The Official Newsletter of the

PAPAKURA RADIO CLUB INC.

November 2025

KEEP CALM AND COME TO THE AGM

Contents...

November Calendar:

Wednesday 1st will be our General meeting. Following that we will have our AGM.

We encourage you to take the opportunity to chat with someone new and make the most of the supper that will follow.

If transport is a problem, let the committee members know, and we may be able to assist you with arranging a ride.

Alternatively, you can join the online Teams meeting by clicking the link below.

Join the meeting. Note: It will open 5 minutes before the meeting begins.

Meeting Dates

Wednesday 5th General Meeting & AGM
Wednesday 12th Activity Night
Wednesday 19th Committee Meeting
Wednesday 26th Project Night

If we each do a Little, it becomes a lot.

Club Activities:

Not our busiest month, with many members busy with other parts of our lives, but we have a quantity of radio equipment from an estate to sell, so watch this space.

Just a reminder of our ongoing projects

ZL1VK Kitsets available now… ex stock… for immediate delivery.

- Anderson Power Pole Distribution, PC Board only… $5.00
- 2 Radio into 1 Headphone set switching between radios, incl. PTT, PC Board only… $5.00
- Radio Interface for digital modes incl. Winlink, FT4, FT8 etc. Complete kit… $69
- Tait Radio TM8100 Series VFO unit… 100 Memories, Complete kit… $120
- 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.

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

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

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.

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

Notice of Papakura Radio Club (Inc.)
Annual General Meeting
5th November 2025 at 20:00

(Following the general meeting at 7:30)

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.

AGM reports:

Awards Report:
No applications for awards were received this year.

Hall Custodian: Ian ZL1AOX.

Two key boxes were installed in October 2015 to make it easier for access by Members and Committee when required and this seems to be working OK.

Hall Cleaning duties were carried out by David ZL1DK and John Feenstra. Thanks to all others for helping out. We thank the Healing Hands and our other users for maintaining the hall in a clean condition.

Our main user is the Healing Hands Spiritualist Church who use the Hall every Sunday and on some Friday evenings.

The Papakura Floral Art Group and the Papakura Garden Club are our other two regular users on the second and third Tuesday of each month.

Other groups aligned to Healing Hands have also used the Clubrooms during the year.

The Papakura Branch of the National Party have signed up for regular meetings on the 3rd Sunday of each month for this year and 2026. Times 1500 to 1700
The NZ Labour Party are also holding regular meetings usually on Monday evenings

The New Zealand Chinese Support and Caring Group have started to use the Hall every fortnight during the second part of this year. From 10.15 to 12.30.

The Coastguard made use of the hall for their Crossing the Bar forum again this year with over 40 attending.

NZ First Party have also used the hall twice during the year.

The Papakura Resilience Group have also used the Hall for several meetings.

The installation of three air conditioners was a major improvement to the Clubrooms in 2019-20 are still working well.

The Club's Audo Visual & sound system has been improved during the year thanks to Ian ZL1IRC, Rob ZL1RJS and David ZL1DK.

Thanks also to Rob ZL1RJS for the new 75-inch TV screen which is used on a regular basis.

Ian Ashley, ZL1AOX, Secretary, Papakura Radio Club Inc.
31st October 2025.

Papakura Radio Club Inc. – Treasurers Report 2025

For this past financial year 1 October 2024 to 30 September 2025, the club has made a net income of $894. This is roughly double the next Income from the 2024 year.

You may notice there was no $1200 CDEM Grant income this year. This was an oversight as the funds were paid to Akl AREC but somehow the payment to PRC was overlooked! That has been fixed so the money is now in the PRC account.

We have funds in Term Deposit and as normal we have Resident Witholding Tax (RWT) deducted whenever interest is credited. This means that we have automatically paid the bulk of any tax bill that may fall due in the event we exceed our $1000 deductible threshold.

Most years I expect our tax due will be less than the RWT deducted so we should be getting a small tax refund. This year after adjustments, it appears we will once again get a refund.

Interest rates are steadily declining so our income from that source will reduce slightly for the next year or two. Our subscriptions have remained low over the past few years. As inflation is driving down the purchasing power of the dollar, we need to consider a small increase, maybe next year?

So current members, and those who have dropped out of paying fees, please renew your subscriptions in November by Direct payment to the club bank account so we can maintain a vibrant club able to keep your interest in radio alive and that our clubrooms serve as a social gathering place.

Our biggest bill continues to be power. In 2005 our total power was $664, in 2015 it was $1319, and now in 2025 it is $2596. That is a near doubling every 10 years!

Insurance slowly creeps up but only by small increments. Depreciation costs are primarily accounted for by the air conditioning equipment. The small audio-visual purchases of less than $1000 are written off in the year of purchase so also contribute.

R&M has primarily involved replacement of the taps in the kitchen, repairs to the flooring, and a full wax and polish of the vinyl flooring.

We have now altered our donations policy for the VHF Group to reflect the number of members. We need to remain mindful of how much we contribute to other clubs and NZART to ensure our club continues to be a viable proposition.

Since 2013 the club accounts were prepared using a standalone version of the QuickBooks accounting package. My computer died and along with that went the software as it cannot be reloaded to my replacement Win 11 computer.

On that basis I created a semi-automated version of the accounts system using the MS Excel spreadsheet software. The spreadsheet has been tweaked and fine-tuned, primarily with the eagle eye of Mike ZL4MDE providing useful feedback.

I have now created an Excel template which means that next year completion of accounts should be relatively straightforward. Also, if I depart this planet, someone else should be able to pick up the template, follow the instructions and carry on where I left off.

If any tweaking of the software is required and I am not available, I am sure there is sufficient expertise in the club to be able to adjust formulae and add/remove rows in such a manner that the system will run for a very long time.

Thanks to the reviewers for ensuring I remain under semi-control. I am happy to continue as treasurer for another year.

David Wilkins – ZL1MR

AREC Report for 2025

AREC has been very quite this year as Land SAR call outs would number about five attended my Helen, Ian, Dave and myself.

Car rallies have now finished for AREC as Rally of Whangarei is now a national round and don't need 5km operators, Maramarua Forest events have also stopped due to lack of cars available to make up a field.

Our main activites have been to do with CRG's, mainly attending their meetings and also hosting the odd meeting. Dave and myself have replaced the radio antennas to allow Drury and Papakura Marae CRG's to get back on the air.

We have had a few training nights at the clubrooms to try and bring the new members up to speed on what repeaters are available for AEM/CD use and what gear is required to setup a base station, along with health and safety awareness.

Richard Gamble
ZL1BNQ/ ZL1ESA Papakura Group Leader.

2025 Examination Administration Report:

This financial year, we have eight new hams who sat and passed the radio exam. As special ham cram was held at the Army base in Grove Road for six candidates and two who sat and passed at the Papakura Club rooms.

Six who sat in December 2024 and Tristan in January 2025 and Ryan sat his exam in July 2025. Thanks to Gavin ZL1NUX and Ian ZL1AOX who assisted me with the exams. Congratulations to all the following candidates: -
John Kerr ZL3ABC Stephen Chang ZL2WNG Trevor Austin ZL1AUS Colin Hillman ZL1CNC Cameron Hale ZL4CPH Drew Beaver ZL3QRV Tristan Ilich ZL3TI Ryan Fadriqela ZL1RFF

Please listen out and give them a call. Welcome to the Airwaves and the Papakura Radio Club. Well done and enjoy the hobby.

If you know of anyone interested and wanting to become a radio ham, please let me or any of the committee know and we can do the rest. Our contact details are always on the back of the Papakura Club’s newsletter.

73 de Rob ZL1RJS

2025 Presidents Report:

Another year has passed, and with it come even more change. We have sadly lost a number of members, past and present, and friends too. While we have not seen major changes, the march of time has resulted in a number of changes.

Despite previous numbers of Ham Crams, and a few new members joining us this year, our membership has remains almost static, and his may mean we need to have a long hard look at why we have failed to attract, or retain members. Given we are at the peak of the solar cycle, and the HF bands are normally very open, the lack of interest in HF may be a sign of a need to review the services our members want from a club.

Our AV system allows virtual attendance yet despite creating links to these each month, the system seems to have suffered from a few issues. In addition to the technical aspects of the AV system, we may need to look at how we send out invitations to the on-line meetings. Learning new systems can be difficult, and modern IT isn't easy for some of us with older brains, and die-hard habits.

One area of possible concern is in our current lease arrangements. Many clubs on Council land, have already received a large increase in rent/lease, and our lease is due for renewal, It is unlikely we will receive the same sort of favourable terms from a council that needs to make ends meet. But hopefully our involvement in the local community will help, so a big thanks to those who have worked with the resilience groups and other community initiatives. Its never been more important to be a part of the community, and to be seen as active contributors, and not simply consumers.

On the Radio Front, It's good to see the Hastings Trophy back home, and a big thank you to all who worked the JWFD contest to help us recover our position as competitors. Running the contest is a lot of work, and takes a team to set up and take down, as well as to operate the contest. And it's always rewarding to be able to prove our skills in HF contesting. With other events like rally's, fun runs, and Cycle races becoming less frequent, It may be worth considering if a VHF version would be of value, where VHF simplex skills could be developed? Perhaps this might be an opportunity to consider it the NZART centenary year.

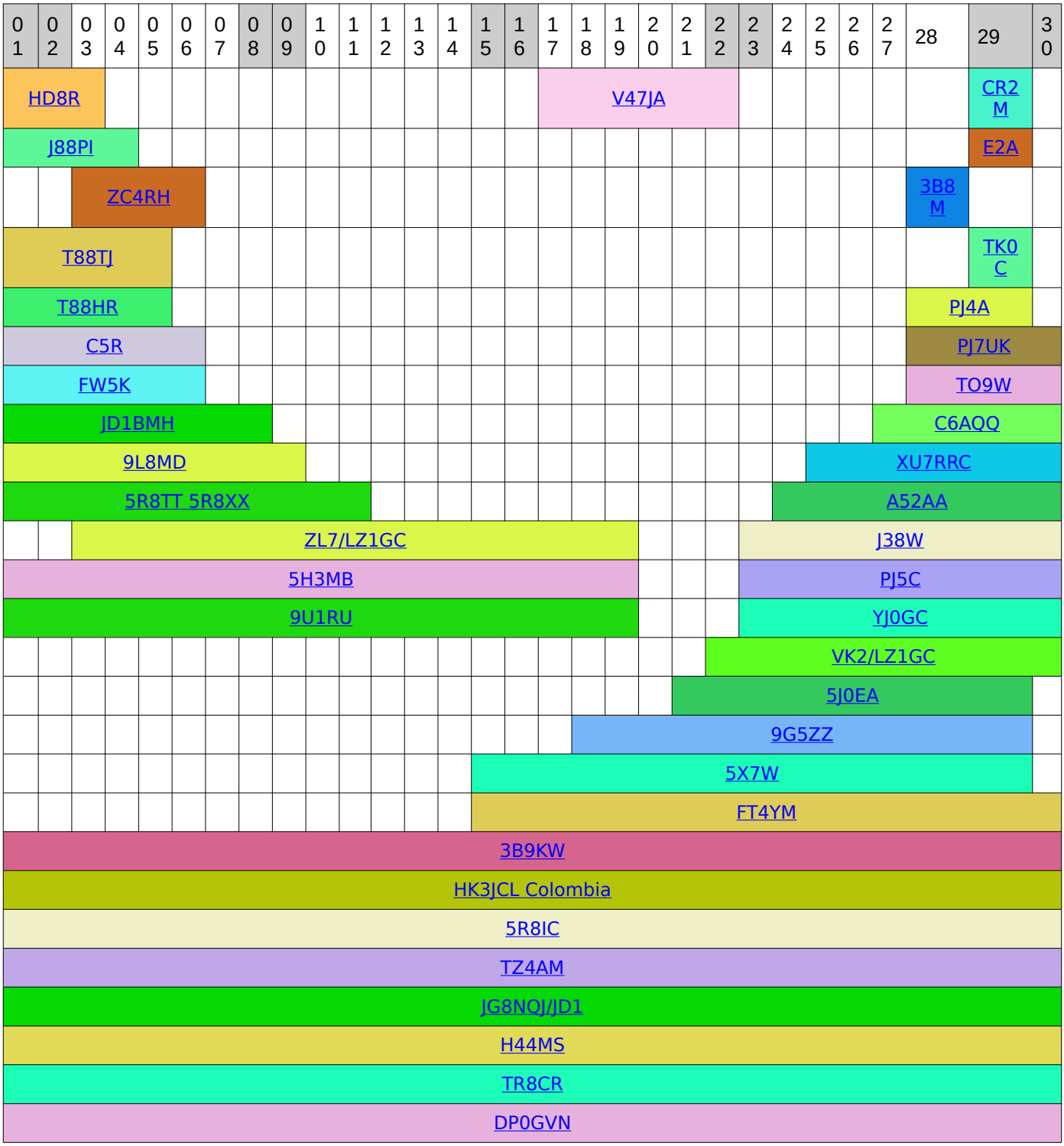
Another interesting development has been the resurgence of PRS and CB radio among resilience groups, and since the old radio clubs in this space no longer exist, is there an opportunity for us to build bridges with the unlicensed operators? Given that the PRS repeaters are almost all managed by Hams, this may not be as far fetched as it may at first seem. Its definitely food for thought. After all we are first a foremost a Radio club.

But despite the challenges, the Club remains financially viable, and our community presence keeps growing. This is positive in a time where clubs everywhere are struggling.

It has been a privilege serving you this year, and as we look at 100 years of NZART, Its also worth noting we are entering our 86th year, so our own centenary is not that far away. I hope that the spirit of resilience, determination, creativity and friendly rivalry will only grow to make this club and this hobby one that will continue to attract the best and the brightest, so they may push the boundaries and find new and exciting ways to make radio and electronics technologies attractive to a new generation of Ham Radio operators. So let's rise to the challenges ahead, and enjoy and share our hobby. The future is filled with potential.

Gavin Denby ZL1NUX

DX Calendar October 2025



Click any link above for details on the expedition.

Featured DX: ZL7/LZ1GC Chatham

Stan, LZ1GC will be active as ZL7/LZ1GC from Chatham Island, IOTA OC - 038,
3 - 20 November 2025.
He will operate on HF Bands, CW, SSB, Digital modes.

The Chatham Islands – a paradise for birds and tourists

The Chatham Islands archipelago is located 680 kilometers from New Zealand. It consists of two relatively large islands inhabited by humans and eight reefs and smaller land areas. The archipelago has a population of about 700 people. Most of them are descendants of Europeans, Maori Indians who conquered the archipelago before the arrival of “white” people, and indigenous Māori who have mixed with the newcomers over the centuries.

The nature here is exceptionally beautiful, almost untouched by humans, with colorful fishing villages inhabited by surprisingly friendly people. Visitors to the islands are greeted with special warmth. Picturesque volcanic peaks and cliffs, sandy beaches against a backdrop of green vegetation, exotic trees bent to the ground by the wind—all this creates a unique atmosphere that attracts tourists.

The mysterious Chatham Islands are a treasure trove for flora and fauna enthusiasts

This archipelago attracts scientists from around the world who specialise in the study of rare and exotic birds. There are many species of birds that can only be found on these islands.

These include oystercatchers and tufted ducks on the coast, local cormorants, and other endemic bird species. In addition, the archipelago is home to a large number of unique plants and invertebrates, and the coastal waters are home to “exclusive” fish species.

Interestingly, due to animals brought to these islands by humans, such as rats, dogs, possums, cats, and other animals, many unique birds are threatened with extinction, as the “newcomers” began to actively exterminate them. Today, about a third of the 64 endemic species have already disappeared. These include Chatham penguins, ducks, swans, and several other bird species.

However, as part of nature conservation programs, local residents are removing introduced animals that threaten unique local populations of endemic species from the habitats of these unique birds.

Thanks to this, the Chatham albatross, the Magenta storm petrel, and the most important living attraction, a species of petrel found only on these islands, have been preserved. In addition, many marine mammal species can be seen in this archipelago. Twenty-five types of dolphins and cetaceans live here, as well as five species of seals. Even white sharks can be seen in the Chatham Islands area. They are sometimes encountered by fishermen and diving enthusiasts.

All the pleasures of a vacation far from civilization

Tourists usually stay on two inhabited islands, Chatham and Pitte. There are no luxury hotels or developed infrastructure for recreation and leisure. But according to many visitors, this is part of the charm.

Most of them live in the settlement of Whaitangi, located on the coast of a beautiful bay. A whole network of bungalows has been prepared for vacationers in this place. In addition, Whaitangi has a pier where yachts and small boats can moor.

In summer, you can enjoy sunbathing on the beaches and swimming in the sun-warmed waters of Te Whanga Lagoon. When the storm season begins in late September, surfers from New Zealand, the USA, Australia, and other countries flock to the islands to enjoy the incredible thrill of riding the waves on their boards.

Fishing enthusiasts also get indescribable pleasure from this activity. The coastal waters of the islands are teeming with a wide variety of exotic creatures.

Tourists can also take advantage of kayaks for short trips. Some foreigners enjoy spending their time yachting in Petre Bay.

Many visitors to the islands are interested in hiking. They enjoy the picturesque landscapes, and some find interesting items, such as the fossilised teeth of a giant predatory shark that inhabited these waters about 300 million years ago.

Some tourists who have settled on Chatham Island take a sea voyage to Pitt. Here, there are amazingly beautiful sunrises that mark the birth of a new day on Earth, as this piece of land is located on the date line.

The archipelago is most visited by tourists between September and March. This is spring and summer in the Southern Hemisphere. The Chatham Islands have amazingly beautiful wildflowers that bloom during this period, delighting locals and visitors with their incredible rich colours. In October, tourists can watch and even participate in the very unusual and colourful “Forget-Me-Not Festival,” which is incredibly popular with locals and visitors alike.

It is for these reasons that the Chatham Islands are considered a true paradise for lovers of magnificent nature, as well as a secluded, peaceful, and quiet vacation spot.

ZL7/LZ1GC. Where is Chatham Island located. Map.

ZL7/LZ1GC Chatham. Sunrise 11-03-2025 at 16:21 GMT sunset at 06:37 GMT

Upcoming Contests

November 2025

Refer to the contest websites for full rules, scoring information, operating periods or time limits, and log submission information.

Start - Finish				Bands	Contest Name	Mode	Exchange	Sponsor's Website
Date	Time	Date	Time					
1	0000	2	2359	1.8-28	YBDXPI FT8 Contest	Dig	4-char grid square	contest.ybdxpi.net/rules
1	0600	1	0859	3.5,7	Silent Key Memorial Contest	CW	RST, SK call sign you wish to recognize	www.skmc.hu/en/rules.html
1	0600	1	1800	3.5-28	IPARC Contest, CW	CW	RST, serial, IPA, US state (if USA)	www.iparc.de
1	1200	2	1200	3.5-28	UK/EI DX Contest, SSB	Ph	RS, serial, UK/EI district code (if UK/EI)	www.ukeicc.com
2	0600	2	1800	3.5-28	IPARC Contest, SSB	Ph	RST, serial, IPA, US state (if USA)	www.iparc.de
2	0800	2	1200	Any	EANET Sprint	CW Ph Dig	RS(T)	fediea.org
2	1400	2	1700	3.5-28	High Speed Club CW Contest	CW	RST, mbr or "NM"	www.highspeedclub.org
2	1400	5	0800	1.8-28,50,144	Classic Exchange, Phone	Ph	Name, RS, SPC, rcvr/xmtr model	www.classicexchange.org
3	2000	3	2130	3.5	RSGB 80m Autumn Series, Data	Dig	RST, serial	www.rsgbcc.org
4	0100	4	0300	3.5-28	ARS Spartan Sprint	CW	RST, SPC, power	ars-qrp.com
5	1700	5	2100	144	VHF-UHF FT8 Activity Contest	Dig	4-char grid square	www.ft8activity.eu
5	2000	5	2100	3.5	UKEICC 80m Contest	Ph	6-char grid square	www.ukeicc.com
6	0000	7	0300	7	Walk for the Bacon QRP Contest	CW	13 WPM max; RST, SPC, name, mbr/ pwr	qrpcontest.com/pigwalk40
6	1800	6	2200	28	NRAU 10m Activity Contest	CW Ph Dig	RS(T), 6-char grid square	nrau.net
6	2000	6	2200	1.8-28,50	SKCC Sprint Europe	CW	RST, SPC, name, mbr or "none"	www.skccgroup.com
8	0000	8	2359	3.5-28	FISTS Saturday Sprint	CW	RST, name, mbr or "0," SPC	fistsna.org
8	0000	9	2359	3.5-28	WAE DX Contest, RTTY	Dig	RST, serial	www.darc.de
8	0000	10	2359	1.8-7	PODXS 070 Club Triple Play Low Band Sprint	Dig	RST, SPC	www.podxs070.com
8	0001	9	2359	28	10-10 International Fall Contest, Digital	Dig	Name, mbr or "0," SPC	www.ten-ten.org
8	0700	9	1300	1.8-28	JIDX Phone Contest	Ph	RST, JA prefecture number or CQ zone	www.jidx.org
8	1200	9	1200	1.8-28	OK/OM DX Contest, CW	CW	RST, 3-letter OK/OM district code or serial	okomdx.crk.cz
8	1200	9	2359	1.8-28,50	SKCC Weekend Sprintathon	CW	RST, SPC, name, (SKCC no./"NONE")	www.skccgroup.com
8	1900	10	0500	1.8-28,50, 144,432	CQ-WE Contest	CW Ph Dig	Name, location code, years of service	w8zpf.com/cqwe
8	2300	17	0300	1.8-14	AWA Bruce Kelley 1929 QSO Party	CW	RST, name, QTH, equipment year/ type/pwr	antiquewireless.org
9	0700	9	1700	3.5-28	FIRAC HF Contest	Ph	RS(T), serial	www.firac.de
10	0100	10	0300	1.8-28	4 States QRP Group Second Sunday Sprint	CW Ph	RS(T), SPC, mbr or pwr	www.4sqrp.com
11	1900	11	2029	3.5	DARC FT4 Contest	Dig	RST, 4-char grid square	www.darc.de
12	1700	12	2100	432	VHF-UHF FT8 Activity Contest	Dig	4-char grid square	www.ft8activity.eu
12	2000	12	2130	3.5	RSGB 80m Autumn Series, SSB	Ph	RS, serial	www.rsgbcc.org
15	0700	16	0659	1.8-28	Ham Spirit Contest	CW Ph	RST, ITU zone, 2-char grid square	hamspiritcontest.ru
15	1600	15	2359	1.8	All Austrian 160-Meter Contest	CW	RST, serial, OE district code (if OE)	www.oevsv.at
15	1700	15	2359	1.8	REF 160-Meter Contest	CW	RST, serial, department code	concours.r-e-f.org
15	1800	16	2100	3.5,7,21,28	South American Integration Contest CW	CW	See rules	sacw.cwsp.com
15	1900	15	2059	1.8-28,50	Feld Hell Sprint	Dig	See rules	sites.google.com/site/ feldhellclub
15	2000	15	2300	1.8	RSGB 1.8 MHz Contest	CW	RST, serial, UK district code (if UK)	www.rsgbcc.org
16	0000	16	2359	3.5-28	FISTS Sunday Sprint	CW	RST, SPC, name, mbr or "0"	fistsna.org
16	1300	16	1700	3.5,7	Homebrew and Oldtime Equipment Party	CW	RST, serial, class	www.qrpcc.de
16	2300	17	0100	1.8-28	Run for the Bacon QRP Contest	CW	RST, SPC, mbr or pwr	qrpcontest.com/pigrun
17	2000	17	2200	3.5-28	RSGB FT4 Contest	Dig	Signal report	www.rsgbcc.org
19	1700	19	2100	1.2G	VHF-UHF FT8 Activity Contest	Dig	4-char grid square	www.ft8activity.eu
20	0000	21	0300	14	Walk for the Bacon QRP Contest	CW	13 WPM max; RST, SPC, name, mbr/ pwr	qrpcontest.com/pigwalk20
20	0130	20	0330	3.5-14	NAQCC CW Sprint	CW	RST, SPC, mbr or pwr	naqcc.info
20	1900	20	2000	3.5-14	NTC QSO Party	CW	25 WPM max; RST, mbr or "NM"	pi4ntc.nl
22	1200	23	1200	3.5-28	LZ DX Contest	CW Ph	RS(T), 2-letter district or ITU zone	lzdx.bfra.org
23	0000	23	0400	3.5-14	North American SSB Sprint Contest	Ph	Other's call, your call, serial, name, SPC	ssbsprint.com
26	0000	26	0200	1.8-28,50	SKCC Sprint	CW	RST, SPC, name, mbr or "none"	www.skccgroup.com
26	2000	26	2100	3.5	UKEICC 80m Contest	CW	6-char grid square	www.ukeicc.com
27	2000	27	2130	3.5	RSGB 80m Autumn Series, CW	CW	RST, serial	www.rsgbcc.org
29	0000	30	2359	1.8-28	CQ Worldwide DX Contest, CW	CW	RST, CQ zone	www.cqww.com

Note: All dates and times are in UTC (Except SKN), Mbr = Membership number. Serial = Sequential number of the contact. SPC = State, Province, DXCC Entity. XE = Mexican state.

Ramblings from the editor's desk

It's the AGM, so that means I get to write a report, rather than my normal waxing lyrical about ... stuff.

Its been another year of editing (and often writing) the content of the newsletter, and despite a few missed editions, we have managed to get a number of editions out over the year. Sadly the biggest issue is a lack of content from others.

You don't have to be a professional writer, just anyone who is willing to share a little of what you're up to will be fine. Any and all copy would be gratefully received. So perhaps you might try to submit a little something?

Otherwise the content will be whatever catches my eye.

I would like to try to address one technical issue every month going forward, You know, Talking about ham radio. So this month I've taken on the old Diplexer V Duplexer argument, and hopefully it will make sense.

Perhaps you have a topic you might like to see addressed?

Otherwise it may be some pictures of me fixing the antennas around the place. Hardly riveting stuff.

But a big thank you to all that have commented on their activities, from resilience groups, to Finding Relatives over the airwaves and even sharing trips away, as well as the things I fixed, or bought articles have all contributed to what is a growing readership.

So we must be doing something right

On the other hand, My life has never been so busy, so I can't guarantee that we will be able to keep up with large editions, so don't be surprised if the next few editions are lighter than previous ones.

But I'll plod on, unless someone wants to take on the editors trole, in which case I may have more time to write some articles instead.

Otherwise see some of you at the AGM, and thanks for taking the time to read this.

And a big thank you to all who have added updates, or corrected mistakes.

It all helps

73, for now, de ZL1NUX

Skynet 1A Military Spacecraft Launched 56 Years Ago Has Been Secretly Moved By Mysterious Persons Still Unknown

Ok so maybe not the SKYNET from the terminator movies ... But

A Cold War satellite that should be a silent relic has stirred. Amateur sky-watchers say the British military craft Skynet 1A, launched 56 years ago, just jumped to a new spot in space — and no one will say who moved it, or why.

“Check the latest elements for Skynet 1A.” Coffee went cold. Tabs opened. Numbers that usually barely change had shifted like a heartbeat quickening after a sprint.

Outside, the sky looked the same — calm, heavy, indifferent. Inside, screens plotted a ghost from 1969 now inches away from an address it hadn’t visited in decades. The channel buzzed with pings and theories and the soft hum of disbelief.

Launched in the late 1960s, Skynet 1A was Britain’s first military communications satellite. It spoke for a brief, bright moment, then fell quiet — a museum piece still in the sky. Most dead satellites at geostationary altitude drift slowly, like buoys in a lazy tide.

Trackers say this was different. A fresh set of orbital elements, the numbers that describe a satellite’s path, showed a step change rather than a gentle slide. That kind of jump hints at a nudge. Small on paper, huge in meaning.

How small? A tiny push — just centimetres per second — can translate to tens of kilometres of shift over weeks. That’s the cruel maths of high orbit. Natural effects like solar radiation pressure can move objects too, but they don’t usually look like someone tapping the brakes. This did.

It started with pattern-watchers. They cross-check public orbital data sets against their own telescope logs. When the latest Two-Line Element set for Skynet 1A landed, some saw an unexpected tweak in parameters that don't twitch on their own. Screenshots spread. DMs pinged. Within hours, a half-dozen independent observers had flagged roughly the same thing: a relic shifted.

If you want to follow along, the basic workflow is simple in theory and fussy in practice. Grab historical TLEs for the object long cataloged as Skynet 1A from a public source like CelesTrak. Load two snapshots a few weeks apart into an orbit viewer that supports SGP4. Plot the longitude, inclination, and relative mean motion, then look for a discontinuity. That "step" is what set alarms ringing.

Three buckets sit on the table: nature, numbers, and someone. Nature first: sunlight pushes, gravity tugs, and old hardware can shed fragments that alter a satellite's balance. Numbers next: catalogue errors happen, sensors mislink the objects, and sometimes a new radar pass cleans up a messy file. Someone last: a servicing craft, an inspector, or a stealthy demonstrator could give a brief kiss of delta-V and drift away.

Motives vary. An inspection might test rendezvous tech on a quiet, uncomplaining target. A space situational awareness mission could refine tracking on a known derelict. An actor aiming to calibrate sensors might move a familiar hulk, note the change, and measure who notices. None of these require a press release.

And then there's heritage. It felt like a hand reached up from 1969 and tugged our sleeve. If you're running an unpublicized spacecraft with the ability to nudge things, a dormant military bird is a tempting laboratory. Low political heat. High technical value.

Who would move a 56-year-old British military satellite? Pick a category, not a flag. Commercial servicers testing rendezvous. Government inspectors doing a proximity survey. A small demo craft auditioning a "touch and go." In high orbit, a few centimeters per second is a sentence; a few minutes of thrust is a novel.

There's also the boring answer: the catalog got tidied, and the numbers we live by were never as solid as we wish. GEO is wide, tracking is hard, and a lot of legacy objects look like smudges until a better sensor squints. A re-labeled piece of debris can masquerade as motion if you don't triple-check.

Still, if there was a nudge, it raises questions that hang in the air. Who gets to move museum pieces in orbit? Is a derelict military satellite fair game for experiments? Where are the norms that say "ping me first" at 36,000 kilometers up? These are not academic points. A quiet nudge today can be a noisy scrape tomorrow.

A drifting relic from the late 1960s suddenly looking lively says something about us. We're better at touching old things than talking about why. The watchers who caught the shift run on curiosity, not budgets. Their screenshots are breadcrumbs we follow toward the uncomfortable middle ground between secrecy and safety.

Maybe nature did it. Maybe numbers did it. Maybe someone did. The outcome matters less than the process we build to ask, and answer, together. If a silent satellite can be moved without fanfare, what else moves in the quiet while we sleep?

Unknown operator or not, the next days will tell. Fresh data will either smooth the jump or confirm the scar. If you've never looked at the Clarke Belt with your own eyes — in code, in charts, in a backyard scope — this is your nudge. The sky leaves receipts. We decide whether to read them.

What exactly is Skynet 1A? Britain's first military communications satellite, launched in the late 1960s and long defunct, drifting near the geostationary belt.

How was the movement detected? By comparing fresh Two-Line Element sets to earlier ones and spotting a step change, then discussing it across tracking communities.

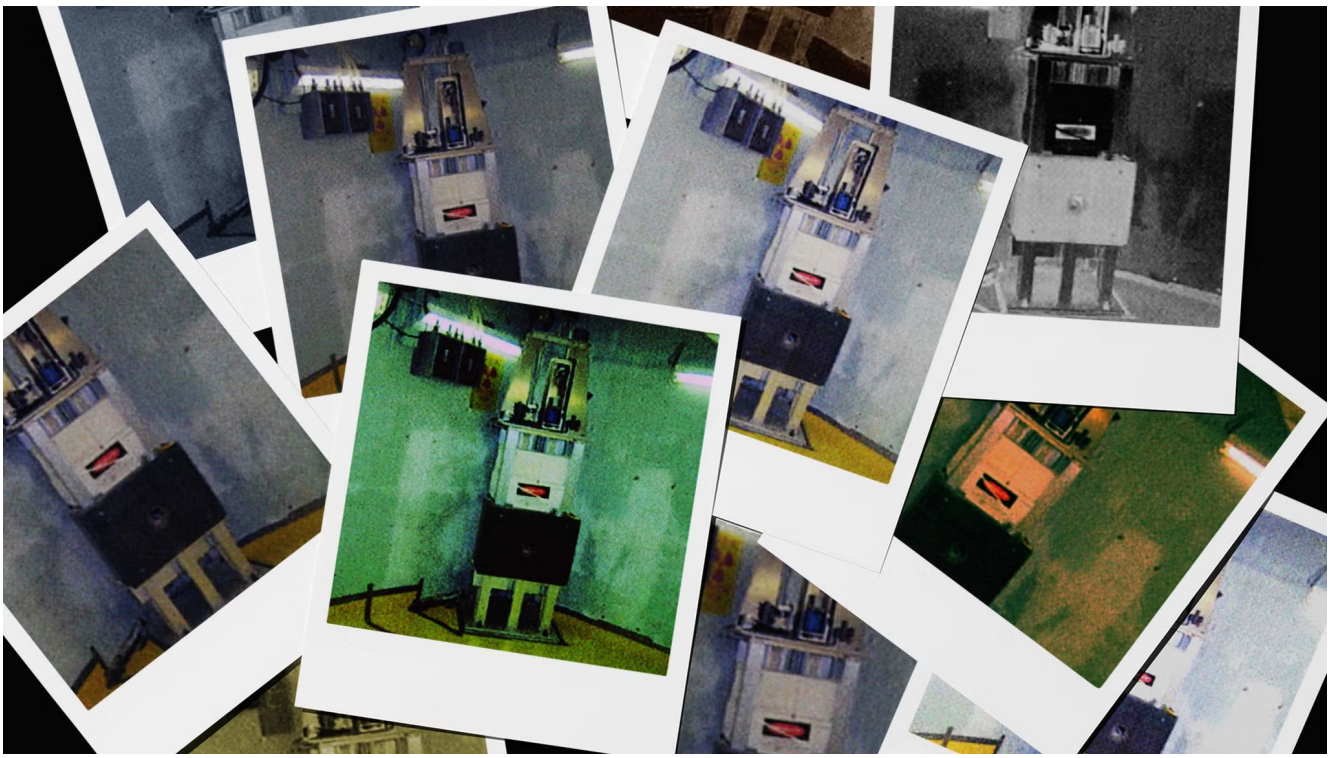
Could natural forces cause this? Sunlight and gravity can nudge orbits, but they usually produce smooth trends rather than sudden jumps in the derived parameters.

Is there any danger to working satellites? If an external craft performed a brief proximity operation, risk depends on distance and control; absent details, the hazard remains unknown but likely low.

Will we ever know who moved it? Maybe. Fresh tracking, independent observations, and — if we're lucky — a quiet acknowledgment could turn speculation into history.

Kodak Ran a Secret Nuclear Device in Its Basement for Decades. It Was a Scientific Marvel.

In the middle of the Cold War, the film company found a surprising way to harness weapons-grade uranium.



In a secured Rochester, New York, office basement, a nuclear device the size of a fridge spent three decades quietly firing off neutrons for Eastman Kodak without a fuss. But after it was shut down and shipped away, an employee mentioned it to a reporter. Word spread, alarms rang in newsrooms, and even CNN jumped in to cover the story: Kodak had been using weapons-grade uranium in the bowels of its labyrinthine research labs.

But the truth about the reactor was stranger, and tamer, than the headlines suggested.

In 1975, Kodak powered up the country's first californium neutron flux multiplier (CFX). Though it couldn't live up to the sci-fi-tinged promise of its name, it leveraged a neat trick of nuclear engineering to provide Kodak R&D with an ample stream of neutrons for materials analysis.

The CFX served two purposes: neutron activation analysis and neutron radiography. The former allowed Kodak to test chemicals for impurities. By bombarding a sample with neutrons, its elements formed radioactive isotopes emitting gamma rays. Researchers could measure the energy levels of the gamma rays to identify exactly what constituted the sample.

The analysis was convenient to have on hand, but the neutron radiography was a superpower for a private company. Though it operates similarly to an X-ray, neutrons interact with nuclei and X-rays interact with electrons. That means while X-rays are powerful tools for examining heavy elements with an abundance of electrons, lighter elements and compounds, like water or film, get washed out in images. Not so with neutrons.

The truly impressive part was how Kodak's machine achieved its stream of neutrons. It harnessed the spontaneous fission of californium-252 (CF-252). The lab-made isotope sheds neutrons like a husky shakes off fur in July. However, this fountain of neutrons was too expensive to be the sole source (today it goes for about $30,000 per milligram). So the CFX's designers looked to a fission standard: highly enriched uranium (HEU).

Neutrons would trickle out of the tiny CF-252 source—about 3.1 milligrams in the device's core—and pass through 52 plates of highly enriched uranium. Behind lead shielding, the neutrons slammed into the HEU atoms to produce unstable nuclei. These often, but not always, broke apart into lighter fragments while also releasing two or three more neutrons. By the time the stream reached the sample port, the flux was up to 30 times greater than from the CF-252 alone.

IF AN X-RAY SHOWS YOU THE CRACK IN A PIPE, NEUTRONS WILL SHOW YOU THE LEAK.

This might appear alarmingly similar to a nuclear reactor at first glance: uranium fuel plates, fission neutrons, heavy shielding. The crucial difference is that the CFX was deliberately engineered to remain subcritical so that each fission produced fewer neutrons than needed to sustain a chain reaction. Without the CF-252 feeding it, the process peters out.

From 1975 to 2006, the CFX chugged along within its two-foot-thick walls and government-approved security protocols. Roughly every seven years, the CF-252 source was replenished. And aside from a license renewal snafu in 1980, the device made no waves until its existence was shared with the local newspaper—it wasn't a secret, just unpublicised.

Unsurprisingly, when news of Kodak's CFX went nationwide in 2012, most outlets focused on the dangers of HEU instead of its prowess for generating neutron flux. Indeed, it's difficult to imagine trusting private corporations with the stuff atomic bombs are made of today. But the CFX was installed at a time of nuclear optimism where it was standard for top-tier universities to run reactors and ambitious companies sought to harness nuclear power.

Within its bunker, the CFX was a tightly-regulated non-threat according to Kodak and officials. The greatest danger came in the 2007 decommissioning. An old CFX is the industrial lab equivalent of an asbestos-wrapped pipe in your basement. It's perfectly safe until you decide to remove it.

While the CF-252 component weighed about the same as a snowflake, the HEU was a more substantial 3.5 pounds. And though it takes roughly 100 pounds of it to build an atomic bomb, the fear is that bad actors would wrangle up enough small lots to create a weapon. Under the scrutiny of the Department of Energy, the plates were carefully transported to a government facility. As a testament to the security involved, no public records state who exactly moved the plates, or how they moved them beyond the safety protocols using tongs and shields made of plexiglass—which is surprisingly adept at slowing neutrons and HEU's alpha radiation.

The real story of Kodak's flux multiplier is less a conspiracy than a technical curiosity. It was an ingenious bit of Cold War-era engineering subject to stringent government oversight tucked under a corporate campus. The building has since been sold off by Kodak and the room long ago declared safe despite a few isotopes activated in the concrete. But it's a reminder that the bleeding edge of technology once was radioactive.

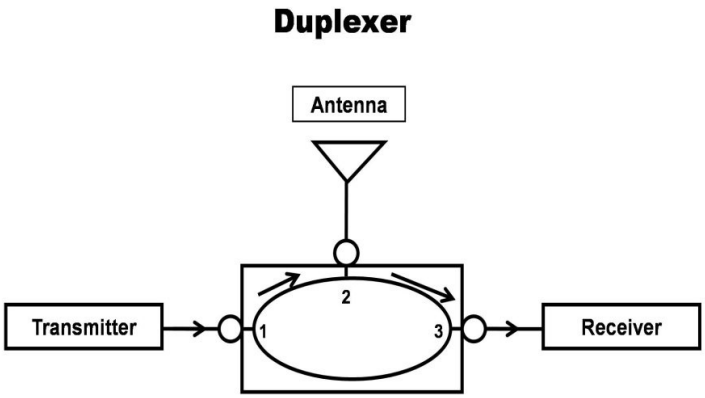
What is the difference between a duplexer and a diplexer?

Ever felt like starting an argument? Just ask the question above in a crowded room, and listen to all the various explications. And the disagreements it will trigger

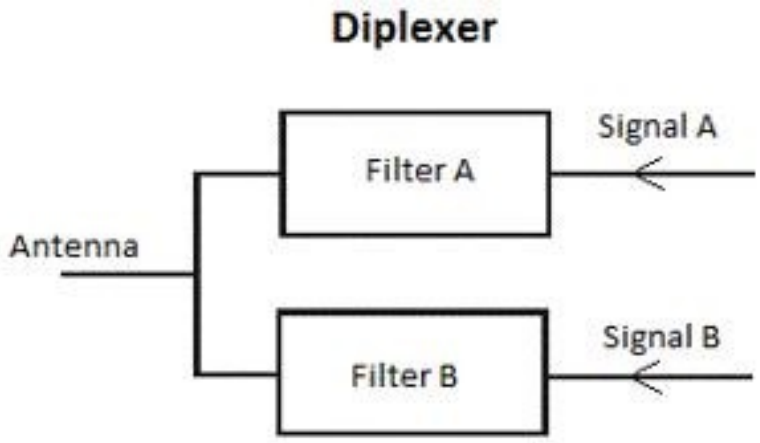
But in reality, The answer is not that complicated. The difference is part purpose and part features.

A duplexer and a diplexer are both RF (Radio Frequency) components, but they serve distinct roles.

A duplexer separates transmit and receive paths through a single antenna, typically based on signal direction, and allows simultaneous communication at the same frequency.



A diplexer, on the other hand, separates or combines signals by frequency, enabling different devices or circuits to share a common channel or antenna for different frequency bands.



Key Differences:

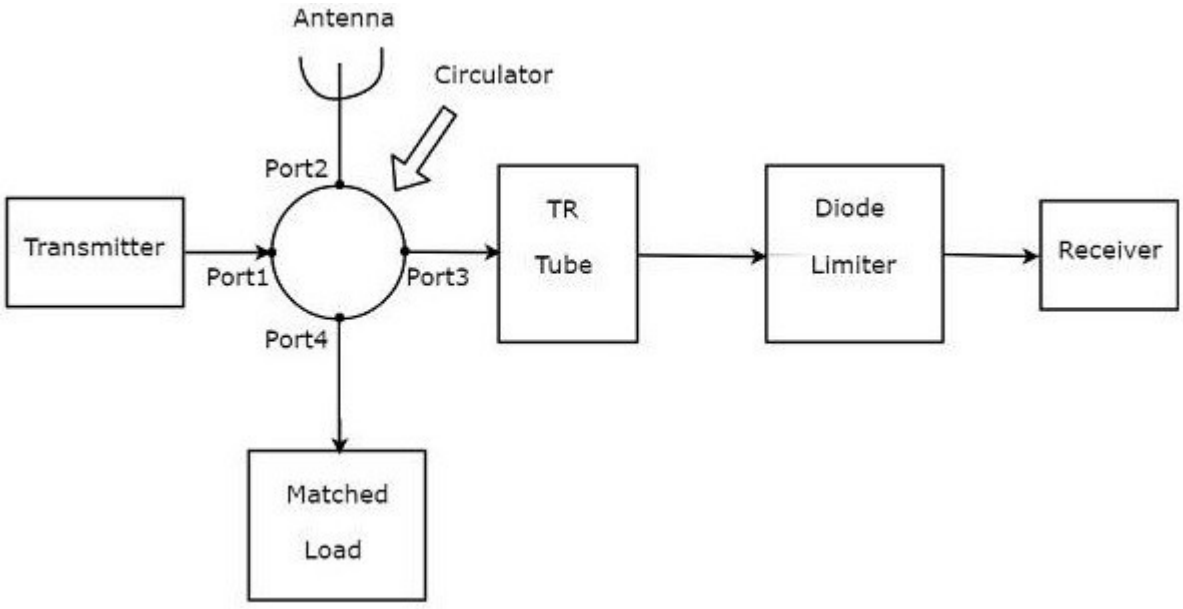
A duplexer enables simultaneous transmission and reception (two-way communication) on the same antenna by isolating the transmit and receive paths, often even at the same frequency.

A diplexer allows the combining or separating of signals at different frequencies, using filters to ensure each frequency follows its correct path, often used to share a common antenna between different systems or frequency bands.

A duplexer works internally through carefully designed filters and, in certain high-demand scenarios, circulators. The main goal is to keep transmit (Tx) and receive (Rx) signals separated, even when both share a single antenna, by allowing only the desired frequencies to pass to each path while blocking or greatly attenuating any unwanted signal from reaching the opposite port.

The heart of most duplexers is a pair of highly selective filters: one for the transmit path and one for the receive path. Each filter typically uses structures like cavity resonators, precisely tuned to their respective frequency bands. Bandpass filters allow only the desired frequency (Tx or Rx) to pass through with minimal loss, while sharply rejecting the other frequency to prevent interference. In cavity-based duplexers, coupling loops and irises control how energy moves within and between cavity elements, ensuring extremely high isolation and low insertion loss. For critical systems, silver-plated and highly conductive materials further decrease resistance and power loss. Tuning posts and fine adjustments are used to set each cavity to the exact operating frequency and notch out unwanted bands, maximising isolation—often more than 70 dB between transmit and receive paths.

Aren't Duplexers always Circulators?



No – But in cases where transmit and receive frequencies are nearly identical, simple filters may not provide enough isolation. Here, circulators—a type of non-reciprocal RF device—are used.

A circulator directs RF energy in a predetermined sequence (e.g., port 1 to port 2, but not from port 2 to port 1), ensuring that transmitted energy flows only toward the antenna and received energy flows only toward the receiver, preventing feedback or interference

Circulators are common in microwave and radar duplexers where frequency separation is minimal but isolation remains critical.

Duplexers thus use highly tuned filters or, when necessary, circulators to direct and isolate transmit and receive signals. These internal components allow simultaneous two-way communication over the same antenna, delivering high reliability and performance in demanding radio, cellular, and radar systems.

This mean both Diplexers and Duplexers are filter devices used to connect 2 devices to a single antenna, but for different reasons. The Diplexer requires frequencies to be widely separated and does little to prevent power entering, and potentially de-sensitising the opposing port. While Duplexers are designed to separate power, and can have much closer frequencies.

They may at first seem the same, But you can't swap one for the other.

Typical Applications:

Duplexers are widely used in devices or systems that require simultaneous transmit and receive signals, such as radars, repeaters, and mobile phone base stations, which operate at nearly the same frequency using one antenna.

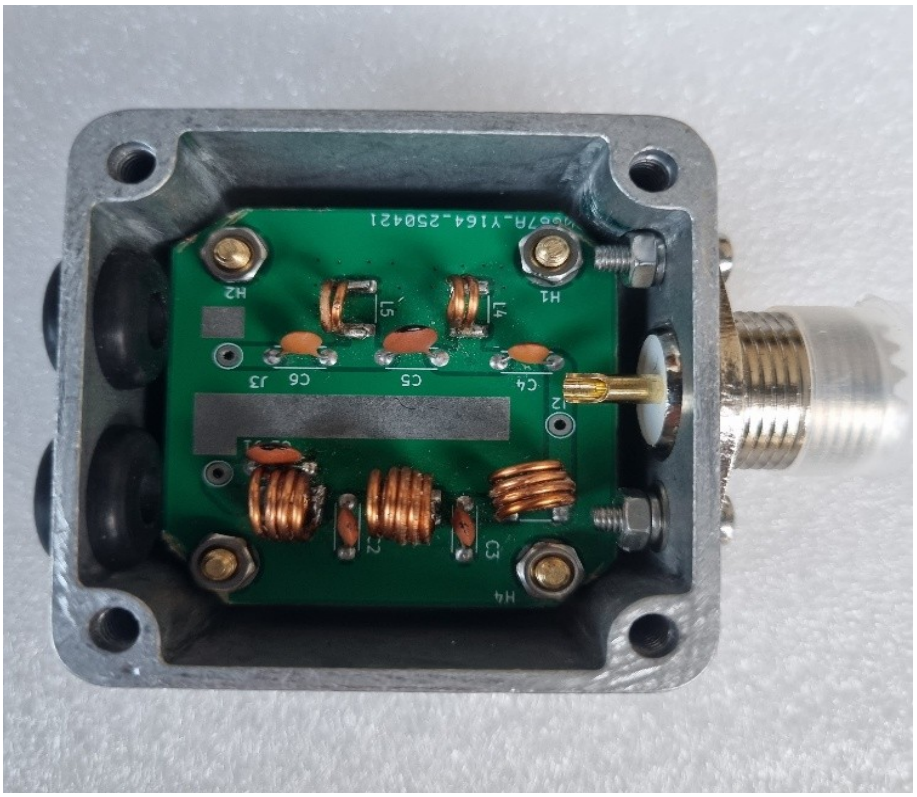
Diplexers are common in situations where two signals at very different frequencies need to be combined onto or separated from a single path, such as combining VHF and UHF signals on a TV antenna or allowing different wireless standards (like GSM and LTE) to share a base station antenna

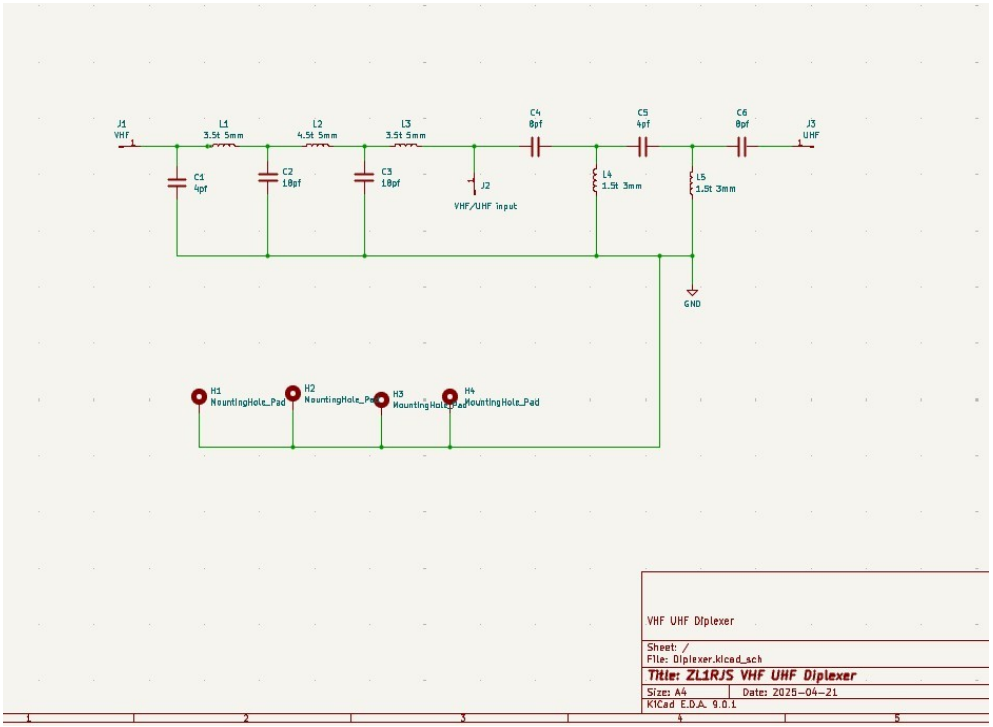
Summary Table

Feature	Duplexer	Diplexer
Main function	Separates transmit/receive by direction	Separates/combine signals by frequency
Common use	Two-way radios, radars, cell repeaters	TV antennas, multi-band communication
Frequency	Often same or very close frequency	Signals at widely separated frequencies
Ports	3 (Tx, Rx, Antenna)	3 (Low, High, Common/Antenna)

Understanding this difference can help you select the right component for your RF or communications system design.

But If you want to build a diplexer to allow UHF and VHF radios to share an antenna, We still have some stock for you to build your own.





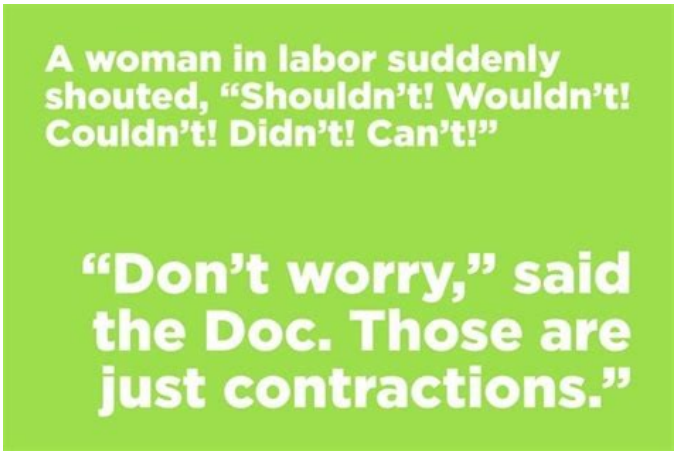
Smile and Wave Boys

A Sorry Fable:

Once, a Dog found a delicious piece of meat and carried it home in his mouth, eager to enjoy it all alone. Along the way, he had to cross a stream using a narrow plank. As he walked, he glanced down and spotted his own reflection in the water.

Surprised, he mistook his reflection for another dog holding a juicy piece of meat. Wanting that piece too, he greedily snapped at the shadow in the water. Sadly, as he opened his mouth, the real piece of meat fell into the stream and vanished.

The lesson? Don't be so eager for what you don't have that you lose what you do. It's like trying to grab a shadow – you might lose what's really important.



• What do you call an apology written in dots and dashes?

Re-Morse code.

• What did the buffalo say when his son left for college?
Bison.

• What did the pirate say when he turned 80?
Aye matey.

• What did 0 say to 8?
"Nice belt."

• What did the cake say to the fork?
You want a piece of me?

• A bear walks into a bar and says, "Give me a whiskey and … cola." "Why the big pause?" asks the bartender.
The bear shrugged. "I'm not sure; I was born with them."

Heard Around the Scenes

The dual conference themes will commemorate our history and explore our future. The organising team are now seeking offers to present a talk at conference and also ideas of what talks you would like to hear. Please send your offers and ideas to the conference secretary at zl1aox@gmail.com

ZL100C Callsign.

David and Rob have been busy working the Special ZL100C callsign to celebrate 100 years of the New Zealand Association of Radio Transmitters. David is working 10 and 15 Metres primarily, while Rob has been running a special FT8 station.

If you would like to assist with other Bands or Modes, please contact David ZL1DK to arrange a schedule for your band and mode.

Christmas Dinner

Franklin Amateur Radio Club extends an invitation to members of Papakura Radio Club to an end-of-year dinner.

We have booked Waiuku Cossie Club, Friday 5 December for a 6.30 pm Xmas dinner.

We sign in on a sheet at the door.

We buy our own food or drinks paying as we order, telling them we are radio club.

There will be a blackboard menu plus buffet.

To book a seat, Please let Ian ZL1AOX know so we can confirm the numbers with Franklin.
These events are always popular, and there will me many familiar faces to catch up with. Hope to see you there.

Why does this sound familiar?

The Warsaw Radio Mast, located near Konstantynów, Poland, was the world's tallest structure at 646.38 meters (2,120.67 ft) from its completion in 1974 until its collapse on 8 August 1991.

It was a mast radiator insulated from the ground, designed to broadcast long-wave radio signals globally, including to remote regions like Antarctica.

The collapse occurred at 16:00 UTC during maintenance work to replace frayed guy wires.

One of the main cables was disconnected before temporary replacements could be secured, and a gust of wind caused the unmoored tower to twist, pulling loose the other guy wires.

The mast first bent at approximately half its height and then snapped, collapsing in less than a minute. The incident resulted in the death of one worker , and the mobile crane belonging to Mostostal Zabrze was destroyed.

The helix building and transmitter building were spared damage, and the transmission line remained intact, though it was later dismantled.

The construction coordinator and division chief were found liable and sentenced to prison, with one receiving a two-year sentence and the other a 2.5-year sentence, later reduced to six months.

Plans to rebuild the mast were abandoned due to protests from local residents concerned about safety. The Polish broadcaster subsequently switched to using the smaller Raszyn transmitter mast nearby.

The collapse marked the end of an era, as the mast had stood as the tallest man-made structure for 17 years, surpassing the previous record holder, the KVLY-TV mast in North Dakota, by 36 meters. It remained the tallest structure until the completion of the Burj Khalifa in Dubai in 2010

Anyone recall a Certain Power line tower that had all four bolts removed at once for maintenance, that toppled and left Northland without power?

The next NZART broadcast is on the 30th November 2025 at 8:00 pm (replayed at 9:00 pm) and will be posted on the website about the same time.

The HF broadcast is made on 3900 KHz, LSB at the top end of the 80m band. It will be rebroadcast in the Auckland area on the 6625 Repeater, and is available on the NZART website: NZART-Official Broadcast

SOME NETS – FOR WHEN YOU ARE LOOKING FOR SOME COMPANY

Day	Time (NZST)	Freq (MHz)	Group
Sunday	08:00	3.750	Southern Net
	08:00	**146.625**	**Br 65 – Papakura Net**
	09:00	3.700	Br 10 - Franklin
	09:00	**3.755**	**Br 65. Papakura.**
	09:30	146.900	Br 10 – Franklin ZL1SA
	19:00	146.700	Auckland YL Net
	19:45	145.575	Thames radio club ZL1DF
	20:00	3.710	Br 42. Titahi Bay
	20:15	146.625	Sunday News and Net (Auckland)
	21:30	146.900	Franklin Net (ZL1-SA)
Monday	11:30	3.850/7.125	Br 12. Hamilton
	19:30	3.757	Br 12. Hamilton
	20:00	Echolink	Basic Morse (ZL1PX)
	20.00	3.540	CW Practice Net
	20:00	3.605	Br 80. Hibiscus Coast
	20:30	3.870	O.T.C (Old Timers Club)
Tuesday	09:00	7.096	Ex Post Office Techs
	19:30	3.690	QRP ZL3TK
	20:00	3.581	CW improvers Net
	20:00	7.025 – 7.040	VK CQ QRS Group (CW)
	21:00	1.850	160m Net
Wednesday	11:30	7.125	SPAM Net
	18:00	14.049	VK CW NET
	19:30	146.700	ZL1AB Net
	20:00	3.660	Geek Net
	20:00	3.645	Br 02. Auckland
	20:30	146.525	W.R.S.C
Thursday	09:00	7.096	Ex Post Office Techs
	18:00	7.0674	SAS Net (CW)
	20:00	3.615	Br 89. REG Net
	20:30	3.696	ZL1OA
	20:30	3.666	LF Net ZL2CA
	20:00	3.690	ZL QRP SSB Net
Friday	20:30	3.850	SPAM (AM Mode)
	20:30	3.650	W.S.R.C.
	20:30	3.560	Digital Modes Net
Saturday	10:30	28.530	10-10 Down Under (AK Based)
	19:30	3.650	Christian Fellowship
	20:30	3.600	Br 62. Reefton/Buller
Daily or Other	07:30	3.696	ZL2OA
	08:30	3.730	ZL3RP
	15:00	14.300	Pacific Seafarers
	17:30	3.760	Home Brew
	05:00 Zulu	14.183	ANZA DX Net
	18:00	7.115	VK7OB
	19:30	3.720	ZL1MO
	18:30	3.766	ZL3LE
	08:00	3.730	ZL3DAC
	20:30	3.725	ZL2HN / ZL4RF
	21:00	3.677	Counties Net ZL2MA
	21.00	3.535	New Zealand Net (CW)

Our desire is that this will be a living list,
Please email zl1nux@outlook.com any updates, deletions or changes required.

Papakura Radio Club Inc.
Branch 65 NZART Club Directory
Wellington Park, 1 Great South Road.
PHONE 09 296 5244
Westpac 03-0399-0019896-00
Club website: http://www.qsl.net/zl1vk Club email: zl1vk.club@gmail.com

President ZL1NUX Gavin Denby 021 459 192
Vice President ZL1BNQ Richard Gamble 021 729 270
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
ZL4MDE Mike Enderby 021 529 895
Zl1KIM Kimi Nooroa
AREC Section Leader ZL1BNQ Richard Gamble 021 729 270
CD Liaison ZL1AOX Ian Ashley 021 198 1810
Newsletter Editor ZL1NUX Gavin Denby 021 459 192
Hall Custodian ZL1AOX Ian Ashley 021 198 1810
Newsletter. Contact: zl1nux@outlook.com

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 $25.00 Family Membership and newsletter $40.00
Bank Account number: 03-0399-0019896-00

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

146.625 MHz Sunday at 8.00 am. Controller ZL1NUX, Gavin Denby. If the repeater is not available, listen 146.475MHz simplex.

3.755 MHz Sunday at 9.15 am. Controller ZL1BNQ Richard Gamble. (Linked to 146.675 & 438.775)