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



A Men's Shed amasses the space, tools and machines to build in Woodwork, Engineering and Electronics with a community flavour.

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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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Head Repeater Trustee	Vaughan Henderson	ZL1VH	021 844 804	repeatertrustee@aucklandvhf.org
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670 Manager	Vaughan Henderson		021 844 804	670@aucklandvhf.org
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<b>ZL1VHD</b> Dstar gateway	administrator: Laurie	ZL1ICU	634 5130 0274	817463 perma@xtra.co.nz
ZL1VHD Dstar gateway	registration URI:	http://z	l1vhd.dstar.org.na	,

#### **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 was held on Monday 09 May at the Clubrooms, 30 Hazel Avenue after a visit to a Men's Shed

#### A visit to Auckland Central Men's Shed

It is located in Gribblehirst Park on Cabbage Tree Swamp Drive, off Sandringham Road, starting at 7 O'clock.

There are 5 Men's Sheds in Auckland with another being set up at Silverdale in a new building.

This will be followed by the usual Meeting back at the Clubrooms.

#### All welcome.

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

#### **Coming Events:**

- Sat 21 May, Radio Electronics Group annual new & used equipment Sale at the Glenview Club, 211 Peacockes Road, Hamilton, Vendors from 8:30, Doors open from 10 am.
   \$2 entry ticket with Door Prices and Refreshments.
- Sat 28, Sun 29 May Ham Cram Course North Shore Radio Club.
   Please email training@nsrc.nz for more information.

#### **Auckland VHF Group President's Column**

# VHF Group Presidents Report May 2022

The new Incorporated Societies Act 2022 is demanding a few minor changes to our constitution around membership. We are sorting that out.

Our Hydraulic tower trailer needs a new home. It is currently ensconced at Otahuhu, but needs to go. Any ideas? If anyone is interested in helping revive it, get in touch. We have replacement seals for the hydraulics, the chassis needs attention, the wiring needs replacing, and the whole



shebang could do with sand blasting and painting. A lovely winter project!

Before last month's general meeting our AREC group got together and ran through the operation of the DMR radios. Shortly I will send out a questionnaire to our AREC members asking when it suits them to have training sessions, and we'll be under way.

Last weekend Janice and I went to a retreat just the other side of Rotorua. On the way I had a few calls on 2 meter repeaters, but I have to say they are a lot quieter than they were thirty years ago. Even three years ago! So let's encourage each other to call up on them when we are

See you Monday

Cheers, Matthew King 022 6493310

#### Donations to the Auckland VHF Group

- Acknowledgement of donation from Terry Corin, ZL1BPA.
  The club has received a donation of 18 chairs for the clubrooms by Terry Corin, ZL1BPA on 21 February 2022 (Value \$180.00) as replacement for some of the chairs at the clubrooms that are getting a bit tired.
- 2 Acknowledgement of donation from Franklin Radio Club for \$200.00 for Repeater Licences.

#### Minutes of the April General Meeting of the Auckland VHF Group Inc.,

held on Monday 11 April at the Clubrooms, Hazel Avenue, Mt. Roskill

Present: ZL1YOT, ZL1VH, ZL1TCI, ZL1TUX, ZL1TOW, ZL1GSG, ZL1AOX, ZL1UMK, ZL1DI, ZL1NJM,

ZL1THH, ZL1UXB, ZL1JHW, Stephen Wilson.

**Present Via Teams:** Teams was not used.

**Apologies:** ZL1PSH

#### **Special General Meeting**

Commenced at: 19:40

Attendance as for the General Meeting.

Purpose: To review and adopt the 2020/2021 Financial Report.

Motion: "That the Financial Report for 2020/2021 be approved"

Moved ZL1TUX, Seconded ZL1AOX, Carried

There being no other business for the SGM, the meeting concluded at 19:46.

The April General Meeting resumed

#### Minutes of the March 2022 General Meeting

These were published in the April 2022 issue of Spectrum on page 5.

Motion: "That the minutes of the March General Meeting, having been published, be taken as a true and correct record of that meeting." Moved ZL1YOT Seconded ZL1TOW Carried

Matters Arising: ZL1VH advised that there had been no further news regarding the sale of the land at Klondyke Road and he would follow up with the land agent.

**Reports:** There were no reports.

#### **General Business**

Trading Table – ZL1VH advised that the Group planned to attend the Radio Electronics Group Sale in Hamilton on Saturday 21 May. Any members wanting to help would be most welcome.

The North Shore Radio Club was holding another "Ham Cram" weekend amateur radio class over the weekend of May 29 and 29.

Meeting Closed at 19:57.

#### **Guest Speaker**

Matthew ZL1YOT introduced the guest speaker for the evening, Jort Bloem from Tap Lab – a technology friendly Makerspace located on the Te Atatu Peninsular Community Centre, 595 Te Atatu Road. The Tap Lab is part of the global Makerspace movement which started in Germany.

#### **Jort Bloem on Arduino Applications**

The Tap Lab space has a laser cutter, CNC machine, Vinyl cutter and robotics equipment and much more. Jort coordinates the Wednesday evening "Hack and Snack" sessions which have a general focus on assisting with Arduino projects and electronics. Members bring their projects in and Tap Lab provides assistance. Different nights at Tap Lab have different activities. Attendance at Tap Lab is a gold coin donation and they get some Council and Corporate funding – this varies with different Makerspaces.

Jort asked what projects we were interested in and ZL1YOT asked what applications relating to radio he might know of. Jort asked what VHF Group members had experience of — Basil ZL1TOW described an application using and Arduino to give improved depth alarms for his yacht; lan ZL1AOX used an Arduino based controller to control the azimuth and elevation of a satellite tracking antenna with an interface to his PC; Matthew ZL1YOT was working on a temperature monitor. Another application was using an Arduino to control a telescope tracking and allow it to point in some absolute direction.

Jort suggested that it was hard to quantify exactly what you would use an Arduino for or what categorises the microprocessor and makes is most suitable for a particular application. The Arduino uses a family of chips made by Atmel running at clock speeds up to 20 MHz. The programming language is very like C or C++ and there is a very extensive free on-line library of "sketches" the name given to an application program running on an Arduino. The chips range from very low cost \$2 to \$4 processors with limited memory up to the AT-Mega with 50 I/O pins. The smaller low power chips can be expanded to give more I/O and memory using external i.c.'s. Features include a deep sleep mode with turns off the processor until an I/O input wakes it up. Makes the Arduino very useful in applications where minimum battery drain is important. Most of the processors have an internal clock although this is not accurate enough for long term timing applications.

In answer to a question about the advantages of the Arduino over the PIC series of microprocessors — Jort said each had its uses and it was a matter of using the right tool for the job. The Arduino is newer technology and has lots of community support.

Ian ZL1AOX advised that the Papakura Radio Club were looking at starting some projects making use of the Arduino family of chips on the 2nd and 4th Wednesday's of the month.

Matthew ZL1TOY thanked Jort for giving up his evening to talk to us and asked the meeting to show its appreciation with a round of applause.

#### 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.

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#### Results of the 2022 Low Band Contest – 2/3 April

VHF-UHF-SHF-EHF Contests, as administered by the Auckland VHF Group Inc; on behalf of all VHF groups, including all New Zealand radio amateurs and supported by NZART.

Overall Winner	Station	Points	Grea	atest DX	Stations	Distance
	ZL1GSG ZL2VS	3395 1103	6m	ZL1SWW	ZL1GSG	280 km
	ZL3RC ZL1SWW	932 690	2m	ZL4ES	ZL1GSG	758 km
	ZL1MIT 4	462 395	70cr	mZL3RC	ZL1GSG	532 km
<b>Band winner</b> 6 m (50MHz)	Station ZL1GSG ZL1MIT ZL1SWW ZL2VS ZM1X ZL3RC	Points 115 98 68 51 36				
Band winner 2 m (144MHz)	Station ZL1GSG ZL2VS ZL3RC ZL1SWW ZL1MIT ZM1X	Points 1954 903 514 338 291 211				
Band winner 70 cm (432MHz)	Station ZL1GSG ZL3RC ZL1SWW ZM1X ZL2VS ZL1MIT	Points 1326 406 284 148 139 73				

Active Stations (31 in total)

ZL1AKW, ZL1AVZ, ZL1BK, ZL1EUT, ZL1GSG, ZL1MIT, ZL1PR, ZL1RQ, ZL1SWW, ZL1THH, ZL1VH, ZM1X

ZL2ALW, ZL2TC, ZL2VS, ZL2YET

ZL3ADC, ZL3DC, ZL3IEH, ZL3JJ, ZL3MH, ZL3NW, ZL3OY, ZL3PIE, ZL3RC

ZL4AX, ZL4ES, ZL4HK, ZL4LV, ZL4OL, ZL4UC

#### **Operator Comments**

Was working ZL2YET as my first contact on 2 m @ 464 km. Good haul. Reasonable turnout and some good DX had.

It was good to see so many stations on and also to have some propagation which has been missing from all the contests I've operated in lately.

Had good signals from ZL2VS 470km and huge signals from ZL1GSG at 530km. It was interesting to hear that ZL3JJ was just detecting ZL1MIT on 2m talking to ZL1GSG.

May have been a contact here if the beam was turned this way. Probably would have been a digital contact too and that's worth remembering as FT8 has a contest mode where a number exchange is possible.

All and all a good weekend but would have been even better if Id remembered to take the 10Ghz Transverter up the hill on Sunday morning to work ZL1GSG, had everything but.

Had a good weekend the weather was great with lots of contacts made as well as testing microwave bands on 3.4ghz and 10ghz with successful contacts made on those bands.

ZL1MIT, first time solo for a VHF contest and first time at MOIRS Hill, south of Warkworth. I hadn't recced the area but did take a peek on Google earth.

I was late starting due to attending a Funeral, and also had an issue with my first UHF antenna (SAT X antenna) due to High VSWR. Although I didn't use it on the first day, ZL1BK reminded me I could have used my 5 Element VHF antenna instead.

I did take a while to get my listening ears on, but after several QSO's I got the hang of talking writing and listening all at once. I enjoyed the contest but need to sort out better aerials, use less adaptors, and start earlier. I found the accommodation to be suitable.

By all accounts this weekend's low band contest dished up some good weather and I understand some good DX was to be found on the lower bands. Several of us missed out on an opportunity to get out in Feb so we piggybacked on the low band contest to work some of the higher bands. Since Greg made a massive effort to drive down to Ruapehu, plus Royden having some new bands to add I ventured out on Saturday evening and managed to work both on 3.4GHz from the hills of Wellington, as well as Greg on 10GHz. Signals were not as strong as I hoped and some research after the fact revealed obstructions in the path. I was keen to improve upon my best DX on 24GHz so on Sunday I went for a test drive along Transmission Gully to the Paekakariki Lookout which was line of sight to Mt Curl and Turoa Skifield.

Greg was so strong on 10GHz that the antenna direction didn't matter so an easy contact. Shortly a:er I was able to peak on Royden ZL2VS for our first contact on 10GHz (@125km). I QSY'ed to 24GHz and I was able to make a good Q5 contact with Greg 195km away which is now my best DX on the band.

Great weekend, I needed my "contest fix" and gone down to Turoa. Optimum weather and close to 100 QSOs just on 2m. Bonus QSOs on 3.4, 10 and nearly 200km on 24GHz.

After the last contest I've got asked if we could include the station information to give the new-comers a better overview of what everyone is using.

Call	QTH	Altitude	Band	QSOs	Transceiver	Power	Antenna
ZL1GSG	RF70SQ	1610	50MHz	18	IC-7300	50W	2el HB9CV
			144MHz	90	IC-7300 + transverter	150W	9el Yagi
			432MHz	44	IC-705	140W	13el Yagi
ZL1MIT	RF73HM		50MHz	31	IC-7100	100W	2.5m whip
			144MHz	57	IC-7100	50W	5el Yagi
			432MHz	16	IC-7100	35W	6el Yagi
ZL1SWW	RF73KD	30	50MHz	26	IC-7400	100W	4el Yagi
			144MHz	61	IC-9700	100W	11el Yagi
			432MHz	32	IC-9700	75W	2x12el Yagi
ZL2VS	RF70RB		50MHz	12	FT-817	5W	Dipole
			144MHz	57	FT-817	40W	5el Yagi
			432MHz	18	FT-817	5W	5el Yagi
ZL3RC	RE66FL		50MHz	1	SunPRO2	1kW	7el Yagi
			144MHz	59	SunPRO2	1kW	12el Yagi
			432MHz	19	FT-991	1kW	22el Yagi
ZM1X	RF73JQ		50MHz	14	IC-7300	500W	5el Yagi
			144MHz	37	IC-7000	200W	8el Yagi
			432MHz	18	TS-2000	80W	14el Yagi

#### Thanks to all that participated

Simon, ZL1SWW Greg, ZL1GSG













## 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

\*\*\*\*

#### **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

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



#### **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 \$55.00

ASSOCIATE MEMBERSHIP \$50.00

FAMILY MEMBERSHIP ADDITIONAL \$20:00

SEE ATTACHED MEMBERSHIP RENEWAL FORM (next page)

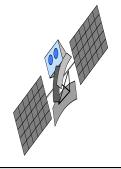
# REMEMBER TO KEEP US INFORMED OF YOUR EMAIL ADDRESS!





#### 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
Web: http:\\www.aucklandvhf.org
NEW ZEALAND



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Mr/Mrs/Miss/Ms	Forena	me				Surname				
	Addres	s1					Phone:	(home)		
	Addres	s2			NZ P	ost Code	Code Phone: (work)			
	Town/	City			1		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 #)
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	Inclu	de your <b>Na</b>	me/Callsign for t	rack. Not	e: this	form nee	eds to be s	ent to us	s to upd	late our records.
	Email to: treasurer@aucklandvhf.org. (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	Unsu	bscribe fro	m Email Notificat	ions 🗆		Do N	lot disclose	contact	t Inform	nation $\square$
	Unsu	bscribe fro	m Google Groups							
Club use only:		А	pproved:				Approved:			
Sponsored by*							sor's Callsi	gn*		
*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

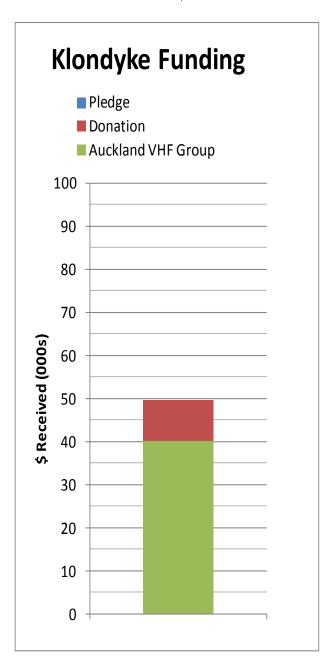
gratefully acknowledges the sponsorship of Branch 66 Beacons, Repeaters and Fixed Links license fees and the Group's repeater operations by the following radio amateurs and NZART Branches for 2022

2021-2022, Donations for Repeater Licences and Klondyke Refurbishment

Frequency + Operation		Location	Donation	<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	Ruaotuwhenua	\$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 Rpt	r (Waitakere)	Quinns Rd	\$50.00	Auckland Area AREC		
			\$750.00			
	2021-2022, Dona	ations for Refurbishment				
Franklin	Radio Club		\$200.00			
Terry Co	rin, ZL1BPA		\$1000.00			
Papakur	a Radio Club		\$500.00			
Soren Lo	w ZL1SLK		\$100.00			
Ann Walker ZL1BFB			\$100.00			
			\$1900.00			

Total \$2,650.00

Klondyke Tower Donations towards Maintenance			Target	100,000			
Name Donations 2018 -	2021	Donation 9444.00	Pledge	Tower	63,245.00	Other	27268.25
George Marr	ZL1TUJ	50.00		GST	9,486.75		
Dave Dingley	ZL1TIA	205.00					
				Total	72,731.75	Total	27,268.25
				Auckland	l 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 <a href="https://aucklandvhf.org/">https://aucklandvhf.org/</a> 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.

