridger
146.900 Repeater	Mt Puketutu	\$50.00	David Wilkins
432.253 Beacon	Nihotupu	\$50.00	Terry Corin
438.175 D-Star Rptr	Klondyke Road	\$50.00	Terry Corin
438.450 Repeater	Klondyke Road		
438.500 Repeater	North Head	\$50.00	Terry Corin
439.850 Kaimai Link	Klondyke Road	\$50.00	George Marr
439.875 Nat System Rptr	Klondyke Road	\$50.00	Soren Low
439.900 Egmont Link	Klondyke Road	\$50.00	Yuri Muzyka
439.950 Brynderwyn Link	Klondyke Road	\$50.00	Terry Corin
1291.900 Repeater	217 Glenfield Rd	\$50.00	Michael Sheffield
DMR Rptr (Waitakere)	Quinns Rd	\$50.00	Auckland Area AREC
		<b>\$750.00</b>	

**2021-2022, Donations for Refurbishment**

Franklin Radio Club	\$200.00
Terry Corin, ZL1BPA	\$1000.00
Papakura Radio Club	\$500.00
Soren Low ZL1SLK	\$100.00
Ann Walker ZL1BFB	\$100.00
	<b>\$1900.00</b>

**Total** **\$2,650.00**

**Klondyke Tower  
Donations towards Maintenance**

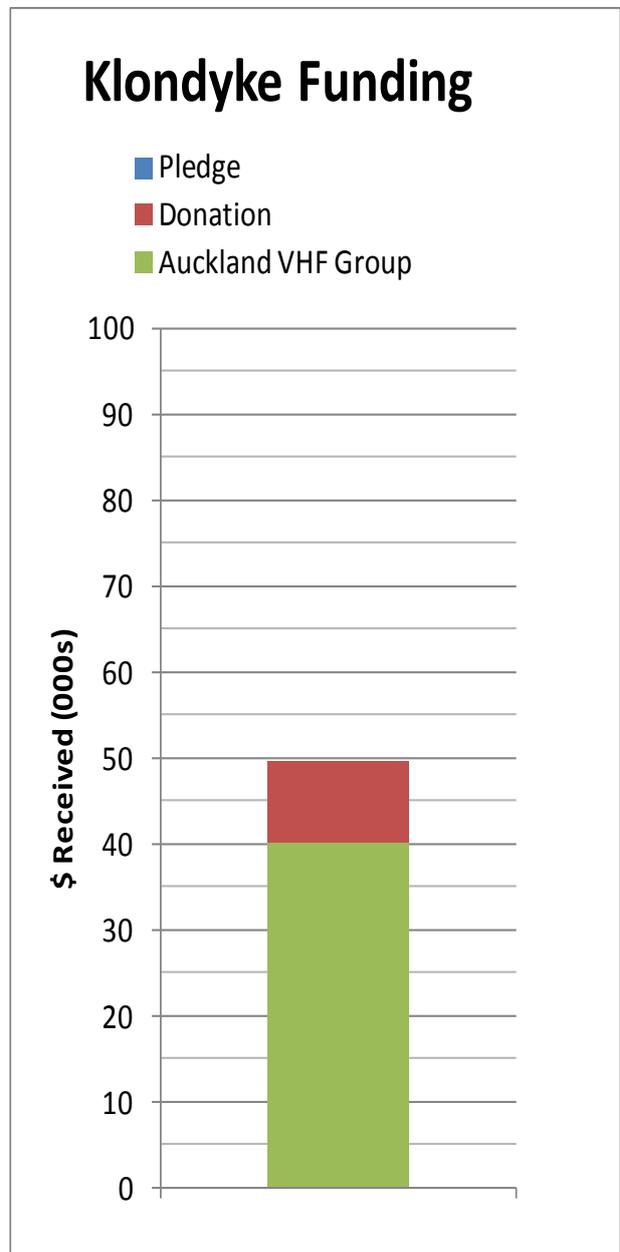
**Target      100,000**

Name	Donation	Pledge
Donations 2018 - 2021	9444.00	
George Marr      ZL1TUJ	50.00	
Dave Dingley    ZL1TIA	205.00	

Tower	63,245.00	Other	27268.25
GST	9,486.75		
Total	72,731.75	Total	27,268.25

Auckland VHF Group      40,000.00      40.00

Total	9699.00	-
Percent	9.70	0.00



## TRADING TABLE

Currently our Trading Table is only open on meeting nights.

**NEW** – Printed Circuit Board. Thanks to a generous donation from N.Z.'s last circuit board production company (now closed down), we have a large quantity of single sided fibreglass printed circuit board material in sizes ranging from 1200 x 600 down to smaller pieces. There's some double sided board as well. Come along to our May meeting if you want some – prices can be negotiated!

**NEW** – RG58C/U 50 Ohm Coaxial Cable. Thanks to a bulk purchase we are able to offer this good quality coax at a competitive price. The cable has tinned centre conductor and screen braid making it resistant to long term corrosion. The price is \$2.00 per metre with a discount for purchases of 20m or more. See Vaughan ZL1VH on meeting nights to get this quality coax cable.

The 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.

We also have heaps of parts from dismantled commercial analog TV gear – transmitters, filters, circulators, patch panels, power supplies. Too much to list individually, so come along to the clubrooms and have a look.

