

Papakura Radio Club
October 2026
Newsletter

Contents

Next Meeting October 7th, 2026, at 19:30 2
Notice of Papakura Radio Club (Inc.) Annual General 3
Minutes of General Meeting 02 September 2026 at 19.36 3
JOTA – JOTI will be on October 16 to 18, 2026. 4
OPEN DAY... Papakura Radio Club... October 17th 2026 5
HF Conditions – which frequency should I use? - ZL1MR 5
NR-1 HF Noise Blanker by SV3ORA 7
How do you make protons whizz around in circles at the CERN accelerator? 8
Contest Corral 9
Contest Calendar 9
Musick Point Newsletter link 9
New Zealand & Australian Amateur Radio Magazine 9
ZL1RJS Website 10
ZL1VK Kitsets available now...for immediate delivery. 10
Bank account change: 10
Papakura Radio Club Inc. 12

I intend to produce a newsletter each month, and it is planned to be sent out prior to each monthly meeting. If you have any items you would like to see in the newsletter, please send to me at iana@kcbbs.gen.nz

Ian Ashley ZL1AOX, Secretary.

Next Meeting October 7th, 2026, at 19:30.

The general meeting will be followed by a video of a flight in the Boeing 747-400 from Nadi Fiji to Auckland ANZ55 29TH May 2000. Last flight by ZL1AOX.



Notice of Papakura Radio Club (Inc.) Annual General

Wednesday 4th November 2026 at 20:00, (Following the general meeting at 19:30)

At the Clubrooms, Wellington Park

Business:
To receive reports
Financial statement
Election of Officers
Election of accounts reviewers
Appointments
Donations
Any other business.
We hope to see as many members present as possible for this, please.

Nominations for officers and the Committee are now open.

Please contact the Secretary zl1vkclub@gmail.com to obtain a nomination form or for information on nominations. Note that all nominations must be supported by a financial member in accordance with the club constitution

Minutes of General Meeting 02 September 2026 at 19.36

At the Clubrooms

Present: 15 as per roll book.
Teams: N/A
Apologies: ZL1AQS, ZL1RFF, ZL1TTM, ZL1ABR
ZL1BNQ/ZL1DK
Minutes of the August 05, 2026, General meeting as printed in newsletter were reviewed by Richard ZL1BNQ.
Matters arising: Nil
ZL1HOW/ZL1RJS
Inward Correspondence:

- Newsletters 29, 66, 10, 86
- Papakura Resilience meeting notices and minutes
- Lily Yao payment of invoice.
- Kim Squire CLM Community
- Papakura Business Association Ishtar Restaurant 52-54 O'Shannessey St.
- Musick Point newsletter.
- Auckland On the Air newsletter
- NZ and Australian Amateur Radio Magazine.
- Healing Hands re front stove elements not temperature controlled
- Electrotest special price on RigExpert Stick 230 Antenna and Cable Analyser

Outward Correspondence

Lily Yao from Auckland Seniors Support and Caring Group invoice
Newsletter
Reply to Healing hands re stove.

ZL1AOX/ZL1OJ

Finances: Dave ZL1MR reported that the Club cheque Account will be changed to the ASB Bank in October after end of Financial Year.

Accounts to pay:

Tristan ZL3TI	Keyboard	$32.00
Mercury Energy 17 August		$295.79

Moved by Dave ZL1MR, seconded by Rob ZL1RJS that accounts for payment be approved. Carried.

General Business:

Report Number 11 for 2026 year

Statement. Paid up Members 49

Statement Balance		$3,473.91
Balance plus deposits		$3,473.91
Invoices on Statement		
Mercury 17 August	$295.79	
ZL3TI Keyboard	$32.00	
Balance		$3,473.91
Plus Westpac savings		$9,419.65
Plus ASB Investments		$40,652.43
Total Papakura Funds		$53,545.99
Simple Saver MRC		$39,532.88
Funds held for AREC		$14,176.80
Funds in PRC Acc		$107,255.67

1. **Meetings 2026**:
   September 02: 10-minute talks by ZL1MR, ZL1RJJS & ZL1BFZ.
   October 07: Planning for Open Day on the 17th October.
   November 04: AGM
   December 02:
2. **Planned Open Day in October ZL1DK**: Update? Brochures from NZART – example from Hamilton shown. Poster from Tristan.

3. **Papakura Community Resilience Network Inc**. Joining of PRC to the CRN. Refer to newsletter page 7. Proposed that the Committee decide whether to join. Moved Dave ZL1MR, seconded by Helen ZL1HOW. Carried. Helen reported on her involvement with PCRNI.
4. **Xmas dinner function**: It's Papakura's turn to organise/host the Papakura Franklin Radio Clubs dinner.

5. **Klondyke:** The Auckland VHF Group are working through the financial situation. Helen has report for AREC. David ZL1DK thought that there was an old pylon lying on corner of Norrie/Firth Street.
6. Open day poster has been made

7. Coax required for antenna switch.?

Meeting closed at 20:03 and was followed by 10 minute talks by Dave ZL1MR on HF propagation, Rob ZL1RJS on his Website and David Robertson ZL1BFZ on communication between trenches in WW1 and radio signals received such as Whistlers.
Supper followed.

JOTA – JOTI will be on October 16 to 18, 2026.

Aaron ZL2BGA will provide us an update whether we can help the Manurewa Scout Group.

OPEN DAY... Papakura Radio Club... October 17th 2026

The Papakura Radio Club is planning an OPEN DAY, which is planned to be held on 17th October. Date and programme to be finalised soon.

That Saturday will see live demonstrations of Amateur Radio being held from 10.00 am right through the day and into the early evening. Demonstrations including HF (high frequency) communications over SSB (single sideband - voice), CW (morse code), FT8 (digital mode). There will also be demonstrations of VHF (very-high frequency) and UHF (ultra-high frequency) radios over simplex (radio to radio or direct line of sight) and repeaters (radio to repeater/repeater to radio) to increase distances of communications. On VHF we will have a repeater in action and over UHF we will have a link to the Winlink network. Winlink is a system where we can send messages for emergency communications. There will also be an active workshop where all the construction / repairs are carried out. On the construction side, we will be making a J-Pole antenna to suit the 2 metre band out of 300 Ohm TV ribbon... on the repair side we are going to be looking at a power supple that went 'BANG' some time back and needs repair.

There will be static displays of SSTV (slow scan television), examples of earlier radio used by amateur radio operators, some modified for amateur use, and some commercially available.

Where to from here... maybe it's time you considered amateur radio as your next hobby.

If so, you need to know what to do next... David ZL1DK

HF Conditions – which frequency should I use? - ZL1MR

There are many ways to see if you can communicate with another station using HF. For amateurs who are simply wanting to have a chat they just need to find a channel that is open and chat. After all fiddling with radio is what it is all about. Just call CQ and see what happens. If nothing on that band move on, eventually someone will call you back. But what if you want to be a bit more scientific about it all?

The Beacon option

Multiple bacons are setup worldwide and all transmit on the same frequency in each band with an offset time specific to each band and location. The network is synchronised using GPS so the switchover is seamless between sites.

The New Zealand station is ZL6B based in Masterton. The frequencies can be found on page 16 of the 2025 Call Book. More live data can be found on the International Beacon Page https://www.ncdxf.org/beacon/

You can program the five beacon frequencies into your radio as channels. You can then scan though the various channels and see which site is working. The problem is that each cycle takes 3 minutes with each station transmitting on each channel for 10 seconds.

There are 17 beacon stations around the world, but 18 ten-second slots are used to make the sequence fit within the 3-minute frame. As there are five channels in use, five stations are transmitting at any one time. So, when you want to target a particular area, you need to be well organised and prepared to listen for some time.

What I find particularly interesting is how the carrier power is stepped down from 100W, to 10W, to 1W and finally 100mW. On a good day it is surprising how far the 100mW CW tone will travel!

Try it out and see what you can hear.

Commercial network tools

Commercial operators need a far more predictable solution. Often, they have to manage fixed channels in vehicles, aircraft, and between ground stations. To that end they need to know which channels to use across the day, or if they should use an automated system.

Modern commercial radios use an automated beaconing system within the network called Automatic Link Establishment (ALE). Each radio in the network sends out a beacon every few hours. All the other stations in the network listen and record the signal strength in a table.

When one station wants to call another all the operator has to do is dial in the Selective Calling ID (Selcall) of the other radio, press the Push to Talk (PTT) and the radio will automatically change to the channel that is most likely to work. If the radio being called hears the signal it rings like a phone and the operator can quickly reply.

Whilst the automated beaconing system works effectively the equipment involved is not cheap. An amateur ALE option exists that operates off a PC, but it is not that user-friendly and is a niche tool.

Space Weather Forecasting

Space weather forecasting is now a real thing with courses taught at universities. The ability to predict solar activity has an impact on the management of satellites as well as affecting the capability of the ionosphere to ‘reflect’ HF radio signals.

The best local resource is the Australian Space Weather Forecasting Centre part of the Bureau of Meteorology. It used to be called Space Weather Services (SWS)

hence that name persists in the web address https://www.sws.bom.gov.au/HF_Systems. Rummage around on that website and see what you can find. It is the best predictor for local NIVIS propagation and regional HF conditions.

Another good source of information is https://www.youtube.com/@TamithaSkov. Tamitha used to be a materials engineer dealing with satellite materials and their ability to withstand the aggressive space environment. These days she teaches a course in Space Weather forecasting. Her two-weekly videos provide many insights into how the sun can affect HF transmissions.

NR-1 HF Noise Blanker by SV3ORA

I am Kostas, SV3ORA, the designer of the NR-1 Antenna Noise Blanker.

The NR-1 is a noise blanker that operates directly on the antenna, before your radio.

It eliminates strong impulse noise, such as power-line interference, without distortion and without requiring a separate noise antenna!

You can find the project here:

http://qrp.gr/nr1/

Since many HAMs suffer from impulse-type interference, I took the chance to contact you in case the NR-1 may be of interest to you.

If you know a HAM (or HAM club) that might be interested, please let them know about the NR-1.

There are several demonstrations and reports from radio amateurs around the world who are already using the NR-1:

YouTube demonstrations:

https://www.youtube.com/playlist?list=PL0KwxiKZqJ1TzQpscf3voh5CR1c30WLD_

NR-1 manual:

http://qrp.gr/nr1/sv3ora_NR-1_Antenna_Noise_Blanker_manual_EN.pdf

The main NR-1 page also contains user reviews, magazine publications and additional technical information.

In case you are interested in purchasing a unit, the NR-1 is available from Elisys in Greece, with worldwide shipping: https://shop.elisys.gr/products/nr1/

Just email them (email on their page is: shop@elisys.gr) to ask for price and availability.

I hope this was useful to you and thank you for your time!

73, Kostas, SV3ORA

How do you make protons whizz around in circles at the CERN accelerator?

Dave ZL1MR

First, you strip the electrons from hydrogen atoms. You now have a bunch of protons. You then hold them in a travelling wave guide using 16MV (mega Volts) electric fields at a frequency around 200MHz to keep the protons in their happy place. Then by changing the phase of the field you get them to move along into a synchrotron. The boosting of the protons in the synchrotron requires electric fields still at the 200MHz range but now boosting up to 30MV. Not a job for your Baofeng.



There are four modules shown. The dumbbell looking things are the tetrode valves (approximately 150kW each). In each set of five, one is an exciter and there other four RF amplifiers. Each set of 8x RF driver tubes produces a total of 1MW.

The orange/red pipework is the coax! A 50 Ohm coax using ceramic spacers with air insulation, not a piece of white foam separating the centre conductor from the shield for this system. The nuts on the flanges have to be carefully torqued to ensure the RF stays in the tube. Apparently, they had an RF leak once, only 330kW getting out!

The RF output from the units shown is then boosted by a further 5 stages to deliver the final 30MV output. Another section elsewhere on the site uses solid state

transistors to produce 2MW per module! The transistors have issues with heating and cooling, so the valves seem to be the better option.

Further excitement for you physics and RF nerds via Marco Reps' video (a bit long at 1h 56 minutes!): https://www.youtube.com/watch?v=Yibef6nLCv8&t=1805s.

I'm working my way through it, so you don't necessarily have to!

Dave ZL1MR

Contest Corral

Check for updates and a downloadable PDF version online at **www.arrl.org/contest-calendar**. Check **https://contests.arrl.org** for recent results. Refer to the contest websites for full rules, scoring information, operating periods or time limits, and log submission information

Contest Calendar

19th and 20th September WIA VHF/UHF Spring Field Day

Musick Point Newsletter link

Please find the latest MUSEletter at-

https://museletters.zlham.net.nz/m_2026.html

New Zealand & Australian Amateur Radio Magazine

https://us.list-manage.com/q3JEvLF3jc1?e=effe0514bb&c2id=2db5bf7fc7fbb67813cc7318b36a19dd
Use the above link to this newsletter.

Branch 29 North Shore Radio Club.

The latest 29-er has been uploaded.

A copy can be found here.

OrbitDeck for iOS

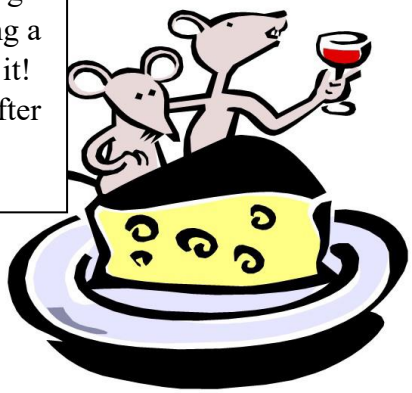
A comprehensive amateur-radio satellite tracker for iPhone and iPad — passes, Doppler, look angles, link budgets, orbital analysis, live space weather, and classic OSCARLOCATOR overlays.

Download from the Apple APP Store.

ZL1RJS Website

Rob ZL1RJS/ZL3RS has created a website at https://zl1rjs.co.nz/ which has information on projects run and supported by the Papakura Radio Club Inc. He also has links to manuals for various radios and other interesting items.

Just a reminder that our General Meeting supper is provided by Members bringing a plate, preferably with some goodies on it! We don't need a banquet just a snack after the meeting.



ZL1VK Kitsets available now...for immediate delivery.

- Anderson Power Pole Distribution, PC Board only… $5.00
- 2 Radio into 1 Headphone set switching radios, incl. PTT, PC Board only… $9.00
- Radio Interface for digital modes incl. Winlink, FT4, FT8 etc. Complete kit… $69
- Tait Radio TM8100 Series VFO unit… 100 Memories, Complete kit… $125
- Tait Radio VFO Escutcheon… clips over the VFO Unit… $15

The kits above are all designed by Keith Dix, ZL1BQE for the Papakura Radio Club.

The Diplexer is a kit designed by Rob, ZL1RJS for the Papakura Radio Club.

- Diplexer… UHF/VHF unit and metal Die-cast box, supplied, complete kit… $35

The following kit is still being finalised and will be available soon…

Voice Keyer… Record 4 messages, push button to play selection through TX radio, complete kit. TBA

Collect from the Papakura Radio Club most Wednesdays 7.30pm to 8.30pm or email zl1dk@nzart.org.nz for postage costs etc…

Bank account change:

Dave ZL1MR requests any money paid to the Club be directed to the ASB account as listed.

ASB 12-3031-0108608-00 - PAPAKURA RADIO CLUB INCORPORATED


PAPAKURA
RADIO CLUB
ZL1VK
OPEN DAY 2026
FROM MORSE CODE TO SATELLITES
CONNECTING PEOPLE • SHARING KNOWLEDGE • BUILDING COMMUNITY
AREC
Emergency Communications
SUPPORTING COMMUNITIES WHEN IT MATTERS MOST
SATURDAY
17 OCTOBER 2026
10:00AM – 4:00PM
PAPAKURA RADIO CLUB
WELLINGTON RESERVE
1R GREAT SOUTH ROAD, PAPAKURA
FREE ENTRY
EVERYONE WELCOME
NO LICENCE REQUIRED
HF RADIO STATION
VHF RADIO STATION
UHF RADIO STATION
SATELLITE COMMUNICATIONS
MORSE CODE
DISCOVER AMATEUR RADIO
WORKSHOP REPAIRS
HOW TO BECOME AN AMATEUR RADIO OPERATOR
AREC – EMERGENCY COMMUNICATIONS
AUCKLAND RESPONSE TEAMS
SCOUTS NZ – JOTA ON THE AIR
COASTGUARD DISPLAY
SEE AMATEUR RADIO IN ACTION
HF Radio Station
VHF Radio Station
UHF Radio Station
Satellite Communications
Amateur Radio Emergency Communications (AREC)
Auckland Response Teams
PRS Radios
Workshop Repairs
Morse Code
How to Become an Amateur Radio Operator
Scouts NZ – JOTA On The Air Activities
Coastguard Display
REAL RADIO
PRACTICAL SKILLS THAT LAST
REAL SKILLS
LEARN • BUILD • OPERATE
REAL CONNECTIONS
WORLDWIDE • LOCAL • LIFELONG FRIENDS
READY • TRAINED • CONNECTED
PAPAKURA RADIO CLUB ZL1VK
EST. 1970
PAPAKURA RADIO CLUB ZL1VK
https://www.qsl.net/zl1vk/
zl1vk.club@gmail.com
Papakura Radio Club ZL1VK
SUPPORTING OUR COMMUNITY THROUGH RADIO COMMUNICATIONS
VISIT OUR WEBSITE

Branch 65 NZART Club Directory
Wellington Park, 1 Great South Road.
ASB 12-3031-0108608-00 - PAPAKURA RADIO CLUB INCORPORATED
Club website: http://www.qsl.net/zl1vk Club email: zl1vk.club@gmail.com

President	ZL1BNQ	Richard Gamble	021 729 270
Vice President	ZL3TI	Tristan Ilich	027 889 3309
Secretary	ZL1AOX	Ian Ashley	021 198 1810
Treasurer	ZL1MR	David Wilkins	021 185 7903
Committee	ZL1DK	David Karrasch	021 560 180
	ZL1IRC	Ian Clifford	021 082 48400
	ZL1RJS	Rob Stokes	021 307 005
	ZL1RIC	Ricky Hodge	027 533 8155
	ZL1KIM	Kimi Nooroa	021 024 66004

AREC Section Leader	ZL1BNQ	Richard Gamble	021 729 270
CD Liaison	ZL1AOX	Ian Ashley	021 198 1810
Newsletter Editor	ZL1AOX	021 198 1810	
Hall Custodian	ZL1AOX	Ian Ashley	021 198 1810

Newsletter. Contact: Ian Ashley iana@kcbbs.gen.nz
Our newsletter is published monthly and normally distributed just before the club meeting.
Please forward articles etc to the editor Wednesday 1 week before the general meeting.
Please notify any change of address including E-Mail Address to the secretary.

Meetings

General Meetings are held at the Clubrooms on the 1st Wednesday of each month, starting at 7.30 pm. Look at your calendar and mark these nights. The speaker follows the General Meeting.
Activity Nights are held on the 2nd Wednesday starting at 7.30 pm.
Committee Meetings are held on the 3rd Wednesday of each month at 7.30 pm unless advised.
Project Evenings are on the 4th Wednesday of each month.
AREC Meetings are on the 5th Wednesday night, also starting at 7.30 pm
AGM: Held in November
Subscription: Full membership and newsletter $30.00 Family Membership and newsletter $45.00
Bank Account number: **ASB 12-3031-0108608-00 - PAPAKURA RADIO CLUB INCORPORATED**
Working Bees: As required.
Branch 65 21 Award: For contacts with ZL1VK (5 Points) and 8 Papakura Radio Club Members (2 Points each). Total 21 Points. Cost $5-00. Certified list and $5-00 to Secretary, Papakura Radio Club. Address above.

ZL1VK Club Nets

VHF: 146.625 MHz Sunday at 8.00 am. Controller ZL1BNQ Richard and any others available. If the repeater is not available, listen 146.475 MHz FM simplex.
HF: 3.755 MHz LSB, Sunday at 9.00 am. Controller Richard ZL1BNQ this Sunday with link repaired.
(Linked to 146.675 & 438.775 FM Tone 141.3Hz)