

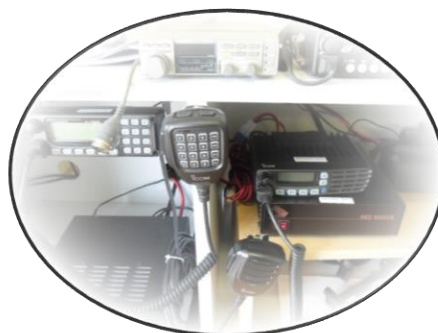


The Official Newsletter of
the
**PAPAKURA RADIO
CLUB INC.**

June 2024



The Shortest Day is almost here



CONTENTS ...

CONTENTS	2
CLUB ACTIVITY	3
DX CALENDAR & FEATURED DX	4
CONTESTS	7
WILL WE SEE ANOTHER SET OF AURORAS?	8
IT'S A GOOD MONTH TO WATCH ROCKETS	10
RAMBLINGS FROM THE EDITOR'S DESK	13
ICOM HINTS AT NEW 60TH ANNIVERSARY X60 PRODUCT	17
HAVE YOU HEARD ABOUT MESHTASTIC?	19
JUST FOR A LAUGH	21
NEW ZEALAND STRAIGHT KEY NIGHT	22
HEARD AROUND THE SCENES	24
NETS LIST	25
CLUB CONTACT INFORMATION	26

This Month's Meeting:

This month's general meeting will be normal business, followed by a report from the NZART conference on Christchurch.

Hope to see you there.

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

Alternatively ask z11nux@outlook.com for the teams link, and you can join us from home.

March Dates:

Wednesday 5 th	General Meeting – Conference Report
Wednesday 12 th	Activity Night
Wednesday 19 th	Committee Meeting
Wednesday 26 th	Project Night



DX CALENDAR MAY 2024

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
9M4JOTA				KH0N								T88PB				K8K													
VP6DE									VK9LA									ES/W6JZT											
							5U5K													ES/W8HC									
V47IA												VP5/AA5UK																	
Z81D														IG8NQJ/1D1															
T5/IT9HRK														5H3DX															
					D44TWO																								
				FS/K9EL																									
OX3LX																													
FT4GL																													
TR8CR																													
FK/LZ1GC FK/LZ5OZ																													
RI1ANE																													
VK0DS																													

Click any link above for details on the expedition

Featured DX - T88PB Koror Island Palau

T88PB will be active again from [Koror Island](#), IOTA OC - 009, Palau, 15 - 17 June 2024.

He will operate on HF Bands.

QSL via JA0JHQ direct.

Address for direct QSL:

NOBUAKI HOSOKAWA, 1458-25 OKAGAMI ASAO-KU, KAWASAKI, KA, 215-0027, Japan.

Koror is one of those few islands around the world, which is less popular to the tourists, yet as exotic as other popular, picture-perfect tourist destinations in the planet. It is the primary commercial center of the Republic of Palau and comprises of several islands of which, the Koror Island is the most prominent one. Being a home to mere 14,000 people (as of 2004), the economy of the island is mostly based on tourism.

People, who would love to enjoy some quality time with their family in nature's own lap, and experience the real meaning of 'Peace', should target this island as their upcoming tour destination.

Travel to the village of Ngermid to hear the sad story of the Mother and Child stone. Legend says that a mother along with his kid was turned to stone, after the mother took a glimpse inside the men's house in the village, which was considered to be forbidden. It is a common belief that the Hotel Nikko Palau, which is now defunct, was shut down after the guests claimed that they saw the ghosts of Japanese soldiers, who were killed in World War II.



Enjoy Underwater Life at the Palau Aquarium

Once you have completed your spine-chilling journey to the Ngermid village, it is time to enjoy the vibrant life that lies underwater at the Palau Aquarium. This aquarium is originally a part of the Pacific International Coral Reef Center, a research complex funded by the Japanese. This place helps people gather knowledge on the coral reef ecosystem of Palau and features 17 sections with different habitat themes.

Visit Badrulchau, a Historic Place

This is the place with rows of massive monoliths made of basalt and is situated towards the north of Babeldaob. No one knows about the origin of these stones, some of which are as heavy as 4500kg. The hillsides surrounding the area are terraced and have steps like pyramids. Research has shown that the construction work took place in between AD 100 and 1600. Sounds mysterious, doesn't it?



Experience 'Peace' at Peleliu Beach

Finally, you are at a place, which can easily win the contest for the most peaceful place on the earth. People, who have been at the Peleliu Beach, have reported that they often felt that there was nothing on the planet except the blue waves around them. So, get ready to hear the silence.



UPCOMING CONTESTS

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

Start - Finish		Date-Time	Date-Time	Bands	Contest Name	Mode	Exchange	Sponsor's Website
Date-Time	Date-Time							
1	0000	2	2359	28	10-10 Int'l Open Season PSK Contest	Dig	Name, SPC, mbr	www.ten-ten.org
1	0200	1	1459	1.8-28	Tisza Cup CW Contest	CW	RST, CQ zone	www.tiszacup.eu
1	0600	1	0800	7,14	Wake-Up! QRP Sprint	CW	RST, serial, suffix of previous QSO	qrp.ru
1	1300	2	0100	1.8-28, 50,144	Kentucky QSO Party	CW Ph Dig	RS(T), KY county or SPC	www.kyqsoparty.org/rules
1	1300	2	1300	50	UKSMG Summer Contest	CW Ph Dig	RST, serial, 6-char grid	uksmg.org
1	1500	2	1459	1.8-28	IARU Region 1 Field Day, CW	CW	RST, serial	www.darc.de
1	1500	2	1500	1.8-28	RSGB National Field Day	CW	RST, serial	www.rsgbcc.org
1	1800	2	2359	1.8-28,50	ARRL Int'l Digital Contest	Dig (no RTTY)	4-char grid	contests.arrl.org/dig
3	0000	3	0100	1.8-28	K1USN Slow Speed Test	CW	Max 20 WPM; name, SPC	www.k1usn.com/sst.html
3	1300	3	1400	1.8-28	ICWC Medium Speed Test	CW	Name, serial	internationalcwcouncil.org
4	0000	4	0200	3.5-28	ARS Spartan Sprint	CW	RST, SPC, pwr	arsqrp.blogspot.com
5	0230	5	0300	1.8-14,21	Phone Weekly Test	Ph	Name, SPC	www.perluma.com
5	1700	5	2100	144	VHF-UHF FT8 Activity Contest	FT8	4-char grid	www.ft8activity.eu
6	0000	7	0300	7	Walk for the Bacon QRP Contest	CW	Max 13 WPM; RST, SPC, name, mbr or pwr	qrpcontest.com
6	1800	6	2200	28	NRAU 10m Activity Contest	CW Ph Dig	RS(T), 6-char grid	nrau.net
6	2000	6	2200	1.8-28,50	SKCC Sprint Europe	CW	RST, SPC, name, mbr or "none"	www.skccgroup.com
7	0145	7	0215	3.5-28	Weekly RTTY Test	Dig	Name, SPC	radiosport.world/wrt.html
7	1900	7	1959	3.5,7	HA3NS Sprint Memorial Contest	CW	RST, mbr or "NM"	radioamator.honlapepites.hu
8	0000	9	1700	3.5,7,28	Batavia DX Contest	Ph	RS, 2-char province code	batavia.orarilokajakut.or.id
8	0000	8	2359	1.8-28	VK Shires Contest	CW Ph	RS(T), VK shire, or CQ zone	www.wia.org.au
8	1100	8	1300	14,21	Asia-Pacific Sprint, SSB	Ph	RS, serial	jsfc.org
8	1200	9	1200	3.5-28	Portugal Day Contest	CW Ph	RS(T), CT district or serial	portugaldaycontest.rep.pt
8	1200	9	2359	1.8-28,50	SKCC Weekend Sprintathon	CW	RST, SPC, name, mbr or "none"	www.skccgroup.com
8	1400	8	1800	144,432	AGCW VHF/UHF Contest	CW	RST, serial, pwr, 6-char grid	www.agcw.de
8	1500	9	1500	3.5-28	GACW WWSA CW DX Contest	CW	RST, CQ zone	www.gacw.ar
8	1600	9	1600	50	REF DDFM 6m Contest	CW Ph	RS(T), serial, 4-char grid	concours.r-e-f.org
10	0000	10	0200	1.8-28	4 States QRP Group Second Sunday Sprint	CW Ph	RS(T), SPC, mbr or pwr	www.4sqrp.com
10	1900	10	2030	3.5	RSGB 80m Club Championship, Data	Dig	RST, serial	www.rsgbcc.org
12	1700	12	2100	432	VHF-UHF FT8 Activity Contest	FT8	4-char grid	www.ft8activity.eu
15	0000	15	2359	3.5-28	Pajajaran Bogor DX Contest	Ph	RS, serial	www.pbdx-contest.id
15	0000	16	2359	1.8-28	All Asian DX Contest, CW	CW	RST, 2-digit age	www.jarl.org
15	0000	16	2359	50	SMIRK Contest	CW Ph	4-char grid, mbr (optional)	smirk.info
15	1400	16	1400	50	IARU Region 1 50 MHz Contest	CW Ph	RS(T), serial, 6-char grid	www.iaru-r1.org
15	1400	16	1400	50	LZ International 6-Meter Contest	CW Ph	RS(T), serial, 6-char grid	www.radioclub-troyan.bg
15	1500	16	1500	1.8	Stew Perry Topband Challenge	CW	4-char grid	www.kkn.net/stew
15	1600	16	0400	3.5-28	West Virginia QSO Party	CW Ph Dig	RS(T), WV county or SPC	www.qsl.net/wvsarc
16	0000	16	2359	1.8-28,50	Feld Hell Sprint	Dig	Mbr, SPC, grid	sites.google.com/site/feldhellclub
16	0800	16	1400	50	WAB 50 MHz Phone	Ph	RS, serial, WAB square or country	wab.intermip.net/Contests.php
16	1200	16	1300	7	SARL Youth QSO Party	Ph	RS, age	www.sarl.org.za
16	2300	17	0100	1.8-28	Run for the Bacon QRP Contest	CW	RST, SPC, mbr or pwr	qrpcontest.com
17	1900	17	2030	3.5-28	RSGB FT4 Contest	FT4	Signal report	www.rsgbcc.org
19	1700	19	2100	1.2G	VHF-UHF FT8 Activity Contest	FT8	4-character grid	www.ft8activity.eu
19	1900	19	2030	3.5	RSGB 80m Club Championship, CW	CW	RST, serial	www.rsgbcc.org
20	0000	21	0300	14	Walk for the Bacon QRP Contest	CW	Max 13 WPM; RST, SPC, name, mbr or pwr	qrpcontest.com
20	1900	20	2000	3.5-14	NTC QSO Party	CW	Max 25 WPM: RST, mbr, or "NM"	pi4ntc.nl/ntcqp
22	1200	23	1200	1.8-28	His Maj. King of Spain Contest, SSB	Ph	RST, EA province or serial	concursos.ure.es
26	0000	26	0200	1.8-28,50	SKCC Sprint	CW	RST, SPC, name, mbr or "none"	www.skccgroup.com
27	1900	27	2030	3.5	RSGB 80m Club Championship, SSB	Ph	RS, serial	www.rsgbcc.org

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

WILL WE SEE ANOTHER SET OF AURORAS?

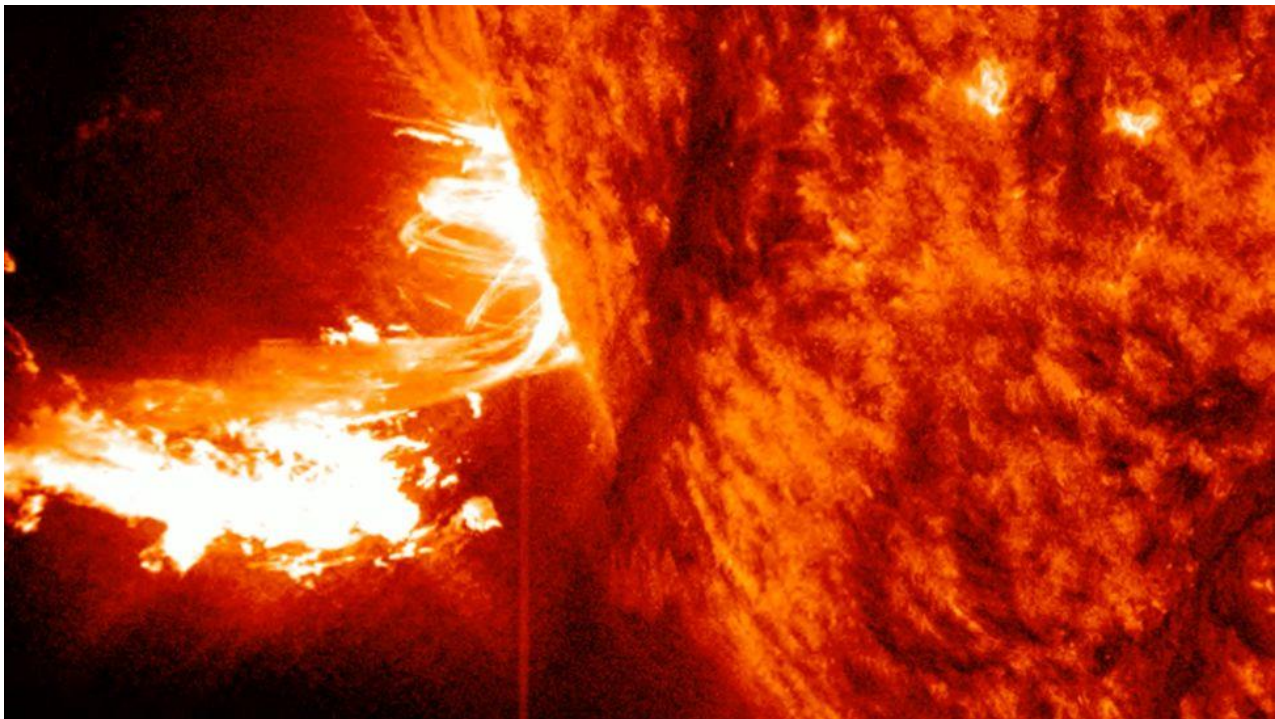
Sadly, the Parade of Planet, currently visible in the Northern hemisphere, we may get a second chance to see some aurora australis in the early part of the month

The sunspot AR 13664, which has been renamed AR 13697, is currently moving in the direction of Earth and has already exhibited additional flares while passing along the side of the visible solar disk, away from our planet.

In a remarkable display of solar activity, solar active region AR 13664 unleashed a staggering 12 X-class solar flares across a span of six days earlier this month.

Because of the first set of flares, a chain reaction of Earth-directed coronal mass ejections (CMEs) occurred. These CMEs, which involve the ejection of plasma and magnetic field from the sun, ultimately caused a G5 geomagnetic storm to hit the earth.

The occurrence of this geomagnetic storm, which was the first of its size since 2003, led to the phenomenon of auroras being visible in many parts of the world. On May 14, on its last day before rotating behind the western edge of the sun, the active region produced the largest solar flare since September 2017 — clocking in at an X8.79.



With the flare now in View, its 2 week transit over the rotation surface of our sun, will bring the flare into an earth facing direction around the 3rd to the 6th of June. I during this period we see a large flare, or multiple smaller flares, causes coronal mass ejections (CMEs) than aurora are again possible.

The downside is that if we get CME, then the flare hat preceeds it is also likely to generate short-term radio blackouts. These are temporary disruptions to radio-wave propagation on the sun-facing side of Earth, lasting only an hour or so. But for that period, all HF comms on the sun facing side of the earth will be disrupted.

With fewer X-class flares coming from AR 13697 than in its previous rotation, does this decrease our odds of another strong auroral display? Somewhat, but it is more complicated than that.

The May 2024 geomagnetic storm was so strong due to the subsequent impact of multiple CMEs in quick succession. If their arrival were isolated from one another, the impact of each individual CME would have been less noteworthy. If the current trend of fewer X-class solar flares continues, a similar bombardment by multiple eruptions is less likely. However, with optimum conditions, only one flare is needed to produce the sufficiently dense, fast, and perfectly positioned/oriented CME needed to repeat a similar geomagnetic storm.



The May 2024 geomagnetic storm triggered the Aurora Australis, also known as the Southern Lights, to glow on the horizon over the waters of Lake Ellesmere on the outskirts of Christchurch, New Zealand on May 11, 2024, in this photo by AFP and Getty photographer Sanka Vidanagama. (Image credit: SANKA VIDANAGAMA/AFP via Getty Images)

As AR 13697 rotates further into view, we'll have a better idea of its flaring odds. The magnetic field is the primary driver of solar flares, and the more magnetically complex an active region, the higher the likelihood of strong flares.

The May 2024 aurora event was truly a rare occurrence, as the first G5 geomagnetic storm since 2003. Even if high activity continues from AR 13697, the perfect alignment of conditions needed to reach a G5 level will be tough to repeat again. Although a G5 is not likely (but not impossible) to happen again this month, G3-4 conditions would still provide a view of the aurora to millions at higher latitudes.

This is also not our last chance. As solar activity continues to rise to its expected peak in late 2024-2025, we can look forward to many more strong geomagnetic storms. Although another G5 storm is not guaranteed during this solar maximum, it's certainly possible.

IT'S A GOOD MONTH TO WATCH ROCKETS

While we won't be seeing the "parade of planets" that the northern hemisphere will see, June is a wonderful month to watch some on-line launch videos, and see rockets launching.



Following a lengthy series of delays and two unexpected launch cancellations, Boeing is now placing their hopes on the third attempt of the test flight for their capsule. This capsule was designed to compete with SpaceX's dragon capsule in terms of both cargo transportation and Astronaut rotations on the ISS, but while Starliner has yet to be certified for passengers, SpaceX Dragon has already launched to the ISS over 20 times, with 8 NASA Flights, 4 commercial crews, and many cargo missions.

Boeing was always favoured to be the unofficial winner of NASA's Commercial Crew Program. They were supposed to beat SpaceX to space by a long shot because of their decades of experience with the Shuttle and ISS. However, Boeing is still trying to get its first crewed test flight off the ground. SpaceX is so far ahead that Starliner's future as a commercial competitor is not even talked about.

Since 2020, SpaceX has expanded its fleet of Crewed Dragon spacecraft from one to four and tallied up 10 missions. These flights included many firsts like Inspiration4, the first fully commercial spaceflight, and Axiom-1, the first fully commercial mission to the ISS. Several more Axiom flights are planned as well as commercial missions from Polaris, the successor of Inspiration4. Meanwhile, Boeing is just trying to complete its original NASA-paid flights.

But assuming there are no further delays, and they are still good to ply with their helium leak (no not fixed yet) then we may see a launch on Wednesday June 5 14:52 GMT. NASA will be streamed live on NASA TV.

The following Day June 6 SpaceX will attempt a fourth Test flight of the Starship launch vehicle.

Starship's third flight test made tremendous strides towards a future of rapidly reliable reusable rockets. The test completed several exciting firsts, including the first Starship re-entry from space, the first ever opening and closing of Starship's payload door in space, and a successful propellant transfer demonstration. While the last test, did not achieve re-entry, the flight provided valuable data for eventual ship-to-ship propellant transfers that will enable missions like returning astronauts to the Moon under NASA's Artemis program.

In addition, cameras on the outside of starship, linked to the Starlink satellites gave us incredible images of the plasma on the vehicle's heat shield during the re-entry attempt



The fourth flight test will shift focus from achieving orbit to demonstrating the ability to return and reuse Starship and Super Heavy. The primary objectives will be executing a landing burn and soft splashdown in the Gulf of Mexico with the Super Heavy booster, and achieving a controlled entry of Starship.

The launch will be streamed live on Both SpaceX's website www.spacex.com, and on X (formerly known as twitter)

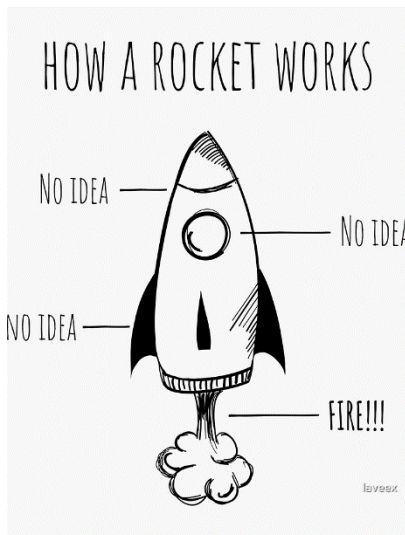
Other Sites, Such as NASA Spaceflight will stream the launch on Youtube:

<https://www.youtube.com/watch?v=mTkHv4fvOgA>



Starship and the Super Heavy booster make up the largest and most powerful space vehicle to ever fly. Given the progress made on the first 3 flights of starship, and the superheavy booster, this could be a major milestone in the development of vehicles needed to achieve a human presence on the Moon, and then on Mars. In Elon Musk's own words, Success is not a certainty, but excitement is guaranteed.

One wonders ... If Starship Launched during an Aurora, what would the re-entry images from the on-board cameras look like?



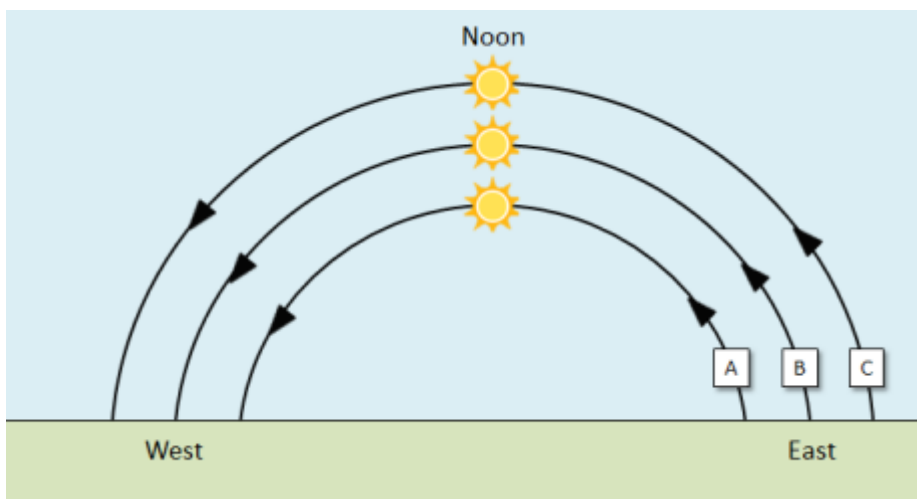
RAMBLINGS FROM THE EDITORS DESK

May has passed, and we have officially arrived at the season known as winter. And are now rapidly approaching the shortest day of the year

The winter Solstice will occur on Friday 21 June ... and for reasons that make no sense to me, The time of this event is at 8:50am. So is it a day, or an event?

In terms of daylight, this day is 5 hours, 4 minutes shorter than the December solstice. In locations south of the equator, the shortest day of the year is around this date.

Because of the way the Earth is tilted about its axis, the length of the day changes through the year. On June the 21st the Southern Hemisphere will be tilted furthest away from the sun and so it will be the shortest day of the year and the sun will appear at its lowest point in the sky. This low point will be at 8:50am, at least if you are in Auckland



The image above shows the path of the sun across the sky during A) the winter solstice, B) at the equinoxes, and C) during the summer solstice. There is more information about solstices and equinoxes can be found in the blogg post <https://blog.metservice.com/equinox> .

The earliest sunset is on 12 June or 13 June. The latest sunrise is on 29 June.

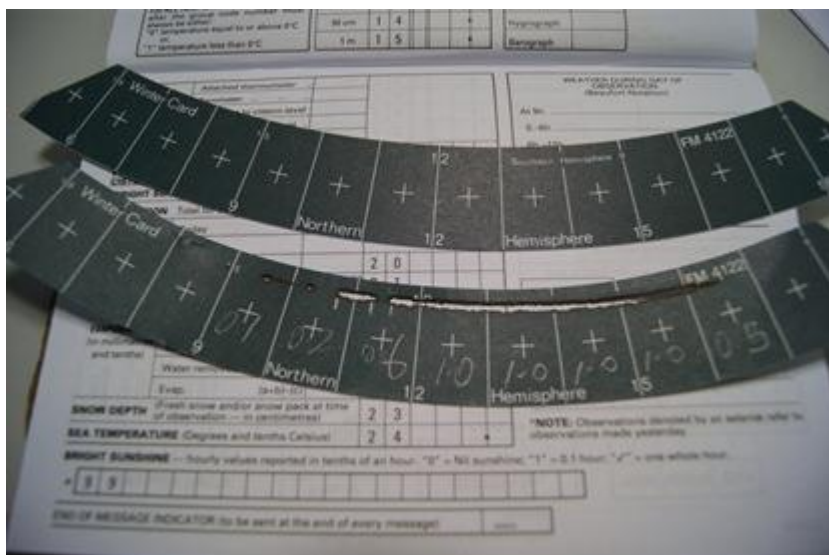
How does Metservice measure how much sunshine there has been?

MetService uses a combination of both automatic and manual observations to calculate the amount of sunshine that makes it through the clouds to the ground. The sensors at automatic weather stations use light-sensitive electronic detectors to accurately measure the amount of incoming radiation from the sun.

The measurement is given in scientific units of Watts per square metre (W m^{-2}). Manual stations historically use a sunshine recorder, and these observations were still made at the Wellington and Christchurch offices of MetService until 2020. Additionally, sunshine recorder information is collected by observers at other stations and passed on to the forecasters. This Campbell Stokes sunshine recording device used to sit on top of the MetService weather office in the middle of the Wellington Botanical gardens.



It is a relatively simple piece of equipment consisting of a large glass sphere and a metal frame that holds a weather resistant cardboard strip. The sphere acts like a magnifying glass and focuses sunlight into a point. If there is enough sunlight the focused point will be hot enough to burn a hole in the piece of card. The picture below shows an example of the card record with holes burnt when there was enough sunshine.



In the southern hemisphere we read the card right to left. Each of the white lines marks a whole hour. By measuring the amount of burning on the card we can calculate how much sunshine there has been. In this case, it was a sunny morning but cloudier in the afternoon.

So there we have it, The science of the solstice, But this is not all it means to some,

Throughout [history](#), societies across the world have held festivals and ceremonies marking winter solstice, the day of the “sun’s rebirth.” Most often, winter solstice celebrations honored the symbolism of [fire and light](#), along with life, death, the rising sun, and the moon. [Saturnalia](#), for example, was an ancient Roman pagan festival dedicated to honoring the sun god Saturn through offerings and gift-giving. Another tradition that we still hear about today is [Yule](#) (or Yuletide).

While ancient rituals, Might seem irrelevant in the modern scientific age, the calls to reconnect to “The natural world through has re-emerged in the form of modern “Wellness” Teaching. We are encouraged to:

1. **Consider practicing a pagan yule candle tradition (a tradition with European roots).** Create an altar with items that bring you joy and peace, and surround it with candles. Light the candles as a symbol of the sun’s ability to give us both life and light.
2. **Wake up early on the day of the winter solstice to watch the sunrise.** Close your eyes, and feel the sun’s warmth on your face. Observe how the sun lights up the world around you. Bring a journal and write down any thoughts that come to mind.
3. **Create a traditional winter feast with warming foods to eat on the night of June 21.** Have fun creating a meal that warms and nourishes the body.
4. **Draw a winter solstice bath,** adding citrus essential oils to symbolize the energy of the sun.
5. **Create something handmade that honours the sun or the natural world,** such as a wreath from what you have around your house or backyard. Paint or draw the sun. Grab an instrument you haven’t played in a long time and write a song; then share it with loved ones.

These were all suggested, (at great expense I’m certain) by a government department, with whom I deal, and these were then re-circulated by our HR department through a series of teaching sessions.

It was at one of these, right after the compulsory “Karakia” that a gentleman in the group asked the most profound question I have ever heard. He asked, very politely, “Can you tell me which god you are praying to?”

There was a moment of confused silence, followed by a mention of „, well I don’t know, I guess whatever god you are comfortable with. ... Umm, I never thought about it.

“But if we are to agree with each other, and share this “Prayer” should we not all be in agreement?”

It was the last time the karakia was “compulsory”. (sadly though, not the last time I have had to sit through the boring meetings)

There is a story of two sisters, who were preparing a meal, A lamb leg was to be roasted, and as the leg was prepared, the older sister, Took the end of the leg bone and broke it, Tying the broken end, back to the rest of the leg. The younger sister watched in amazement, “You do that too?” She asked, “Of course,” the older said, “After all, Mum always did.” They then discussed why they did it. Was it to make the thickness of the meat more uniform? Did it help the meat cook better? Was it to let the fats drain better?

Finally, to settle the facts for once and for all, They called their mother, and asked here why she always broke the lambs bone, and tied it back before seasoning and cooking it. The mother thought for a minute, and then simply stated, “Well we had many mouths to feed, and we needed a big leg, But I only had a small pan, so I broke the bone to make it fit.”

It's easy to develop patterns in our behaviours, habits, or even set ways of doing things, Many are for good reasons, For example we use the NATO phonetic alphabet as it makes it easier for anyone, irrespective of language, to understand a spelling.



The 10 Code only works, if we agree upon it, For example, if you were watching the old TV shows of the 70's the code 10-4 meant will do – or I understand, But in fact Police and military use 10-4 to ask a person to repeat their last message. Having an agreed method is a way to avoid confusion.

We said 73 “Best wishes” and the end of a transmission, but it only means something to those who know what it means ... Perhaps we best leave 88s to an exchange between the ladies.

But just because we have always done it that way, or because that's how so and so did it, doesn't make it essential. Sometimes we need to ask ourselves, why do we do things this way?

But what will be your answer?

I have recently been cleaning out the shack, and making some tough calls on what to keep, and what to throw, but even worse, I have looked at the winter damage to some of my antennas and will need to think about how to repair some that have taken damage, but if I only put them back as they were, am I doing my best repair? If the antenna failed, is it time to review what I have used to make it, and is there a better part available?

As we begin our climb out of the darkness of winter, it is a good time to think about better ways to do things? For example, if we can't erect big HF antennas, do we use a stealth antenna, or do we use D-Star, or Fusion, or DMR to join an international talk group? Should I build a hotspot, maybe an All-Star node, or even use the IRLP linking on an FM repeater to make some international, contacts.

If I do have HF, is this peak of the solar cycle a good tie to try new bands? As the summer months get closer is it a good time to plan for some park activations, or climb a summit, or maybe try some new tech?

For me, the next project is looking very much like meshtastic (*there is an article on page 19*) but, that doesn't make it the only option, Amateur radio has many ways to enjoy the hobby, and the freedom we have to experiment and use our bandwidth in different ways.

You alone understand your own situation, You alone know your interests, but there is always another solution, So do some research, ask some questions, and who knows, Maybe you'll find a new way to enjoy the hobby.

You have the licence, so why not make the most of it

Try something new, and let's enjoy the road from darkness back to light.



73 for now de ZL1NUX

ICOM HINTS AT NEW 60TH ANNIVERSARY X60 PRODUCT

At the Dayton Hamvention last month in the US of A, ICOM put on display a number of printed circuit boards from what is supposed to be the 60th Anniversary Concept Model "X60".

ICOM-UK writes... "Referred to internally as the "X60" all lips are very tightly and firmly sealed about this project and the exciting concept model behind the secrecy. Only a carefully selected handful of our very top development gurus and members of our absolute senior management in Osaka know the complete and full details about this very special project.

The full reveal will be at the Tokyo Ham Fair which will be held over the weekend of August 24th & 25th 2024. Full details on the new model, its name, its specification and its availability, plus its target price will be disclosed there."



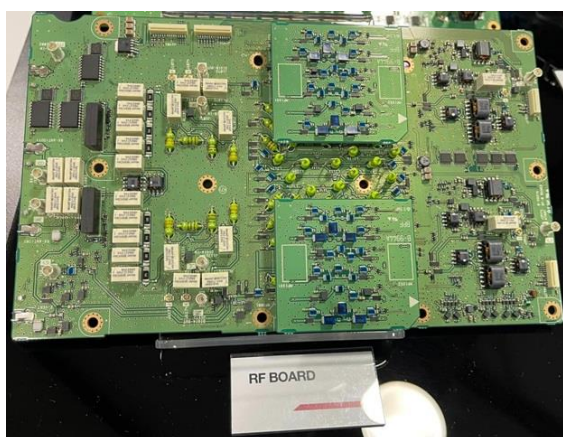
What is it??? Well, it's not a handheld! Considering the number of PCB's and the fact that the one in the middle and at the top has plenty of toroids and relays, it probably is some sort of flagship HF transceiver.

On the PA board PCB, there is 'PA200W' written on it which would certainly suggest a top end HF transceiver.

If it's just another expensive HF & 6m model then I doubt if the hype is worth it. If it's a 'shack in a box' and includes some VHF and UHF bands then it certainly could generate some excitement.

And of course, there's the cost to consider too. ... We'll have to wait and see.

More photos below...



HAVE YOU HEARD ABOUT MESHTASTIC?

Introduction

Meshtastic® is a project that enables you to use inexpensive LoRa radios as a long range off-grid communication platform in areas without existing or reliable communications infrastructure. This project is 100% community driven and open source!

LoRa Topology

Features

Long range (254km record by kboxlabs)

No phone required for mesh communication

Decentralized communication - no dedicated router required

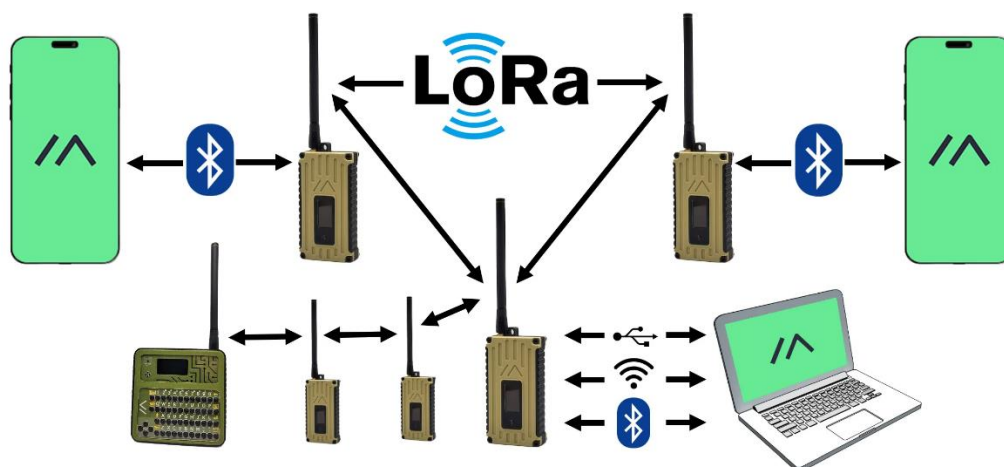
Encrypted communication

Excellent battery life

Send and receive text messages between members of the mesh

Optional GPS based location features

And more!



How it works

Meshtastic utilizes LoRa, a long-range radio protocol, which is widely accessible in most regions without the need for additional licenses or certifications, unlike HAM radio operations.

These radios are designed to rebroadcast messages they receive, forming a mesh network. This setup ensures that every group member, including those at the furthest distance, can receive messages. Depending on the settings employed, the Meshtastic mesh network can support up to 100 devices concurrently.

Additionally, Meshtastic radios can be paired with a single phone, allowing friends and family to send messages directly to your specific radio. It's important to note that each device is capable of supporting a connection from only one user at a time."

Meshtastic is an open source project available on GitHub. Hardware may be self made., or you can buy pre-made option from AliExpress, eBay or even Amazon.

When you send a message on your Meshtastic companion app, it is relayed to the radio using Bluetooth, Wi-Fi/Ethernet, or serial connection. That message is then broadcast on the radio. If it hasn't received a confirmation from any other device after a certain timeout, it will retransmit the message up to three times.

When a receiving radio captures a packet, it checks to see if it has heard that message before. If it has it ignores the message. If it hasn't heard the message, it will rebroadcast it.

For each message a radio rebroadcasts, it marks the "hop limit" down by one. When a radio receives a packet with a hop limit of zero, it will not rebroadcast the message.

The radio will store a few packets (around 30) in its memory for when it's not connected to a client app. If it's full, it will replace the oldest packets with newly incoming text messages only.

If you use these in the Ham Bands, then the encryption is disabled, but the power levels are raised to the maximum of the transmitter, if you use ISM bands, then power is kept to legal limits, but encryption (AES 128 or AES 256 Pre-Shared Key) can be enabled to allow closed groups for communication.

With the ability to transfer telemetry data, short messages or pre encoded messages, these low cost items can make for some interesting applications. Different chipsets offer different features, with some suitable for remote solar powered applications, like repeaters

Once Mine arrive, I'll advise you how they perform



A list of supported devices can be found at: <https://meshtastic.org/docs/hardware/devices/>

JUST FOR A LAUGH

Two elderly hams had been friends for many decades.
Over the years they had shared all kinds of activities and adventures on the ham bands.
Lately, their activities have been limited to meeting a few times a week to play cards.
One day they were playing cards when one looked at the other and said, "Now don't get mad at me,
I know we've been friends for a long time. but I just can't think of your name and your call.!"
I've thought and thought, but I can't remember them. Please tell me what they are."
For at least three minutes he just stared and glared at the gray haired old man..
Finally he said,
"How soon do you need to know?"

An old, old ham was lying in his death bed upstairs.
His favorite food in the world was chocolate chip cookies.
As he lay gasping for breath, he was sure he could smell freshly-baked chocolate chip cookies.
He crawled out of bed and slowly limped down the stairs.
Sure enough, across the kitchen, there was a huge platter of chocolate chip cookies on the table.
He finally made it to the table and he reached a shaking hand towards the cookies.
Suddenly, his XYL slapped his hand sharply and yelled,
"DON'T TOUCH THOSE-they're for the funeral!"

Ray & Bubba (Tennessee ham radio operators) were standing at the base of a flagpole, looking up and
trying to figure out the best way to make a 20 meter stealth vertical out of it.
A woman walked by and asked what they were doing.
"We're trying to find the height of the flagpole," said Bubba, "but we don't have a ladder."
The woman took a wrench from her purse, loosened a few bolts, and laid the flag pole down.
Then she took a tape measure from her pocket, took a measurement, announced, "Eighteen feet, six
inches," and walked away.
Ray shook his head and laughed. "Ain't that just like a woman!"
"We ask for the height and she gives us the length!"

Someone broken into my car.... they saw my Baofeng sitting on the seat. So they left three more.

Old hams don't die, they just become better grounded.

"The dummy load is between the chair and the microphone..." (I speak from personal experience.)

New Zealand Straight Key Night



Polish and lubricate that old morse key and enjoy an evening of old-time radio fun.

Straight Key Night is an informal event which honours the roots of amateur radio: Morse Code sent with a straight key (no bugs, sideswipers, keyers or keyboards).

*This semi-annual event is supported by the
[New Zealand Morse Code Telegraph Key Directory](#).*

When

Winter SKN is the second Sunday in June (June 9th), 8-9pm NZ time.

Band

80m (3.5 MHz)

Mode

CW sent with a straight key (no bugs, sideswipers, paddles or keyboards)

Rules

Maximum transmitter output: 100 watts.

All contacts must be CW-to-CW.

All contacts must be made using a straight key (with exceptions for operators who cannot use a straight key due to disability).

Stations must not 'park' on a frequency making multiple contacts. The CQ station must give up the frequency as soon as they make a contact. [Get full details of the QSY Rule.](#)

Exchange

RST or RSN / Location / Name / Key / Transmitter / Power

We recommend calling "CQ SKN" or just "SKN" (rather than "CQ TEST") for clarity and to help promote the event.

We recommend exchanging meaningful RST or RSN, rather than an automatic "599".

Bruce Scahill Best Fist Award

The Best Fist Award is named in honour of long-time SKN supporter Bruce Scahill ZL1BWG (SK). Please be sure to nominate the ONE operator who you believe had the best fist during SKN. Nominations must be received within one week after the event. [More information.](#)

Logs and summary sheets

SKN is an informal event so you will not be submitting a log or summary sheet. These forms are available, however, should you wish to use them for your own record-keeping. They can be downloaded using the links below.

Resources

PDF format is recommended if you wish to print and fill in by hand.

Word format is for those who wish to fill in the forms on their computer.

Log sheet: [PDF format](#) | [Word .docx format](#)

Summary sheet: [PDF format](#) | [Word .docx format](#)

HEARD AROUND THE SCENES

FOR SALE:

- 1 x Baofeng UV5R, In box, qith NZ power supply, Not yet programmed - \$45.00
- 1 x Pofung UV-82 With Charger. Used, But in Good Condition - \$40.00
- 2 x Quinsheng Handhelds (Single Frequency Models) Dual Band
Includes 1 Hand Mic + with Antenna \$90.00 for the set.

Being sold by a licensed dealer on behalf of a club member, Will only be sold to licensed Hams, and details of the sale will be given to RSM.

Contact ZL1NUX (Contact Details on Back page of the newsletter) for more details, or to hear these on Air.

THE NEXT NZART BROADCAST IS ON THE 30TH OF JUNE 2024 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	3.595	Duran WIA Net.
Monday	11:30	3.850/7.125	Br 12. Hamilton
	19:30	3.757	Br 12. Hamilton
	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 ZL2BH
	20:00	3.581	CW improvers Net
	20:00	7.025 – 7.040	VK CQ QRS Group (CW)
	21:00	1.850	160m Net _ Ron ZL4JMF
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
	08:30/20:00	3.730	ZL3RP
	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

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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
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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)