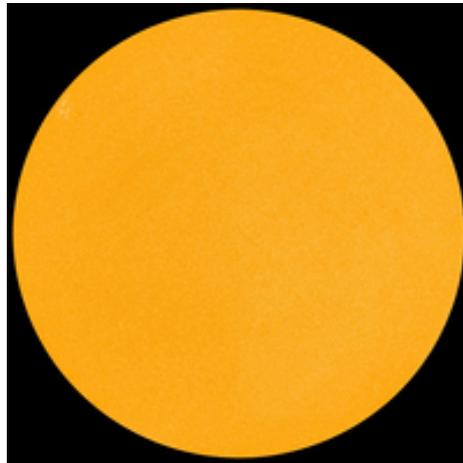


The Official Newsletter of the
**PAPAKURA RADIO
CLUB INC.**



June 2020



Even the sun is finding it hard to get moving again



CONTENTS ...

CONTENTS	2
MINUTES	3
CLUB ACTIVITY	5
UPCOMING ACTIVITIES	5
DXPEDITIONS	5
CONTESTS	6
RAMBLINGS FROM THE EDITOR'S DESK	7
NERDY NEWS	10
A WALK IN THE PARK – ZL1MR	15
HEARD ABOUT THE SCENES	15
NETS LIST (REACH OUT AND TOUCH SOMEONE)	18
CLUB CONTACT INFORMATION	19

This Month's Meetings:

With the easing of Level 2 restrictions, we can at last have committee and General meeting back at the clubrooms, albeit with some additional restrictions.

Distancing of groups to 1 metre spacing, strict contact tracing will be required and there will changes to the way in which the kitchen operates, but we will be having a General meeting at the clubrooms on Wednesday June 3rd. As our planned Guest speaker still cannot talk, we will be watching a video presentation by Jordan Shearer on the JS8 mode and JS8Call software – This was presented to a US on-line HamFest, so aimed squarely at amateurs in a lockdown

Project nights will however not be held at level 2, as it would be too difficult to ensure distancing requirements. – So not yet Business as Normal, But we are at least a little less restricted in what we can do.

Papakura Radio Club (Inc.)

Minutes of General Meeting 6th May 2020 at 19.30

Via radio link 146.825 MHz & 3.755 MHz

No visitors or Members allowed to meet at Clubrooms due to Covid-19 shutdown.

ZL1VK Net Control: President Gavin ZL1NUX

Present on air: ZL1DK, ZL1NUX, ZL1AOX, ZL1MR, ZL1BNQ, ZL1RJS, ZL1RAH, ZL1ASN, ZL1ING, ZL1AUG, ZL2SEA, ZL1RP, ZL1IJ & ZL1GIT.

Apologies: ZL4MDE & ZL1IRC

Minutes of the April General meeting as printed in newsletter was reviewed.

Matters arising: Nil

ZL1BNQ/ZL1RP

Inward Correspondence:

Email from Council advising no meetings allowed during Level 3 lockdown.

Outward Correspondence:

Email replying to Council that no meetings were planned for the Clubrooms until advised.

ZL1NUX/ZL1AOX

Finances: Dave ZL1MR gave a brief report.

Accounts to pay: Mercury Energy

Moved ZL1MR, seconded ZL1RJS that accounts be approved. Carried.

General Business:

1. **Meetings 2020:**

May 6th : Mike ZL4MDE not able tonight as he has no voice due to sore throat.

June 3rd : Meeting via ZOOM if still locked down.

July 1st : TBA

2. **Bushcomm antenna:** On hold until further notice.

3. **Project/activity nights 2020:** TBA

4. **What have you been doing during lockdown:** Subject for members when meeting closed.

5. **Info Line – Sangster Shield:** Held on 16th and 17th May. 80m CW, max 5 Watts, 6 x ½ hour periods.

6. **ZL2SEA:** Nigel is building a new shed to house WinLink radios on a neighbouring property. It will have solar power, with lightning and grounding protection. Solar power must not cause any interference for next few months while Nigel is away. He advised that 3 or 4 yachts in the Pacific were using his WinLink station as they are not allowed to land in NZ. The question where they obtained food was not able to be answered. The shed will be painted a green colour to merge into the farm background.

7. **General Business:**

1 **Richard ZL1BNQ** advised that there was 1 remit in Break-In

2 **Ian ZL1PZ** in Pukekohe turns 100 very soon (since found out it's 2nd July). Gavin ZL1NUX said the Club should send a card to Ian plus a gift. Moved Gavin, seconded Rodger that the above be actioned and sent via courier or NZ Post. Carried.

Dave ZL1MR said that we should send Ian ZL1PZ a CW message from the President!

Meeting closed at 20:07 and was followed by a short message as to what they had been up to during the Lockdown.

Gavin ZL1NUX: working on 22S, scanning repeater and simplex frequencies for contacts, even on SSB. 8 x 2m rigs running in shack plus others.

Dave ZL1MR: Listening to Morse code practice and U-Tube videos Gil Radio Prepper? QRP, CW etc. Minion 10 band QRP SDR with 3 to 9 watts and listened to G4FON soft wear for learning Morse using the Koch method – up to 35 wpm.

Rob ZL1RJS: Repaired Yaesu FT-101-ZD, put up an 80 m antenna. Had CT scan with result next Friday. Mentioned that in the UK it was hard to find a clear frequency.

Richard ZL1BNQ: Waiting for capacitors to repair TS-440. Sprayed it with a dark grey paint to make it look like new. Working on a controller for the National System.

Rodger ZL1RAH: Working from home. Monitoring aircraft on 1090 MHz – seen Air China, Greek, Police helicopter and Westpac Rescue chopper.

Rolly ZL1ASN: Clearing “bugs” from radios and self. Listening to David ZL1DK CW which he found good. Sent a thanks to all.

Ingrid ZL1ING: Not much but had WARO meeting with ladies on Sunday via the National System.

Ann Maree ZL1GIT: Learning CW – found it harder during Level 3 lockdown. Also had looked at Koch method.

Graham ZL1AUG: Found Baofeng was not tuned to 6825, and IC2A had a faulty switch.

Ian ZL1AOX: Listened to morning Welfare net, and CW practice net from David ZL1DK. Set up 6825 STSP repeater outside on first floor balcony so Pukekohe stations were able to access repeater easier.

Nigel ZL2SEA: In isolation for 14 days near airport before departing for Cook Islands for another 14 days isolation then to work on a project for next 4 to 6 months – until it is finished. He is on 20m between 4 and 5 pm local NZ time and uses remote on 80m. Also using KiwiSDR.

Cliff ZL1RP: Planning another trip to Heaphy Track. Radio wise not so much as unable to use HF from present QTH. Plans on fitting rigs to new car. Otherwise sorting through 6500 photos from trips.

Jack ZL1IJ: Listening to Morse with 90% copy. Up too late for Welfare net. Using Allstar node to USA – Pennsylvania). Using 3D printer and has made a clock which ticks but is poor at time keeping.

Thanks to David ZL1DK for linking 6825 with 3.755 this evening from the rest of the Club.

Gavin ZL1NUX summed up with a request to check in with the Committee if any help required. Net closed at 20:42.

CLUB ACTIVITY:

- While project nights and other general activities at the clubrooms cannot proceed, we have on-air activities to help you keep busy
- Maybe when we get to level 1
- Until then David is continuing the Morse Classes, and we may be running some new ham classes, as interest in the hobby is quite high right now.

UPCOMING PROJECTS:

MORSE TRAINING EACH NIGHT EXCEPT WEDNESDAY 7:30 – DAVID ZL1DK

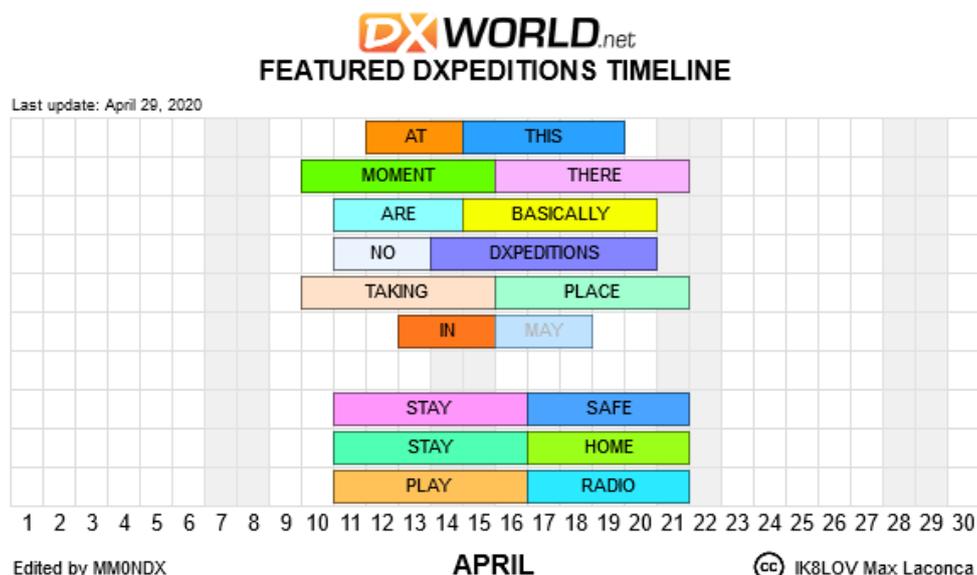
Each night at 19:30 Local, David will be transmitting Morse (audio – LSB) on the Club HF frequency of 3.755 (80 Metres), Following the transmission the message as sent will be read out, and you can self-mark.

The teaching Tool is the Teach4 system and can be found on the NZART website at <https://www.nzart.org.nz/learn/morse-code/> The recommended speed setting is 6 words per minute and 16 word Farnsworth setting (this will change later once we have mastered the alphabet.) This is a great chance to either learn a new skill, or brush up an old one

UPCOMING ACTIVITIES:

FACE TO FACE ON HOLD FOR DURATION OF LOCKDOWN

DX CALENDAR APRIL/MAY/JUNE 2020



Or check them out at DX News.com

UPCOMING CONTESTS – JUNE 2020

Date-Time	Date-Time	Bands	Contest Name	Mode	Exchange	Sponsor's Website	
1	1900	1 2030	3.5	RSGB 80-Meter Club Championship, Data	Dig	RST, serial	www.rsgbcc.org/hf
2	0100	2 0300	3.5-28	ARS Spartan Sprint	CW	RST, SPC, power	arsqrp.blogspot.com
4	1700	4 2100	28	NRAU 10-Meter Activity Contest	CW Ph Dig	RS(T), 6-char grid square	nrau.net/activity-contests
4	1900	4 2100	1.8-50	SKCC Sprint Europe	CW	RST, SPC, name, mbr or power	www.skccgroup.com
5	1900	5 1959	3.5, 7	HA3NS Sprint Memorial Contest	CW	RST, mbr or "NM"	radioamator.honlapepites.hu
6	0000	7 2359	28	10-10 International Open Season PSK Contest	Dig	Name, SPC, mbr	www.ten-ten.org
6	0400	7 2000	3.5-28	DigiFest	Dig	RST, 4-char grid square	rigexpert.com/digifest/rules
6	0600	6 0800	7, 14	Wake-Up! QRP Sprint	CW	RST, serial, suffix of previous QSO	qrp.ru/contest/wakeup
6	0600	7 0600	3.5-28	VK Shires Contest	CW Ph	RS(T), VK Shire or CQ zone	wia.org.au/members/contests/wavks
6	1300	7 1300	50	UKSMG Summer Contest	CW Ph Dig	RST, serial, 6-char grid square	uksmg.org/summer-contest-rules.php
6	1400	7 0200	1.8-144	Kentucky QSO Party	CW Ph Dig	RS(T), county or SPC	www.kyqsoparty.org
6	1500	7 1500	7-50	Dutch Kingdom Contest	CW Ph	RS(T), serial	dkars.nl/index.php?page=rules
6	1500	7 1500	1.8-28	RSGB National Field Day	CW	RST, serial	www.rsgbcc.org/hf
7	1700	7 2200	All (no WARC)	Cookie Crumble QRP Contest	CW Ph Dig	RS(T), SPC, cookie #, name	w3atb.com/cookie-crumble
10	0030	10 0230	3.5-14	NAQCC CW Sprint	CW	RST, SPC, mbr or power	naqcc.info
10	1900	10 2030	3.5	RSGB 80-Meter Club Championship, CW	CW	RST, serial	www.rsgbcc.org/hf
13	0000	14 1559	3.5-28	DRCG WW RTTY Contest	Dig	RST, CQ zone	www.drcg.de/drcgww
13	0000	14 2359	50	SMIRK Contest	CW Ph	4-char grid, mbr (optional)	smirk.org/contest.html
13	1100	13 1300	14, 21	Asia-Pacific Sprint, SSB	Ph	RS, serial	jsfc.org/apsprint/aprile.txt
13	1200	14 1200	3.5-28	Portugal Day Contest	CW Ph	RS(T), CT district or serial	portugaldaycontest.rep.pt
13	1200	14 2359	1.8-50	SKCC Weekend Sprintathon	CW	RST, SPC, name, mbr or "none"	www.skccgroup.com
13	1400	13 1800	144, 432	AGCW VHF/UHF Contest	CW	RST, serial, power class, 6-char grid	agcw.org/index.php/en
13	1500	14 1500	3.5-28	GACW WWSA CW DX Contest	CW	RST, CQ zone	contest.com.ar/gacw-wwsa
13	1600	14 1600	50	REF DDFM 6 Meter Contest	CW Ph	RS(T), serial, 4-char grid	concoeurs.r-e-f.org
13	1800	15 0259	50 and up	ARRL June VHF Contest	CW Ph Dig	4-character grid square	www.arrl.org/june-vhf
15	0000	15 0200	1.8-28	4 States QRP Group Second Sunday Sprint	CW Ph	RS(T), SPC, mbr or power	www.4sqrp.com
15	1900	15 2030	3.5	RSGB FT4 Contest Series	Dig	4-char grid square	www.rsgbcc.org/hf
16	1200	16 1400	7	SARL Youth Sprint	Ph	RS, age	www.sarl.org.za
17	0030	17 0230	3.5-14	NAQCC CW Sprint	CW	RST, SPC, mbr or power	naqcc.info
20	0000	20 2359	3.5-28	Battle of Carabobo International Contest	Ph	RS(T), YV state or serial	www.qrz.com/db/YV4VV
20	0000	21 2359	1.8-28	All Asian DX Contest, CW	CW	RST, 2-digit age	www.jarl.org/English
20	1200	21 1159	3.5-28	Ukrainian DX Classic RTTY Contest	Dig	RST, 2-letter oblast or serial	urdx.org/rtty/eng.htm
20	1400	21 1400	50, 70	IARU Region 1 50/70 MHz Contest	CW Ph Dig	RS(T), serial, 6-char grid	www.iaru-r1.org
20	1500	21 1500	1.8	Stew Perry Topband Challenge	CW	4-char grid square	www.kkn.net/stew
20	1600	21 0400	3.5-28	West Virginia QSO Party	CW Ph Dig	RS(T), county or SPC	qsl.net/wvsarc/wvqp/wvqp.html
20	1800	20 1959	1.8-50	Feld Hell Sprint	Dig	RST, mbr, QTH, grid, power	sites.google.com/site/feldhellclub
21	0800	21 1400	50	WAB 50 MHz Phone	Ph	RS, serial, WAB square or country	wab.intermip.net
21	1900	21 2359	1.8-28	Run for the Bacon QRP Contest	CW	RST, SPC, mbr or power	qrpcontest.com/pigrun
24	0000	24 0200	1.8-28	SKCC Sprint	CW	RST, SPC, name, mbr or power	www.skccgroup.com
25	1900	25 2030	3.5	RSGB 80-Meter Club Championship, SSB	Ph	RS, serial	www.rsgbcc.org/hf
27	0600	27 1700	3.5-28	UFT QRP Contest	CW	RST, QRP/QRO, mbr or "NM"	uft.net/reglement/eng.pdf
27	1200	28 1200	3.5-28	Ukrainian DX DIGI Contest	Dig	RST, 2-letter oblast or serial	www.izmail-dx.com
27	1200	28 1200	1.8-28	His Majesty King of Spain Contest, SSB	Ph	RS, EA province or serial	concurso.ure.es/en
29	0001	5 2359	28	10-10 International Spirit of 76 QSO Party	CW Ph Dig	Name, mbr or "0," SPC	www.ten-ten.org
29	1300	30 0400	1.8-28	QCX Challenge	CW	RST, name, SPC, rig	qrp-labs.com/party.html

All dates and Times are in UTC and are not adjusted for local time

Mbr = Membership number. Serial = Sequential number of the contact. SPC = State, Province, DXCC Entity. XE = Mexican state.

Listings in blue indicate contests sponsored by ARRL or NCJ. The latest time to make a valid contest QSO is the minute listed in the "Finish Time" column. Data for Contest Corral is maintained on the WA7BNM Contest Calendar at

www.contestcalendar.com

Check for updates and a downloadable PDF version online at www.arrl.org/contests.

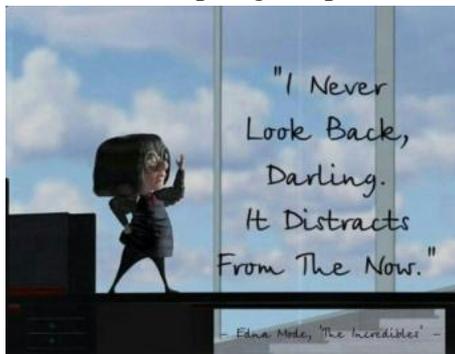
RAMBLINGS FROM THE EDITORS DESK

So we move into June, and with half the year gone, we will have to face the reality that in this time we have managed just 3 meetings (Feb, March and now June) – This will definitely be a year for the history books. We did manage to get a team out for Jock White, and if the first reports are to be believed, we get to keep the Hastings trophy for yet another year, Big thanks to all who helped out, big or small, it all helped to keep the club name out there.



Due to many years of hard work by past leadership, this club remains in sound position, and has much to look forward too, including a healthy number of new members and several persons who are interested in joining our club, and hobby, so keep an eye out for new or prospective members, Say hi and make them welcome, as the future will inherit the legacy we leave. One thing I was reminded of as we worked through the lockdown was that we are not owners of the callsign, but only guardians of it. Hearing stories of those who have adopted the call of a previous silent key to keep the legacy alive, or maybe without even knowing who held it before, we keep the memories and history alive. If every callsign tells a story, then the hobby has many, many stories to tell.

One benefit of the lockdown is that it highlighted the importance of amateur radio as both a means of communication, and also a community of skilled persons, and this has resulted in Government Funding to further the role of AREC in providing this expertise to Government and Non-Government organisations, like Civil Defence and Land-SAR, and positive perceptions of the hobby as a whole, But not without some resistance, there is still a large part of the community who do not understand it, and see it as a relic of the past with no value, and this has been seen in some recent council district plans, In Auckland we are lucky, but we too, despite good plans for antenna permissions, have many who by virtue of rental agreements,



body, corp. rules, or simply to avoid neighbourhood tensions will find the installation of large antenna's difficult, and to this end many of us will need to look towards low impact antenna installations in the years ahead. Projects like the "flowerpot" antenna complete with artificial plants, or the "Flagpole" antenna, so common in the US may be what many of us are forced to use in some cases. Vertical may be the new Horizontal. Or as the imaginary character in Pixar's "The Incredibles" stated "*I never look back darling, it distracts from the now*" The way its always been done, May not be the best tomorrow, but ironically, the past also gives us clues to move forward into the new now

As we look to a new future, we will no doubt see many who will need to have the sort of antenna that is easily hidden, and may not perform optimally, and if this wasn't enough of a challenge, they will also need to operate in an environment of a high noise floor, and reduced solar activity. Yes it will come back one day, but after many false starts, then stops, the solar minimum has now lasted longer than anyone could have predicted, leading to talk of maunder minimums. While the likelihood of solar cycle 25 being any different from Solar Cycle 24 remains low, it seems to be having a terrible time getting started, and this is playing havoc with DX.

Portable and Field operation as well as Weak Signal Communication has therefore been a hot topic, and of course Morse code was one of the first ways this was done, The venerable ZC1 with less signal output than a modern QRP rig would hardly be the phone rig of choice, yet with a good vertical, and ground plane, and a low noise floor, allowed voice and CW (CW was of course easier to detect), over impressive distances, and this sort of design may be in our Ham futures again. Of course digital modes Like FT8 or WSPR can get a lot further, but these are more like contesting, you don't actually chat on them, RTTY, or Olivia allow you to exchange messages, but users take some finding. I have played with JS8 which is nice blend, but again a lack of users, and my limited 40 Metres capacity has made it challenging, but it's an interesting way of having a digital QSO, and you know where to listen, which is nice.

During the Lockdown, Many of us returned to reading as a pastime, and Graham Street found this nifty gadget that you can add to a lamp over the bed to allow you to read at night, although I have suspicions that they may not really catch on.

It is now very unlikely that the Rally of New Zealand will happen this year, so there may a few less AREC radio events for us to cover, but as we get some of our freedoms back, smaller local rally's will again be starting, so if you can help out, do let David (ZL1DK) know so he can add you to the roster, Mostly VHF mobile, but HF mobile won't hurt, and it's a good way to keep in touch if you are planning an NZ holiday, which it seem is a plan for many New Zealanders, so if you're looking for some radio related projects, maybe you can start with some mobile radio, with repeaters up and down the country, there's plenty of hams out there to meet on air when you're out on the road.

Later in the newsletter, I have an article from Dave Wilkins (ZL1MR), which may raise a smile, it's from the Pre-Covid days, but this walk in the park, is worth a read.

The looming end of the lockdown has not really impacted me, as I have been full time working even at level 4, and the training industry is full on with re-training, as well as those who were already in training, But it's also an industry in a state of transition, so the workload has never been higher, but the constant tracing, sign in, sign out, Hand washing and reduced class numbers have increased cost dramatically while creating bottlenecks reducing productivity, so it will be months before we clear the backlog, Job security is nice, but the long hours are taking their toll,

With over 65 leave days accrued, and some of the pressure coming off my days, there is some pressure, from a few directions, for me to take some leave, and have a bit of a holiday, with the many deals on Campervans, I had hoped to get a special deal on a motor home purchase, one Ann-Maree and I had been considering for some time, but in fact it looks like prices on these may in fact be going up, It looks like everyone who had planned an overseas trip is now looking to buy a campervan instead, but we will keep looking and hopefully the right one will reveal itself in due course. But until then, I can always leave the money in the bank. In the meantime the van still allows me to find a place that doesn't give me a constant S9 Noise floor to compete with.

Almost as busy as the camper salespeople are the local couriers who are struggling with large numbers of deliveries so any overseas items, including ones ordered in NZ, but then had to be shipped from overseas due to demand, are getting very long delivery times, so there are plenty of bench projects awaiting goods, and a wife still awaiting her mother's day present. But such is life in the new normal – (*maybe I should have said we needed them for the avatar movie?*) but parts must eventually arrive, so at some stage, I will get to HF antennas and get the mobile as well as the portable HF antenna systems all hooked up and running and try a number of different options, and after seeing Wally's ZL1JLM vertical arrangement, I'm keen to try the Coil Capacitor loading/Tuning arrangement – Looking good,

So as always there is still plenty to do with the hobby, If Elon Musk can put rockets in space, what can we do ? The low levels of solar flux make it a great time to get these projects done, because if you can log contacts now, imagine how you will do, when the bands finally open up.



READ IN BED.

SWITCH CONVERSION ATTACHMENT.

The luxury of reading in bed without the necessity of getting up to switch off at door, is one of the many advantages which "Goltone" attachment will provide. Outfit is complete with Adaptor, 6 ft. Twin Flexible Cord and Pear Switch ready for immediate use.

Cat. No. KG130 **8/6** each

Speaking of SpaceX, and having spent much of the weekend watching the incredible feat of engineering from pre-launch right up until docking in the early hours of the morning, there were many things that amazed me, but one that I stumble across in a leadership quote made me really sit up and take notice. With only minor tweaks, this simple 6 point statement could be applied to any business, organisation, or leadership group, and I thought it was worth sharing as a final thought.
(Thanks to Dan Croiter for use of his creative commons work)

6 LEADERSHIP PRINCIPLES - TESLA & SPACEX

<p>Move fast</p> <p>The ability to rapidly respond to trends and changes in the market drives competitive advantage. This helps building resilience through speedy response to current issues and challenges in the automotive industry</p>	<p>Do the Impossible</p> <p>Think outside the box; act unconventional. Go beyond conventional limits of productivity and creativity in automotive design. This condition opens new doors for the company to improve its performance</p>	<p>Constantly Innovate</p> <p>Innovation is at the heart of what we do. Innovation helps develop cutting-edge electric cars and related products. Tesla must innovate continuously to maintain its competitive advantage.</p>
<p>Reason from “First Principles”</p> <p>Rather than making analogies, identify root factors to understand and solve problems. Use first principles to fulfill your job</p>	<p>Think Like Owners</p> <p>Maintain a mindset supportive of business development. Act like owners. Take responsibility and accountability in the job and the overall performance of the business</p>	<p>We are ALL IN</p> <p>A team that works to improve the business. Teamwork develops synergy and makes the corporate culture effective in maximizing benefits from employees’ talents and skills</p>

Watch the full story about this framework on my YouTube channel © Dan Croiter 2017 • part of my video series about unique company principles and culture

I wonder how many hams, would have had similar mottos, maybe when we are passing AREC messages, helping at a club function, erecting an antenna for a fellow ham, or just helping set up for a meeting.

The Kiwi Ham is the epitome of the number 8 wire thinking, It was this type of risk it all, and go for it, that started Tait, Hamilton Jet, Gallagher’s, electron and numerous other innovative enterprises, If we are to be any more than a tourist dependant country into next decade, we will have to re-discover that of that creative energy, and then celebrate success, rather than cutting off the head of any poppy taller than the rest.

IN the decade of the innovator, if we are to be 21st century hams, maybe we need to embrace some new innovative ideas and celebrate the success of those who dare to get out and make it happen. In the decade of “everything” on the air, maybe it’s time to get out, get loud and get heard.

And have fun doing it, even if you have to stay “Two Meters Apart”, which seems pretty close when I think about it.



73 for now Gavin - ZL1NUX

GEEKY RADIO NEWS

LITHIUM ION BATTERIES LAST LONGER IF YOU KEEP THE CHARGE BELOW 80% - GRAHAM STREET - ZL1AUG

Hey All,

You've heard you shouldn't charge your lithium-ion battery to 100%. But did you know you shouldn't go above 80%?

Lithium-ion batteries last the longest when they're at 30-80% charge. It's the charge going above 80% or below 30% that causes your battery to deteriorate faster over time.

That's right. Overcharging can happen before you hit 100%. But if you know to try and keep your battery in this range (and only give a full charge if you need it for a long trip) you can keep your battery from deteriorating early.

So make sure you (and your friends) are in the know about how to keep their batteries in top condition. Remember, stay charged, power up!

For other battery types, check out the articles on battery charging in last year's newsletters - editor

WHAT'S A BILLION BETWEEN FRIENDS?

As spending gets past millions and the values of billions roll slowly off the tongue, it's hard to track such numbers, so to help a little with perspective a few memes floating on social media and some time with a calculator gave me the following:

- A Billion Seconds ago = 31 Years 8 months 19 days and 3 seconds - For some us half a lifetime
- A Billion Minutes ago = 1,901 Years or about 119AD – So the Bible had not yet been compiled.
- A Billion Hours ago = 114,808 Years so in human terms it's the stone age
- A Billion Days ago = 2.74 million Years its the Pliocene period, and Dinosaurs rule
- A Billion Years Ago = There is barely multi-cellular life
- A Billion Dollars = It was yesterday, based on current government spending

The numbers might be easy to say, but each of those dollars has to come from 5 million people, and then only from the working ones. And that's a lot of dollars we each have to find.

Might be worth a minute of thought, next time you hear the numbers .



IF COVID-19 WASN'T ENOUGH – MURDER HORNETS ?

Two new specimens of Asian giant hornet have turned up in the Pacific Northwest of America, suggesting that the invasive species made it through the winter despite efforts last year to stamp out the menace to North America's honeybees.

A big, yellow-and-black insect found dead in a roadway near Custer, Wash., has been identified as the Asian giant hornet, or *Vespa mandarinia*. It was probably a queen, from a brood in a 2019 nest and now ready to found a colony of her own.

Canadian scientists have also confirmed their first giant hornet of 2020, a specimen spotted May 15 in Langley, British Columbia.

Dubbed the “murder hornet” to the annoyance of entomologists, the predator earns its nickname from its proclivity to nab a honeybee, bite off the bee's head carried home to nourish young hornets. Raiding parties of several dozen Asian giant hornets can kill whole hives containing thousands of bees in a few hours.

Those are just some of the details that make *V. mandarinia* the newsiest stinging invader in the USA for years. It's a fierce little predator, though not as apocalyptic as “murder hornet” headlines have suggested.

But they have not made it New Zealand – Yet



HALF THE UNIVERSE'S ORDINARY MATTER WAS MISSING – AND MAY HAVE BEEN FOUND



At long last, all of the universe's ordinary matter seems to be present and accounted for.

Astronomers have taken a new census of matter in the universe by examining how bright flashes of radio waves from other galaxies, called fast radio bursts, are distorted by particles on their way to Earth. This analysis shows that about half of the universe's ordinary matter, which has eluded detection for decades, is lurking in intergalactic space, researchers report online May 27 in *Nature*.

The mystery of the missing matter has vexed cosmologists for some 20 years. This elusive material isn't the invisible, unidentified dark matter that makes up most of the mass in the universe. Its ordinary matter, composed of garden-variety particles called baryons, such as protons and neutrons

Observations of light emitted when the universe was young indicate that baryons should make up roughly 5 percent of all the mass and energy in the cosmos. But in the modern universe, all the matter that astronomers can easily see, like the stars and gas in galaxies, adds up to only about half of the expected amount of matter.

Scientists have long suspected the missing matter is hiding between galaxies, along filaments of gas strung between galaxy clusters in a vast cosmic web “But we haven’t been able to detect it very well, because it’s really, really diffuse, and it’s not shining brightly,” says Jason Hessels, an astrophysicist at the University of Amsterdam not involved in the new work.

Some intergalactic matter is detectable by how it absorbs the light of distant, bright objects called quasars. But the only way to take inventory of all the baryons hanging out in intergalactic space relies on mysterious blasts of radio waves from other galaxies, possibly generated by energetic activity around neutron stars or black holes.

Even though no one knows what causes these blasts, called fast radio bursts or FRBs, they can make useful baryon detectors. A burst’s high-frequency, high-energy radio waves zip through intergalactic matter faster than its low-frequency waves. The more intergalactic matter that a radio burst’s waves pass through, the farther its lower-frequency waves fall behind — creating a detectable smear in the radio signal by the time it reaches Earth.

Astrophysicist J. Xavier Prochaska of the University of California, Santa Cruz and colleagues examined five fast radio bursts from five galaxies, all detected by the Australian Square Kilometre Array Pathfinder. For each FRB, the researchers compared the arrival times of radio waves of different frequencies to tally up the number of baryons that the burst encountered on its journey through intergalactic space. Then, using the distance between the FRB’s host galaxy and the Milky Way, Prochaska’s team could calculate the baryon density along that path.

Astrophysicist J. Michael Shull of the University of Colorado Boulder cautions that “five is an awfully small number” of FRB observations from which to draw conclusions about the number of baryons throughout the modern universe. But “once they get their error bars beaten down with many, many more bursts ... I think that will really be the nail in the coffin on this baryon problem,” he says.

Right now, all the researchers can say about the lost-and-found matter is that it’s between galaxies. But with thousands of FRB observations, astronomers could start teasing out the slight variations in baryon density along the sight lines between the Milky Way and other galaxies to map out the cosmic web.

SPACEX’S ASTRONAUT LAUNCH MARKS A MILESTONE FOR COMMERCIAL SPACEFLIGHT

For the first time, humans are hurtling into Earth’s orbit on a commercial rocket.

SpaceX’s Crew Dragon spacecraft launched at 3:22 p.m. EDT from the Kennedy Space Center in Cape Canaveral, Fla., on May 30, to take U.S. astronauts Doug Hurley and Bob Behnken to the International Space Station (ISS).



“So rises a new era of American spaceflight, and with it the ambitions of a new generation continuing the dream,” said NASA commentator Dan Huot shortly after launch.

Called Demo-2, the May 30 launch and flight will be the ultimate test of the spacecraft's systems and its ability to ferry a crew into orbit. The Falcon 9 rocket landed safely on a floating platform after carrying the astronauts to space.

The launch was originally scheduled for May 27, but was scrubbed due to bad weather less than 17 minutes before lift-off time. This time, the weather cooperated.

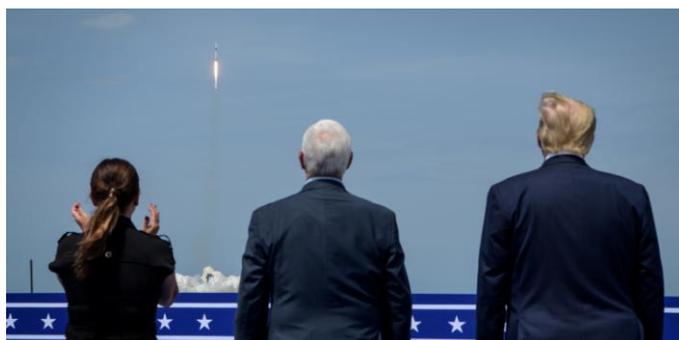
When asked what he had to say to the doubters, Elon Musk, Founder of SpaceX, remarked, "I doubted it too, it took us 4 attempts just to get into orbit, if we had failed to get the cargo runs, we would have been broke, but we made it, and today we have humans flying SpaceX, It's a good day"

A good day for SpaceX, a good day for NASA and a good day for the Millions who stayed watching for the entire 19 hour flight.

And to quote Elon again ... "If this inspires one person to be the next creator, inventor or even astronaut, today is a good day."

President Donald Trump, right, Vice President Mike Pence, and Second Lady Karen Pence watch the launch of a SpaceX Falcon 9 rocket carrying the company's Crew Dragon spacecraft from the balcony of Operations Support Building II at NASA's Kennedy Space Center in Florida. The first time a sitting president has watched a new rocket carry humans in American history, and the first time that both the president and vice president have attended any NASA launch, President trump has a been a driving force in the commercial crew program and space exploration was heard to say "One down, Now onto Mars".

Photo Credit: (NASA/Bill Ingalls)



Zero-G Indicator (and not a kids toy)



A custom Tesla – How Unexpected



1960

2020

2020

A WALK IN THE PARK – ZL1MR - 13 MARCH 2020

I had to change a repeater at the Kohukohunui repeater site at the top of the Hunua Ranges. The sad part was this was the second time I had to take a new repeater up there! The first time I had headed up with Harry ZL1BK and had unfortunately picked up the wrong repeater!

I had already suffered carrying a 20kg load up there (1½ hours), swearing a lot, and then carrying it back down again! Now I had discovered the correct repeater, now 25kg! It had to go up there so I staggered away with Harry again and this time it took 1¾ hrs.

I'm afraid that the extra 5kg was the straw that nearly broke this camel's back! It took an extra 20 minutes to get there so it wasn't a fast trip. Next time I'm going to recruit a fit younger LandSAR person to be my porter. After all the repeater site is there to support AREC and LandSAR operations.

Unfortunately, a problem existed with the sound transmission and we figured it may be the Duplexer. Harry tuned up a replacement and I now needed to do trip number 3 to get this sorted.

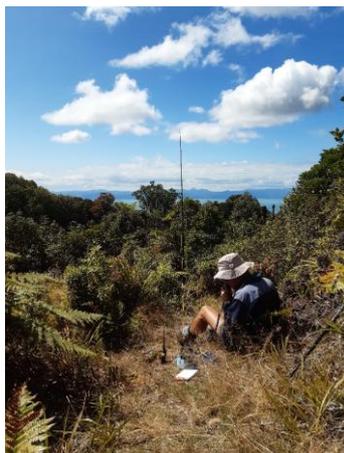
I mentioned this impending mission at a club meeting and asked if anyone wanted to come along with me as I would be driving through the park to the track end, way shorter than walking in all the way. Well John ZL1BYZ was keen as he could see a SOTA opportunity.

I had a day available so texted John and we headed off. It was a fine summers day, pre COVID-19 so we had an uneventful drive. No-one glaring as we broke any curfews.

The duplexer replacement was fairly straightforward and then it was off to do the SOTA thing.

I'd never been on a SOTA trip before though I had worked John several times both VHF and HF whilst mobile on my way down country.

It was certainly entertaining to watch. A small HF station, VHF handheld, and a mobile phone. John was juggling CQ on VHF, talking back with Jacky ZL1WA on VHF as well as txt (I think) a bit of SSB and then piling on into CW on HF.



A couple of hours then it was a leisurely walk back to the ute in the normal time of around 1¼ hrs one way. Just goes to show when you get the Gold Card things stop working right under heavy exercise!

Here are some pictures of John working away at having fun whilst others were at work!

The full station: John using his Italian CW paddle, KX3 HF, SOTA Beams end fed long wire, 12V Li-Ion battery pack, Hand Held VHF, iPhone, Notepad and pen plus fine weather, what more does a dedicated SOTA Operator need?

SEEN OR HEARD AROUND THE SCENES

TECHNICAL WRITERS WANTED

The NZART exam rewrite committee needs writers from among the amateur community to help make our exam more relevant for current times.

Below is a list of the broad sections we need writers for.

- Receivers
- Transmitters
- Measurements
- Interference and Immunity
- Safety

If you are interested please contact:

Don MacDonald ZL3DMC
infoline@nzart.org.nz

and he will send detailed requirements and a guide for writers

SKN WINTER EDITION ON SUNDAY 14 JUNE

The winter edition of New Zealand Straight Key Night will take place 8-9pm on Sunday 14 June

As usual, this casual contest will be held on 80 metres, and operators must use straight key (no bugs, paddles or sideswipers). We'll use the traditional SKN exchange, which includes type of key and type of transmitter.

But this time there will be an extra challenge: the QSY Rule maritimeradio.org/resources/new-zealand-straight-key-night/the-qsy-rule/, and I strongly urge you to get familiar with it. If you don't, well, I think it will be a bit like driving on the wrong side of the road and wondering why everyone's tooting their horn!

Find out more about SKN, including the QSY Rule, at maritimeradio.org/skn

I hope to work you on 14 June! Please feel free to contact me with any questions.

Neil Sanderson ZL1NZ, SKN Manager <neil@z11.nz>

ZL1PWM BAY OF ISLANDS SDR

NZART members are invited to use my KiwiSDR HF receiving station located in the Bay of Islands.

<http://kiwisdr.zl1pwm.nz:8073/>

The KiwiSDR receiver is configured for 2 users with full spectrum display and 6 users audio only.

The antenna is a north east facing delta terminated loop.

73

Peter Mott

ZL1PWM

Bay of Islands, New Zealand

MATCHING UNIT FOR VERTICAL ANTENNA – ZL1JLM

The Photo below shows matching unit for 9.8Al Vertical Antenna.

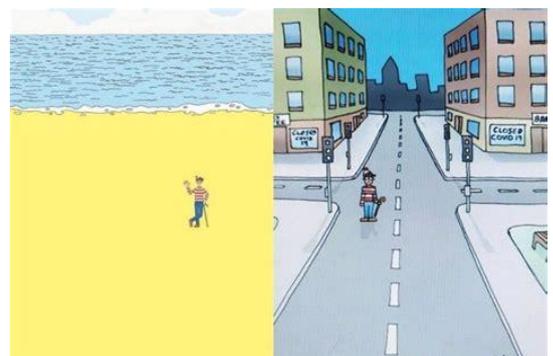
8 radials of different lengths were used. The antenna could be tuned easily to 10m, 20m, 40m, 80m & 160m band. I have often used it on all bands(QRM permitting on 80 and 160m).



SWR curves for the different bands are shown below



Well – Now we know where Wally’s really been during lockdown.



FAREWELL SDR.HU

For anyone that needed a remote receiver, the SDR.HU site was one of the fastest ways to locate an SDR anywhere in the world that you could use to listen to yours, or someone else's signals, but the latest announcement Andras HA7LIM, site admin is a chilling read.

The SDR.hu project has been finished

I'd like to say a big thanks to everyone who joined my journey with this project!

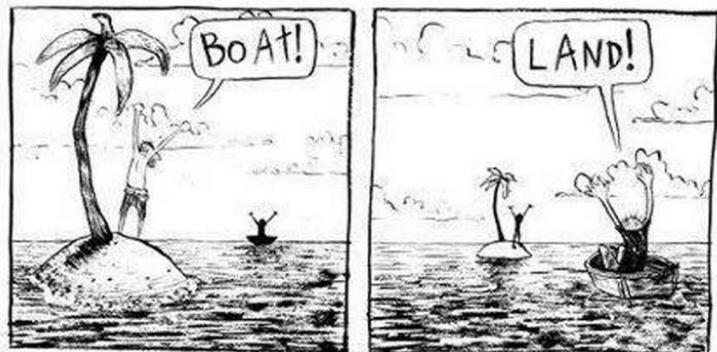
I hope you had a good time listening on the site, and learnt some things about SDR. The purpose of this site was to provide a technological demonstration for amateur radio operators about Software Defined Radio, and I hope this goal has been reached. As this website was a one-person hobby project, with my tasks and responsibilities growing, and my focus moving to other projects at which I hope to make a greater positive impact, I'm unable to further develop SDR.hu and protect it from abuse.

Furthermore, I think this site has some good alternatives now. Nevertheless, in my opinion amateur radio receivers should be shared with strict access control in the future.

If you have more questions, feel free to consult the FAQ.

73!

THOUGHT PROVOKING



Perspective...



SOME NETS – FOR WHEN YOU ARE LOOKING FOR COMPANY

Day	Time (Local)	Freq (MHz)	Group	
Sunday	08:00	3.750	Southern Net	
	09:00	3.700	Bch 10. Franklin.	
	09:00	3.755	Bch 65. Papakura.	
	16:00	7.125	SPAM Net (AM Mode)	
	19:00	146.900	YL Net	
	20:00	3.710	Bch 42. Titahi Bay	
	21:30	3.595	Duran WIA Net.	
	21:30	3.595	VK2WI	
Monday	19:30	3.757	Bch 12. Hamilton	
	20.00	3.540	CW Practice Net	
	<i>updated</i>	20:00	3.605	Br 80. Hibiscus Coast
	<i>updated</i>	20:00	Nat System	W.A.R.O
		20:30	3.870	O.T.C (Old Timers Club)
Tuesday	09:00	7.096	Ex Post Office Techs	
	21:00	1.850	160m Net _ Ron ZL4JMF	
	19:30	3.690	QRP ZL2BH	
	20:00	3.581	CW improvers Net	
Wednesday	20:00	3.660	Geek Net	
	20:00	3.645	Bch 02. Auckland	
	20:00	3.745	Bch 84. Bay of Islands	
	20:30	146.525	W.R.S.C	
Thursday	09:00	7.096	Ex Post Office Techs	
	19:30	3.690	QRP ZL2BH	
	20:00	3.540	CW Practice Net	
	20:00	3.615	Bch 89. REG	
	20:30	3.696	ZL10A	
	20:30	3.666	LF Net ZL2CA	
	20:00	3.690	ZL QRP SSB Net	
Friday	20:00	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	
	19:30	3.650	Christian Fellowship	
	20:00	3.760	???	
	20:30	3.600	Ch 62. Reefton/Buller	
Daily or Other	07:30	3.696	ZL20A	
	08:30	3.730	ZL3RP	
	15:00	14.300	Pacific Seafarers	
	17:30	3.760	Home Brew	
	17:30	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		

This is designed to be a living list, Please update whenever you are able:

Also: Calling Frequencies:	Daily	Sunset-Sunrise	3580 USB	NZ FSQCall
Courtesy of Murray ZL1BPU	Daily	Sunrise-Sunset	7105 USB	NZ FSQCall
	Daily	24/7	7104 USB	International FSQCall

I'm told the last of these sees some amazing DX, especially around sunset.

Papakura Radio Club Inc.
Branch 65 NZART Club Directory 2017
 Wellington Park, 1 Great South Road.
 PO BOX 72-397 Papakura 2244
 PHONE 09 296 5244
Westpac 03-0399-0019896-00
Club website: <http://www.qsl.net/zl1vk>
Club email: zl1vk.club@gmail.com

Elected Officers

President	ZL1NUX	Gavin Denby	Ph 09 299 3415	021 1046946
Vice President	ZL1BNQ	Richard Gamble	Ph 09 5371238	021 729270
Secretary	ZL1AOX	Ian Ashley	Ph 09 2981810	021 1981810
Treasurer	ZL1MR	David Wilkins	Ph 09 2999346	021 1857903
Committee	ZL1RJS	Rob Stokes	Ph 09 2961152	021 307005
	ZL1IRC	Ian Clifford	Ph	021 8248400
	ZL1ASN	Rolly Adams	Ph 09 2966107	021 0427760
	ZL1DK	David Karrasch	Ph 09 296 8264	021 560180
	ZL1RIC	Ricky Hodge		021 666421
AREC Section Leader	ZL1BNQ	Richard Gamble	Ph 09 5371238	021 729270
CD Liaison	ZL1AOX	Ian Ashley	Ph 09 2981810	021 1981810
Newsletter Editor	ZL1NUX	Gavin Denby	Ph 09 299 3415	021 459 192
Hall Custodian	ZL1AOX	Ian Ashley	Ph 09 2981810	021 1981810
Newsletter.	Contact: zl1nux@outlook.com			

Our newsletter is published monthly and normally distributed just prior to the club meeting. Please forward articles etc to editor Wednesday 1 week prior to the general meeting. Do notify any change of address. Including E-Mail Address.

Meetings

General Meetings are held at the Club rooms on the 1st Wednesday of each month, starting at 7.30pm. Look at your calendar and mark these nights. The speaker follows the General Meeting.

Project Evenings are on the 4th Wednesday of each month.

Committee Meetings are held on 3rd Wednesday of each month at 7.30pm, unless advised.

Activity Nights are held on the 2nd Wednesday starting at 7.30pm.

AREC Meetings are on the 5th Wednesday night, also starting at 7.30pm

AGM: Held in November

Subscription: Full membership and newsletter \$20.00

Family Membership and newsletter \$30.00

Student or Country DX membership \$10.00

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) after January 2011. Total 21 Points. Cost \$5-00. Certified list and \$5-00 to Secretary, Papakura Radio Club. Address above.

ZL1VK Club Nets

146.900 MHz Sunday at 8.30am. Controller ZL1NUX, Gavin Denby. If the repeater is not available, listen 146.825 MHz repeater or 146.475 simplex.

3.755 MHz Sunday at 9.00am. Controller ZL1BNQ Richard Gamble. (Linked to 146.675 & 438.775)