The Official Newsletter of the

PAPAKURA RADIO CLUB INC.

November 2020

CQ all Members … Let's set the direction for the next 12 months

CONTENTS ...

This Month's Meeting: AGM

Wednesday 4th of November at 7:30pm will be the next general meeting for 2020.
Following General Business, We will hold the AGM for 2020

Notice of AGM

Notice is given that the Annual General Meeting of the Papakura Radio Club Inc. will be held on **Wednesday 4th November 2020**, at the Club rooms, 1R Wellington Park, 1 Great South Road, Papakura commencing at 20:00.
The business of the meeting will be to:

- Receive the reports of Officers
- Elect President, Vice President, Secretary, Treasurer and four (4) Committee for 2020/21
- Appoint Accounts Reviewers for 2020/21
- Receive Members submissions and remits.

CLUB ACTIVITY:

In this newsletter you will notice a minor change from previous editions, As the newsletter has a circulation much wider than just the active members, the minutes and financial statements are provided as separate documents, allowing us to make the newsletter more generic, while still keeping members informed, This will also mean members can print the minutes or financial statements for meetings, without needing to print the entire newsletter. For most of you this will means a few extra attachments on the email, while for the few who still receive a printed copy, some inserted pages, hopefully reducing clutter and confusion.

With the return to Level 1 meeting at the clubrooms have resumed, and you will note that a QR code has been placed by the door to allow those using the tracing application to scan this for racing purposes.

Project and activity nights are off to a slow start, with most members just making the most of the chance to chat and catch up, whatever your motivation, Feel free to pop in and see what we are up to.

AGM 2020

It's that time again to elect the committee and officers for what will be another challenging year, but we hope another good one for the club membership. It's also a reminder that annual subscriptions are also due, by remaining a financial member you not only support the club, and the many amateur radio services that we as a club support, but also you show that the club is worthy of the support, and enthuse us to continue, growing as we go forward is important to our future, but maintaining the support of our member is equally important. Please consider this, when we ask you for a membership renewal for 2021.
Yes it's the polite way to remind you your subs are due

AGM REPORTS:

PAPAKURA RADIO CLUB INC – PRESIDENTS REPORT 2020

If we were to use any word for this term, it would have to be "CANCELLED". But that would be a little unfair, we have seen a small reduction in overall membership, with silent keys, and other just moving one, but also some new members and we have seen a number of people returning to the hobby, at this AGM we will have at least one member present, who was a visitor at the last AGM, and we have managed to support different events and participate, and again win, field day awards. So it's not all bad. During the lockdowns, members used radio to keep morale up, and the large numbers who joined these nets showed that with suitable motivation, and opportunity, there was plenty of interest in keeping in touch with radio, and this should provide confidence that there is still plenty of interest in amateur radio and the Papakura radio club, if we can keep the hobby interesting. This was also re-enforced by our small, But successful car park boot sale, which could well be a potential future activity.

But we cannot afford to rest on our laurels, and assume that we have made it. The COVID-19 pandemic and the response to it has changed the fabric of our society in ways we have yet to grasp. But the world has changed, and it will not be changing back to business as usual for a very long time. Changes like this are known as paradigm shifts, and they are times when businesses and organisations must decide if they are resists the shift, or embrace it. The last such changed for amateur radio started in the 1990's when the internet and email opened the door for communication without the need for expensive, complex radio equipment, When combined with cellular technology, the social media revolution began, and the age of easy instant communication seemed like the end of amateur radio, But the hobby survived, adapted and grew, and it's time to do so again.

Papakura remains a strong club, due in no small part to the hard work of the committee, and the work of the all those who have served before, and while we had hoped to have achieved much more after a year, the extended periods of restrictions have of course limited the opportunities, but we hope that 2021 will have less of these to contend with.

The physical parts of the club, buildings, and equipment, will require some attention over the summer months, (keeping water conservation in mind of course) and hopefully a working bee or two will help us get on top of several projects that need attention, as well as some maintenance and painting of the building. Auckland Council has required from us a number of plans over the months, and the latest relates to the building and any potential asbestos risk. These compliance costs will only increase in the days ahead, but we are addressing these, as they arise, and none have resulted in any major concerns. Looking to the future, and as many members may find attending physical meetings increasing difficult. I would like to explore the use of on-line (internet connected) virtual meetings as part of our overall strategy, either as part of, or replacing (should we return to lockdowns in 2021) our meeting programme. These might be a way we can connect with our more remote, or less mobile, members and potential members.

But mostly Thank you to all the members who continue to attend meetings, join nets or otherwise show your support for your radio club. Without you there would be no reason for us, so Thanks you, and please make your support, and ideas known. We need to hear from you, if we are to remain relevant to you.

Thanks for all your support over the last year.

73 de ZL1NUX

PAPAKURA RADIO CLUB INC – TREASURERS REPORT 2020

The club has had a relatively steady year though membership could be re encouraged back up to previous levels. The total of 29 consisted of 3 Honorary Life Members and 7 people in family memberships making a total of 19 paying full membership fees. We need to increase efforts to get our lapsed members to pay their subs.

Income from all sources apart from the CDEM Grant has fallen by 31% compared to the previous year. In simple terms we cannot sustain the club without the hall hire.

Hall hire decreased by 27% ($1015) and is now probably back at a more reasonable level as previously we had our normal hirers plus a few others. Income from interest has decreased by 28% due to the drops in interest rates. Income from donations fluctuates massively and we were lucky to get over $800 from the club sales day.

The Auckland Council Grant to cover our contribution toward CDEM has been maintained as part of the collective agreement with the Council.

Power costs have remained steady despite the reduced usage from Covid-19 lockdowns. This shows how much we are paying in fixed costs for supply relative to our small power consumption. We must remember that the air conditioning can also cool/de-humidify and that it is likely power consumption could increase during the summer at additional cost.

Depreciation costs reflect the overall loss of value that our assets incur as they get older. Our primary loss of value used to be the ICOM IC7410, the antennas. The largest loss of value is now occurring with the air conditioning units.

Repairs and maintenance increased dramatically with a major floor clean at $600, new fire extinguishers and some seat cushions. Typically, R&M operates around the $200 mark as some of the members look after the hall and our hirers are now cleaning after themselves so we don't have to pay a cleaner. The new AC units will require additional maintenance so we had better plan ahead and schedule an annual washdown, condenser cleaning, inside filter clean, etc.

The current levels of income and relative increase in expenses has meant no tax is payable and we will get a refund of our resident withholding tax. No refund is due from the imputation tax already paid.

All hirers are depositing hall hire direct to the club bank account. Davis Electrical are still holding a set of keys for casual users to collect.

We also have to think about the longer-term operation of the club. Our costs continue to rise with depreciation of the air-conditioning units now a significant factor and use during the summer months still an unknown especially as temperatures are now rising. In addition, we will need to wash down the hall to remove moss and consider a repaint at some stage.

Our hall hire rate also appears to be relatively low compared to other hire options around town so reconsideration of hire-rates should always be an annual consideration to ensure we keep ahead of our cost structures.

On behalf of the club, I wish to thank all the club members who continue to help out with our working bees and in cleaning and maintaining the clubrooms. Not only does this keep our costs down it also ensures we maintain a sense of community. In particular David ZL1DK and Ian ZL1AOX have been checking and cleaning as necessary.

David Wilkins ZL1MR
2020-10-18

AWARDS REPORT

No applications for awards were received this year.

HALL CUSTODIAN: Ian ZL1AOX.

Keys with Fred ZL1FAV at Davis Electric 38 Tironui Road.

The keys are issued from Fred's employers' premises (Davis Electrics) to whom we are very grateful, and the bookings are controlled by the Secretary.

The CDEM group has placed under our care a generator for the Papakura/Drury area.

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 Ian ZL1AOX. Thanks to all others for helping out. We thank the Healing Hands 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 CDEM have also held the occasional meeting during the year.

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

Ian ZL1AOX, Secretary, Papakura Radio Club Inc.
24 October 2020

2020 EXAMINATION ADMINISTRATION REPORT:

2020 has certainly been a strange year and I am sure we all want to put this year behind us and carry on. Before Covid 19 happened we had three candidates who took and passed the exam at the end of January 2020.
Congratulations to the following three candidates: -

- Dr Michael Enderby ZL4MDE
- William Van Weerd ZL1RVN
- Jessica Denby ZL1MTI

If you have not heard them already up on the air, please listen out for them and welcome them to the air waves. Well done and enjoy the hobby.

If you know of anyone who is interested and wanting to become a radio ham please to let me know or any of the committee and we can do the rest. Our contact details are always on the back of the Papakura Club's newsletter. Remember it's one of the safest ways to communicate.

73 de Rob ZL1RJS

Upcoming Projects:

Project and Activity Nights

We will be building some HF antennas for Drury, and planning some long wire 5 band antennas for Home Stealth use over upcoming project nights, these will include some experimental stealth and portable designs suitable for AREC, SOTA or POTA type activities, as well as general field or Home use.

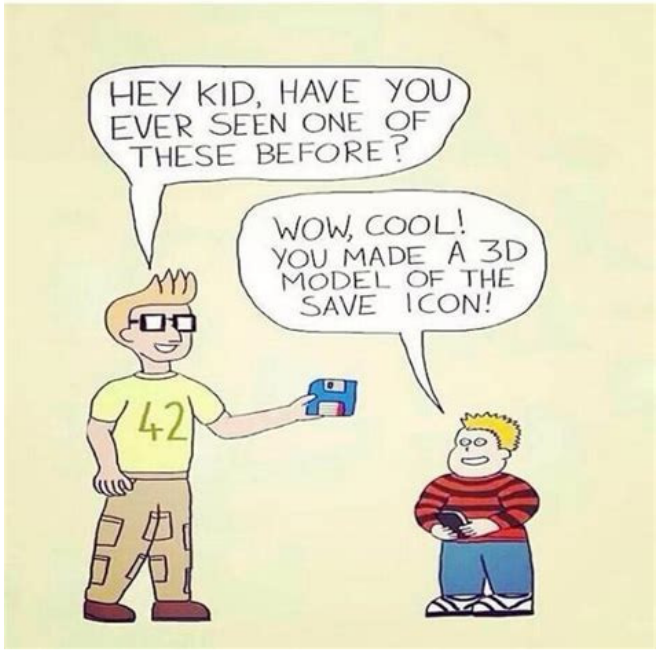
We will also be discussing some satellite antenna designs for working off the ISS or other satellites.

And we have a possible DC power distribution project, and a Power meter project. These will be subject to interest

Upcoming Activities:

Wednesday 4 November – General Meeting & AGM
Wednesday 11 November – Project Night
Wednesday 18 November – Committee Meeting
Wednesday 25 November – Activity Night

Please listen for updates on the Sunday morning club nets
(See last page for frequencies and times)



DX Calendar October 2020

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
TX0T																		VK4DX/P											
V31TA																				J8/UR5BCP									
																	FS/F8AAN												
	8Q7RM																												
YI9/IU5HWS																													
7Q6M																													
JG8NQJ/JD1																													

Some Notable Spots

8Q7RM Kandolhu Island Maldive

Remo, HB9SHD will be active as 8Q7RM from Kandolhu Island, Maldives, IOTA AS - 013, 2 - 29 November 2020.
He will operate on 160 - 6m, SSB, Digital modes, Slow CW

YI9/IU5HWS Iraq
Giorgio, YI/IU5HWS will be active from Iraq starting 30 July - 30 November 2020.
He is planning to operate on 40, 20, 10m.

7Q6M Malawi
Dan, K6ZO will be active again as 7Q6M from Malawi, until Mid December 2020.
He will operate on HF Bands

JG8NQJ/JD1 Marcus Island Minami Tori Shima Islands

Take, JG8NQJ will be active again as JG8NQJ/JD1 from Marcus Island, IOTA OC - 073, Minami Torishima, from 15 October 2020 to mid January 2021.
He will operate on HF Bands CW.

The Minami-Tori-Shima Island is a triangular shaped island in the northwest Pacific Ocean. Its name is Japanese and means 'Southern Bird Island'. It is also known by its other name of Marcus Island.

UPCOMING CONTESTS – OCTOBER 2020

Date-Time		Date-Time		Bands	Contest Name	Mode	Exchange	Sponsor's Website
1	0000	1	0400	3.5-14	North American SSB Sprint Contest	Ph	Other's call, your call, serial, name, SPC	ssbsprint.com/rules
1	0600	1	0859	3.5, 7	Silent Key Memorial Contest	CW	RST, ITU zone or SK call you wish to recognize	www.skmc.hu/en
1	1400	4	0800	1.8-144	Classic Exchange, CW	CW	Name, RST, SPC, rig	www.classicexchange.org
1	1500	1	1800	3.5-28	High Speed Club CW Contest	CW	RST, mbr or "NM"	www.highspeedclub.org
2	0000	2	0100	3.5-14	K1USN Slow Speed Test	CW	Max 20 WPM; name, SPC	www.k1usn.com
2	2000	2	2130	3.5	RSGB 80-Meter Autumn Series, Data	Dig	RST, serial	www.rsgbcc.org/hf
3	0100	3	0159	1.8-50	Worldwide Sideband Activity Contest	Ph	RS, age group (OM, YL, or youth)	wwsac.com/rules.html
3	0200	3	0400	3.5-28	ARS Spartan Sprint	CW	RST, SPC, power	arsqrp.blogspot.com
4	1700	4	2000	144	VHF-UHF FT8 Activity Contest	Dig	4-char grid square	ft8activity.eu/index.php/en
4	2000	4	2100	3.5	UKEICC 80-Meter Contest	Ph	6-char grid square	ukeicc.com/80m-rules.php
5	1800	5	2200	28	NRAU 10-Meter Activity Contest	CW Ph Dig	RS(T), 6-char grid	www.nrau.net
5	2000	5	2200	1.8-50	SKCC Sprint Europe	CW	RST, SPC, name, mbr or power	www.skccgroup.com
7	0500	7	1200	3.5-28	IPARC Contest, CW	CW	RST, serial, "IPA" if member	www.iparc.de
7	1200	8	1200	1.8-28	Ukrainian DX Contest	CW Ph	RS(T), 2-letter oblast if Ukraine	urdxc.org/rules.php?english
7	1200	8	2359	1.8-50	SKCC Weekend Sprintathon	CW	RST, SPC, name, mbr or "none"	www.skccgroup.com
7	2100	9	0300	1.8-28	ARRL November Sweepstakes, CW	CW	Serial, precedence (Q/A/B/U/M/S), your call, check (year licensed), ARRL/RAC section	www.arrl.org/sweepstakes
7	2300	15	2300	1.8-14	AWA Bruce Kelley 1929 QSO Party	CW	RST, name, QTH, equipment year, rig type, power	antiquewireless.org
8	0500	8	1200	3.5-28	IPARC Contest, SSB	Ph	RST, serial, "IPA" if member	www.iparc.de
8	0800	8	1200	All	EANET Sprint	CW Ph Dig	RS(T)	fediea.org/news/?news=20201108
9	0000	9	0100	3.5-14	K1USN Slow Speed Test	CW	Max 20 WPM; name, SPC	www.k1usn.com
9	0100	9	0300	1.8-28	4 States QRP Group Second Sunday Sprint	CW Ph	RS(T), SPC, mbr or power	www.4sqrp.com
10	0100	10	0159	1.8-50	Worldwide Sideband Activity Contest	Ph	RS, age group (OM, YL, or youth)	wwsac.com/rules.html
11	1700	11	2000	432	VHF-UHF FT8 Activity Contest	Dig	4-char grid square	ft8activity.eu/index.php/en
11	2000	11	2130	3.5	RSGB 80-Meter Autumn Series, SSB	Ph	RS, serial	www.rsgbcc.org/hf
14	0000	15	2359	3.5-28	WAE DX Contest, RTTY	Dig	RS, serial	www.darc.de/der-club/referate/referat-conteste/worked-all-europe-dx-contest/en
14	0000	16	2359	1.8-7	PODXS 070 Club Triple Play Low Band Sprint	Dig	RST, SPC	www.podxs070.com
14	0001	15	2359	28	10-10 International Fall Contest, Digital	Dig	Name, mbr or "0," SPC	www.ten-ten.org
14	0700	15	1300	3.5-28	JIDX Phone Contest	Ph	RST, JA prefecture or CQ zone	www.jidx.org/jidxrule-e.html
14	1200	15	1000	50-1296	SARL VHF/UHF Analogue Contest	CW Ph	RS(T), 6-char grid	www.sarl.org.za
14	1200	15	1200	1.8-28	OK/OM DX Contest, CW	CW	RST, 3-letter OK/OM district code or serial	okomdx.crk.cz
14	1900	16	0500	1.8-432	CQ-WE Contest	CW Ph Dig	Name, location code, years of service	cqwe.cboh.org/rules.html
15	1300	15	1700	3.5, 7	Homebrew and Oldtime Equipment Party	CW	RST, serial, class	www.qrpcc.de/contestrules
15	2300	16	0100	1.8-28	Run for the Bacon QRP Contest	CW	RST, SPC, mbr or power	qrpcontest.com/pigrun
16	0000	16	0100	3.5-14	K1USN Slow Speed Test	CW	Max 20 WPM; name, SPC	www.k1usn.com
16	2000	16	2130	3.5	RSGB FT4 Contest Series	Dig	4-char grid	www.rsgbcc.org/hf
17	0100	17	0159	1.8-50	Worldwide Sideband Activity Contest	Ph	RS, age group (OM, YL, or youth)	wwsac.com/rules.html
19	0130	19	0330	3.5-14	NAQCC CW Sprint	CW	RST, SPC, mbr or power	naqcc.info
20	1600	20	2200	3.5	YO International PSK31 Contest	Dig	RST, serial, YO county or country	www.yo5crq.ro/Rules.htm
21	1200	22	1200	3.5-28	LZ DX Contest	CW Ph	RS(T), 2-letter LZ district or ITU zone	lzdx.bfra.org/rulesen.html
21	1600	21	2359	1.8	All Austrian 160-Meter Contest	CW	RST, serial, OE district or serial	www.oevsv.at
21	1700	22	0100	1.8	REF 160-Meter Contest	CW	RST, serial, department code	concours.r-e-f.org/contest
21	1900	21	2059	1.8-50	Feld Hell Sprint	Dig	RST, mbr, SPC, grid	sites.google.com/site/feldhellclub
21	1900	21	2300	1.8	RSGB 1.8-MHz Contest	CW	RST, serial, district code (if UK)	www.rsgbcc.org/hf
21	2100	23	0300	1.8-28	ARRL November Sweepstakes, Phone	Ph	Serial, precedence (Q/A/B/U/M/S), your call, check (year licensed), ARRL/RAC section	www.arrl.org/sweepstakes
23	0000	23	0100	3.5-14	K1USN Slow Speed Test	CW	Max 20 WPM; name, SPC	www.k1usn.com
24	0100	24	0159	1.8-50	Worldwide Sideband Activity Contest	Ph	RS, age group (OM, YL, or youth)	wwsac.com/rules.html
25	0000	25	0200	1.8-28	SKCC Sprint	CW	RST, SPC, name, mbr or power	www.skccgroup.com
25	2000	25	2100	3.5	UKEICC 80-Meter Contest	CW	6-char grid square	ukeicc.com/80m-rules.php
26	2000	26	2130	3.5	RSGB 80-Meter Autumn Series, CW	CW	RST, serial	www.rsgbcc.org/hf
28	0000	29	2359	50-1296	ARRL EME Contest	CW Ph Dig	Signal report	www.arrl.org/eme-contest
28	0000	29	2359	1.8-28	CQ Worldwide DX Contest, CW	CW	RST, CQ zone	www.cqww.com
30	0000	30	0100	3.5-14	K1USN Slow Speed Test	CW	Max 20 WPM; name, SPC	www.k1usn.com

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

It was sad to hear of the passing of Sean Connery (25 August 1930 – 31 October 2020) aged 90. Sir Sean Connery died peacefully in his sleep, as his home in the Bahamas. His son said that he had been "unwell for some time". The Scottish actor was best known for his portrayal of James Bond, but his versatility was showcased in many films over a 50+ year career

In the movie "The Hunt for Red October" Captain Marco Ramius (played by Sean Connery) explains why he and his officers chose to defect to the USA and restore the balance of power between east and west with the immortal words *"A little revolution now and then is a healthy thing, don't you think?"* and while I am not suggesting a bloody coup to seize power... *well maybe not yet*... I think the spirit of the statement is timely as the year comes to its inevitable end.

It's November, AGM time, Almost the end of 2020, and for many of us, a year that we would struggle to find much good to say about it, but 2021, while holding some promise, is unlikely to bring much in the way of positive change, The virus will still be everywhere, the border will stay shut, jobs will be in short supply and the country will stay in recession. These are not predictions; they are things we as individuals and clubs, have to be ready for, as New Zealand is a very small country, with very little control over what happens in the rest of the world, and in a worldwide recession, we are increasing an unimportant market in a forgotten corner of the world.

In the last few days we have seen how shipping companies have reduced the number of vessels stopping of in NZ, choosing to bypass our strict borders and low freight volumes to save fuel and time. When we add the increased air freight costs, this will impact the hobby in terms of equipment and parts supply. Most of us are already importing equipment and parts, primarily from China, so these will take longer to get here, and costs will only rise. So, it's likely second hand equipment, repaired equipment, and ex-commercial items will continue to be an important part of the hobby in the days and even years ahead, and making certain homebrew gear has a place in the future of Ham ethos

"A little revolution now and then is a healthy thing, don't you think?"

This lesson came home to me last weekend when I went to install uplift the solar panels for the campervan. This final (well almost final, Ann-Maree also needed a bike rack) item of equipment was quoted and ready to uplift; except, the final measure showed it didn't fit. The 400 Watt panel would not work with the current skylights, so a 300 watt would have to be fitted instead, Except they were sold out, and stock was weeks (up to 6 weeks) away, But 2x 150Watts could do the job .... Yep sold out too. Finally were settled on a 2 x 220 watt narrow panels and a 40 amp controller, But with the list of extras pushing the bill up by about $300 above the original price. Still we could go ahead.

The final install is great, the product works very well, and the skylights all open unobstructed ... (and yes the bike rack is fitted too) and the camper is ready for a remote self contained holiday away. Of course the flexibility and making the best of what we have is not new to many Kiwis. The number 8 wire repair mentality was a mainstay of my early farming life, but over time we have been spoilt for choice, but with that choice came planned obsolescence, and as our manufacturing capacity moved off-shore, so did our ability to find enough parts to make do with, so we had to use the exact part, and more often than not, need computer degree to tell the repaired item it was working again. Will the art of repair return ... maybe not as prolific as I might hope, But ...

"A little revolution now and then is a healthy thing, don't you think?"

With the solar cycle at minim, many found IRLP. Echolink DMR, D-Star, All-Star or other forms of digital communication (or at least digital linking) a method of keeping in touch, Nice if you have it, and of course, meeting held by zoom or teams became a norm for those of us still working, all this constant talking sure took some of the novelty of a chat away from the hobby, but the morning and evening commute became a highlight, even if I was sitting at home and working from the office/shack. Some took up new hobbies or learnt a new skill, and we got better at virtual meetings, but it also showed us that we are still in many ways dependent on old, physical, ways of doing stuff, as the world changes, banking and payments become virtual, Meeting are virtual, and payment made electronically, are we ready for the digital revolution?

"A little revolution now and then is a healthy thing, don't you think?"

The Challenges of 2020 haven't all been work or radio, some have been very personal, A new baby, and then complications while the lockdowns were going on, showed that while one heath crisis was being averted, others were made much harder, and potentially even more serious as routine health care was put on hold. I have no doubt it could have been worse, but for anyone left in limbo and uncertainty, or having to watch a new mother and her baby first placed in a "Covid" ward ... Just in case ... then forced to wait for care as ... it's not "Covid", did little to restore my waning faith in our health system, and my own eye care seems to remain a distant dream. Sadly I don't see the system getting a shake-up, rather more money will thrown into the same systems in the hope that if we do more of what isn't working now, it will suddenly work. A little revolution might be required.

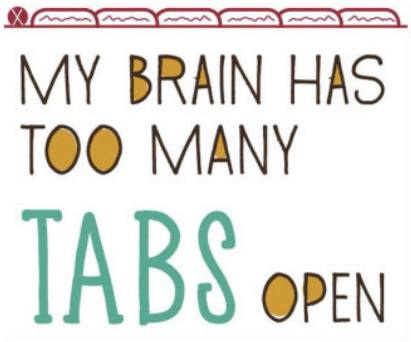
"A little revolution now and then is a healthy thing, don't you think?"

So as I draw 2020 to a close, and send out the second to last newsletter for the year, I have to wonder ... has 2020 been a year of revolution or revelation? It's not how well we are doing that matters, or of we are coping, we have to look to see if we are positioned for thriving when we get move forward, how can we arise from this year of hell, refined by the fire, and rising like a phoenix.

How do we re-invent ourselves for the years ahead so we are able to meet the challenges of this strange new world, and then use them to open up a whole new way of enjoying the hobby, be it outdoor activations like SOTA or POTA, or chasing these from home, Maybe its foxhunting, or some other form of challenge, Maybe it's in the satisfaction of saying "I made that"

Revolutions make us uncomfortable, and maybe that's a good thing

The only constant in the universe is change, but in the last decade, it's not been the change itself, but rather its pace that makes it hard to follow or worse predict. It's not hard to imagine, in the age of DSP and screens in every radio, that video will be part of our hobbies future, not SSTV, but real time streaming, But will that add value, or detract? And this is the last part of considering paradigm shifts, some technologies get replaced. NASA is talking up a 4G network on the moon to improve space communications, but in reality, there are much better,, cheaper and simpler solutions, so it's unlikely to happen, but the reason for the discussion is that data is not more important than audio, and the communications needs of this decade are different to the communication needs of the 1970's when we last landed on the moon. As data becomes king, how will our hobbies adapt?



I am looking forward to summer and getting out into parks, I am keen on some POTA activations and getting to places I have not yet been, In reviewing what worked for other POTA ops, I was stunned to see how many were using FT8 not voice, a computer on a bench seems to be replacing the microphone, While I don't see this in my future, will this make me a dinosaur?

The WWCQ contest is proof that voice is not going away, the personal touch of hearing persons, not just making the contact, still has a place in the hobby, so I'll pick up the mic and call CQ, and take all the contacts I can get, not trendy, just fun.

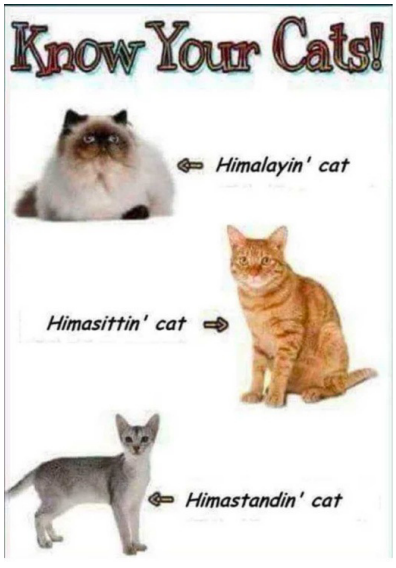
And that's why I have high hopes for the hobby. It doesn't matter if you buy rigs and aerials and operate, or if you build everything and love experimenting, or if your somewhere in the middle. It doesn't matter if you use D-Star, DMR, VHF FM UHF, HF Satellite (maybe even SSTV listening from the ISS) or working on the SHF bands. This hobby is big enough to satisfy everyone's needs, It's not "A La Carte", It's a smorgasbord, and you can take as much, or a little as you like. Just so long as you enjoy it!!!

SO do it your way – Take the leap of faith – and have fun.

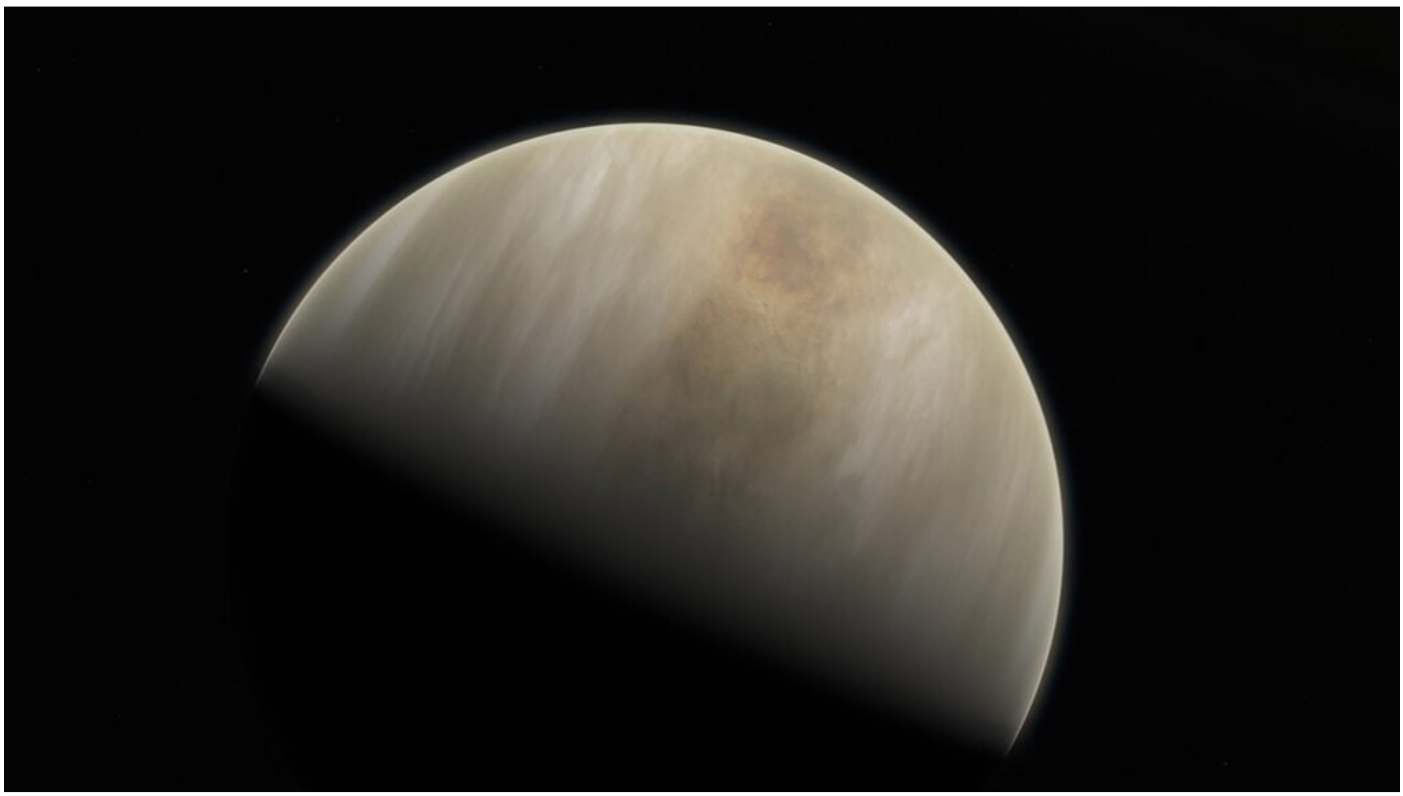
Let stop doing what we know, or what we feel we should, and start doing what makes us happy, and what helps enjoy all that this great hobby can provide. If we're not doing it for fun... why are we doing it?

"Viva La Revolution"

73 Gavin – ZL1NUX



DOUBT OVER A 'SIGNS OF LIFE' ON VENUS SHOW HOW SCIENCE SHOULD WORK



It was one of those "big, if true" stories. In September, scientists reported that Venus' atmosphere seems to be laced with phosphine, a possible sign of life.

Now there's increasing emphasis on the "if." As scientists take fresh looks at the data behind the Venus announcement, and add other datasets to the mix, the original claim of inexplicable amounts of phosphine is being called into doubt. And that's a good thing, many scientists say.

"It's exactly how science should work," says planetary scientist Paul Byrne of North Carolina State University in Raleigh, who studies Venus but was not involved in any of the phosphine papers. "It's too early to say one way or the other what this detection means for Venus."

Here's a closer look at efforts to get from "if" to "true:"

THE BIG CLAIM

On September 14, astronomer Jane Greaves of Cardiff University in Wales and colleagues reported that they had seen signs of phosphine in Venus' clouds using two different telescopes. The phosphine seemed to be too abundant to exist without some kind of source replenishing it. That source could be strange microbes living in the clouds, or some weird unknown Venusian chemistry, the team said.

Greaves and colleagues first spotted phosphine with the James Clerk Maxwell Telescope in Hawaii and followed up with the powerful ALMA telescope array in Chile. But those ALMA data, and particularly the way they were handled, are now being called into question.

READING THE DATA: REAL MOLECULES OR RANDOM WIGGLES?

The key Venus observations were spectra, or plots of the light coming from the planet in a range of wavelengths. Different molecules block or absorb light at specific wavelengths, so searching for dips in a spectrum can reveal the chemicals in a planet's atmosphere.

Phosphine showed up as a dip in Venus' spectrum at about 1.12 millimeters, a wavelength of light that the molecule was thought to be absorbing. If Venus' spectrum could be drawn as a straight line across all wavelengths of light, phosphine would make a deep valley at that wavelength.

But real data are never that easy to read. In real life, other sources — from Earth's atmosphere to the inner workings of the telescope itself — introduce wiggles, or "noise," into that nice straight line. The bigger the wiggles, the less scientists believe that the dips represent interesting molecules. Any particular dip might instead be just a random, extra-large wiggle.

That problem gets even worse when looking at a bright object such as Venus with a powerful telescope like ALMA, says Martin Cordiner, an astrochemist at NASA's Goddard Space Flight Center in Greenbelt, Md. Cordiner uses ALMA to observe other objects in the solar system, like Saturn's moon Titan, but was not involved in the Venus work.

"The reason those bumps and wiggles are here at all is because of the intrinsic brightness of Venus, which makes it difficult to get a reliable measurement," Cordiner says. "You could think of it as being dazzled by a bright light: If there's a bright light in your vision, then your ability to pick out fainter details becomes diminished."

So astronomers do a few different things to smooth out the data and let real signals shine through. One strategy is to write an equation that describes the wiggles caused by the noise. Scientists can then subtract that equation from the data to highlight the signal they're interested in, like fuzzing out the background of a photo to let a portrait subject pop. That's a standard practice, says Cordiner.

But it's possible to write an equation that fits the noise too well. The simplest equation one could use is just a straight line, also known as a first-order polynomial, described by the equation $y=mx+b$. A second-order polynomial adds a term with x squared, third-order with x cubed, and so on. Greaves and colleagues used a twelfth-order polynomial, or an equation with twelve terms (plus a constant, the $+b$ in the equation), to describe the noise in their ALMA data.

"That was a red flag that this needed to be looked at in more detail, and that the results of that polynomial fitting could be untrustworthy," says Cordiner. Going all the way out to the power of 12 could mean a researcher subtracts more noise than is truly random, allowing them to find things in the data that aren't really there.

To see if the researchers were a little overzealous in their polynomial fitting, astrophysicist Ignas Snellen, of Leiden University in the Netherlands, and colleagues reapplied the same noise reduction recipe to the ALMA data on Venus and found no statistically significant sign of phosphine, then the researchers tried the same noise filtering on other parts of Venus' spectrum, where no interesting molecules should be found. They found five different signals of molecules that aren't really there.

"Our analysis … shows that at least a handful of spurious features can be obtained with their method, and therefore [we] conclude that the presented analysis does not provide a solid basis to infer the presence of [phosphine] in the Venus atmosphere," the team wrote.

'This is just what science looks like.'

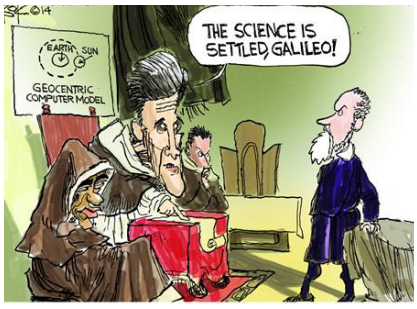
There are still ways for Venus' phosphine to pull through. If it varies with time, for instance, it might be there some of the times that astronomers look and not at others. It's too early to invoke that scenario, though, Cordiner says. "There's no point of talking about the time variability of a signal if it isn't there."

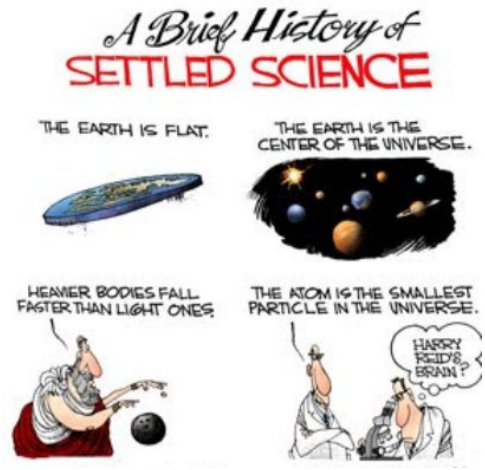
But this is not a crisis, says Clara Sousa-Silva, an astrochemist at the Harvard-Smithsonian Center for Astrophysics in Cambridge, Mass., and a coauthor of the original paper. Other groups challenging the finding "is completely normal and what I expected (nay, hoped) would happen," she wrote in an e-mail. "This is usually a phase of a project that I enjoy, and I am hoping people will realize this is just what science looks like."

The silver lining in all of this is that it's gotten people excited about Venus, says Byrne, who is a member of NASA's Venus Exploration Analysis Group.

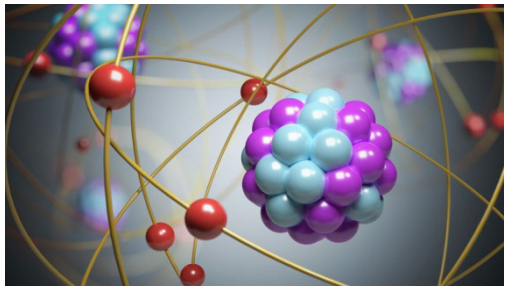
"These papers provide much value and a needed assessment of these extraordinary claims," he says. "If nothing else, it has shone a light on just how little we understand about Venus. And the only way we get those answers is if we go to Venus."

Science is not about showing that we have the exact answers, as we almost never do, rather it's about seeing what's wrong, and figuring out why? The questions must never stop, the science must never be "Settled"





Galileo's famous gravity experiment work even with single atoms



Different types of atoms fall with the same acceleration due to gravity

According to legend, Galileo dropped weights off of the Leaning Tower of Pisa, showing that gravity causes objects of different masses to fall with the same acceleration. In recent years, researchers have taken to replicating this test in a way that the Italian scientist probably never envisioned — by dropping atoms.

A new study describes the most sensitive atom-drop test so far and shows that Galileo's gravity experiment still holds up — even for individual atoms. Two different types of atoms had the same acceleration within about a part per trillion, or 0.0000000001 percent, physicists report in a paper in press in *Physical Review Letters*.

Researchers compared rubidium atoms of two different isotopes, atoms that contain different numbers of neutrons in their nuclei. The team launched clouds of these atoms about 8.6 meters high in a tube under vacuum. As the atoms rose and fell, both varieties accelerated at essentially the same rate, the researchers found.

In confirming Galileo's gravity experiment yet again, the result upholds the equivalence principle, a foundation of Albert Einstein's theory of gravity, general relativity. That principle states that an object's inertial mass, which determines how much it accelerates when force is applied, is equivalent to its gravitational mass, which determines how strong a gravitational force it feels. The upshot: An object's acceleration under gravity doesn't depend on its mass or composition.

But physicists hope to improve such atom-based tests in the future, for example by performing them in space, where objects can free-fall for extended periods of time. An equivalence principle test in space has already been performed with metal cylinders, but not yet with atoms.

So there's still a chance to prove Galileo wrong – Just not yet

Lego may take hundreds of years to break down in the ocean

If you've ever had the misfortune of stepping on a Lego, you know the plastic building blocks have absolutely no give. Now, scientists have discovered another unpleasant consequence of the toys' indestructibility: A single Lego could take hundreds of years to break down in the ocean.

Prior research has shown that plastic water bottles take decades to break down in the ocean. But since many plastic components used to make electronics and other consumer products are closer in thickness and sturdiness to Lego bricks than water bottles, Turner suspects the several-hundred-year timescale may be more representative of plastic degradation overall in seawater.

But perhaps, before we ban LEGO, maybe we should keep it in the toy box, or if you need to get rid of it, May I suggest an op-shop over a landfill. Lego is way more re-usable than a plastic bottle.

Just another reason to think before you through it.

NASA's OSIRIS-REx survived its mission to grab a piece of an asteroid

If all goes well, the NASA spacecraft will return the samples from Bennu to Earth in 2023

NASA's OSIRIS-REx spacecraft is a cosmic rock collector. Cheers erupted from mission control at 6:12 p.m. EDT on October 20 as scientists on Earth got word that the spacecraft had gently nudged a near-Earth asteroid called Bennu, and grabbed some of its rocks to return to Earth.

OSIRIS-REx arrived at Bennu in December 2018, and spent almost two years making detailed maps of the 500-meter-wide asteroid's surface features and composition. Observations from Earth suggested Bennu should be smooth and sandy, but when OSIRIS-REx arrived, it found a treacherous, rocky landscape.

The team selected a relatively smooth patch in a crater named Nightingale. The spot was not without hazards, though — the team was so worried about a particularly large rock nearby that they named it "Mount Doom".

Luckily, the spacecraft did not need to fully land in the crater to complete its mission. As it hovered just above the surface, OSIRIS-REx reached out a robotic arm with an instrument called TAGSAM at the end, for Touch-And-Go Sample Acquisition Mechanism. The instrument tapped the asteroid lightly for six seconds, and released a burst of nitrogen gas to disturb the surface dust and pebbles. Once those small rocks were lofted, some were blown into the sample collector.

Because signals from Earth took 18½ minutes to reach Bennu, the spacecraft performed the sampling sequence autonomously. When the mission team got the signal that the spacecraft had finished its job and retreated to a safe distance from Bennu, team members pumped their arms in the air, cheered and sent each other socially distant high-fives and hugs.

OSIRIS-REx is not the first spacecraft to grab samples from an asteroid. That distinction goes to Japan's Hayabusa mission, which brought back grains of asteroid Itokawa in 2010 . An encore to that mission, Hayabusa2, collected samples of asteroid Ryugu last year, and is on track to land in Australia in December.

But OSIRIS-REx has collected much more material than Hayabusa2 did. Hayabusa2 hoped to collect 100 milligrams, although Hayabusa2's scientists have no way to know how much material it actually collected until the spacecraft returns to Earth. OSIRIS-REx aimed for a minimum of 60 grams.

Images that the spacecraft took of itself first suggested that OSIRIS-REx easily cleared that bar, snagging an estimated 400 grams. The sample collector was so full of rock and dust that small asteroid particles were escaping into space, the team reported on October 23. Then, on October 29, the team announced that they actually think the collector was full to capacity when it pulled away from Bennu, which means it carried about two kilograms of material.

If the team decides to go back for a second sample, the spacecraft won't return to Nightingale crater, said project manager Rich Burns of NASA's Goddard Space Flight Center in Greenbelt, Md., at the October 21 news conference. Any second attempt would touch down in a backup site called Osprey, and would happen in January. OSIRIS-REx will return to Earth in 2023, where scientists will analyze the rocks in hopes of unlocking details of the history of the solar system and the origins of water and life on Earth

Pretty cool way to play space tag, Bit pricey for me.

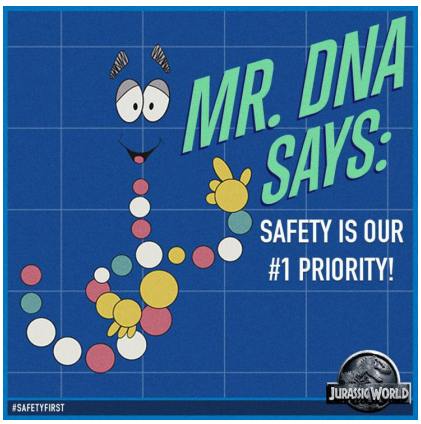
MORE DNA FOUND, WHERE IT SHOULD NOT BE

Genetic evidence puts Denisovans on the Tibetan Plateau from 100,000 to 60,000 years ago. Mysterious, now-extinct members of the human lineage called Denisovans lived at the roof of the world for possibly 100,000 years or more.

Denisovan mitochondrial DNA extracted from sediment layers in Baishiya Karst Cave on the Tibetan Plateau indicates that these humanlike folk inhabited the high-altitude site roughly 100,000 years ago and again around 60,000 years ago, say geoarchaeologist Dongju Zhang of Lanzhou University, China, and her colleagues. These are the first examples of Denisovan DNA found outside of Siberia's Denisova Cave.

Mitochondrial DNA, typically inherited from the mother, provides a narrower view of a population's evolutionary past than nuclear DNA, which is inherited from both parents. Zhang's group has yet to find Denisovan nuclear DNA in Baishiya Karst Cave sediment. Denisovan genetic evidence remains sparse, But evidence of Denisovan DNA that has been inherited by people today suggests that Denisovans ranged from the frigid Tibetan Plateau to tropical Southeast Asia. Given their wide Asian distribution, Denisovan populations developed a range of genetic traits and cultural behaviors.

The biggest problem with the puzzle is that DNA is supposed to be very vulnerable. It breaks down in sunlight and water, and there are enzymes that naturally destroy it. The technique of DNA sampling is less than 20 years old, but has become standard practice the world over. It has yielded many surprises, but not only has DNA been recovered from 70,000 year old Neanderthals, it has even been found in a 70 Million year old dinosaur fossil, while there are risks of cross contamination with very small samples, the presence of the DNA is making life easier for geneticists, and harder for fossil history.



"Jurassic Park" might have been a book/Movie, but we now have enough material to clone at least a mammoth and a sabre tooth tiger. Now it's the questions of should we, and will we?

SEEN OR HEARD AROUND THE SCENES

SAVE THE DATE 'H NIGHT' CONTEST

"H Night" is a commemorative contest, established after the return of Amateurs to the air following the second World War. All amateur activity was banned in 1939 at the outbreak of the war in Europe.
On December 8th, 1945 amateurs were at last permitted to return to the air. This is also the anniversary of the attack on Pearl Harbour in 1941.

In recent years, Rob ZL2IW, a member of the Society for the Preservation of AM (SPAM), has reactivated this contest for AM stations. It commemorates all radio amateurs who gave their service, and some their lives, for us, in World War 2.

8 December 2020
Please put this date in your diary- and blow the dust off your AM rig- vintage or modern, all are welcome!
Rules will be similar to last year and will be published shortly on the NZART website, look under 'Activities' for "SPAM".

Many thanks
Martyn Seay ZL3CK

THE NEW ZEALAND RADIOGRAM 1941 – THE CABLE REVOLUTION.

I recently found this article in "The New Zealand Radiogram" published November 1941

"A newly developed telephone cable only 2 5/8 inches in diameter contains 4,242 separate telephone wires. It is said that a telephone pole higher than a 70 story building would be required to carry the same number of wires mounted on cross arms and separate knob insulators."

Today with modern digital technology one thread of fibre can carry up to 150,000 telephone connections.

Regards,
Graham ZL1AUG

STRAIGHT KEY NIGHT SET FOR SUNDAY 6 DECEMBER

It's time to dust off that old straight key and get ready for an hour of brass-pounding fun during Straight Key Night - Summer Edition.

This easy-going contest takes place from 9 to 10pm on Sunday 6 December on 80 metres.

There was an excellent turnout during the Winter edition in June, and operators enjoyed working with the new "QSY Rule" which kept everyone on the move. The QSY Rule will be back for the December event, along with the coveted "Solid Copy" certificate. Plus, there will be new awards for the youngest operator and the most "senior."

Rules and log sheets can be found at maritimeradio.org/skn

If you have questions, please email skn@maritimeradio.org

[ARC5] FALL 2020 CLASSIC EXCHANGE CW

The Fall CW Classic Exchange will take place Sunday Nov 1 14:00Z to Nov 2 08:00Z and Tuesday Nov 3 14:00Z to Nov 4 08:00Z.

The CX is a no-pressure contest celebrating the older commercial and Home Brew equipment that was the pride and joy of ham shacks many decades ago. The object is to encourage restoration, operation and enjoyment of this older Classic equipment. You need not operate a Classic rig to participate in the CX. You may use any rig in the contest although new gear is a distinct scoring disadvantage as your multipliers are directly related to the age of the equipment you use!

However, you can still work the "great ones" with modern equipment. Call: "CQ CX"

Suggested CW frequencies +/- QRM:

160M 1.810 **80M** 3.545 **40M** 7.045 **20M** 14.045 **15M** 21.045 **10M** 28.045 **6M** 50.095 **2M** 144.10

Listen up and down for stations using crystal control.

The bonus points this Fall are for Drake equipment.
Full details found here

Questions? Contact e-mail: K3MSB: myscupper@gmail.com
or K2RP: **k2rp@arrl.net**
73, Howie WB2AWQ/7
WB2AWQ@arrl.net

CHRISTMAS FUNCTION:

No I'm not wanting to become one of those stores that have started advertising Christmas sales, just a reminder that Papakura will be hosting the combined Christmas Dinner with Franklin, The committee has started looking into preparations, and with it being a local venue, maybe you should plan to attend for good food, good company and, hopefully, ending the year on a high note.

(Many probably wish we could put the trees up already)

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	146.625	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
updated	20:00	3.605	Br 80. Hibiscus Coast
updated	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	ZL1OA
	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	ZL2OA
	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 146.475 simplex.
3.755 MHz Sunday at 9.00am. Controller ZL1BNQ Richard Gamble. (Linked to 146.675 & 438.775)