

May Level 1 2021

INTERFACE

MONTHLY BULLETIN

MARLBOROUGH AMATEUR RADIO CLUB INC. P.O. BOX 432 BLENHEIM NZ

CLUB CALENDAR

- General Meeting;.....May 13, 1930hrs - EOC
- Social Group;.....May 20, The Vines, Redwood
- Committee Meeting; ..May 27, 1930hrs - EOC

BRANCH 22 NOTICES

1. Graeme McKay's presentation..... 13 May
2. Grant Simpson's meter accuracy workshop.. 10 June
3. Neville Marr's Home Brew Project 8 July
4. Helen Ashworth, guest speaker..... 12 Aug
5. Constructors Award 9 Sept



Editor: Caryl Simpson
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Website:
www.zl2ks.org.nz

VHF Mondays 1930 hrs
146.950MHz, 145.600MHz,
147.225MHz

Net Controller; Rob Carter, ZL2IW

VHF - USB Net Wednesdays 1930
144.150MHz



DIP FLAT SAR EXERCISE

L-R - Soren Low ZL1SKL Auckland, Graeme McKay ZL1BDS Blenheim,
Steve Davis ZL2UCX Christchurch National Training Manager, Dave Hadler ZL3TRX Christchurch,
Paul Rennie ZL2RE AREC Area Manager Tasman SAR

(Photo from Soren Low, AREC Auckland District Manager and passed on by Paul Rennie)

MARLBOROUGH AMATEUR RADIO CLUB GENERAL MEETING EOC 8th April 2021

Safety: Standard briefing.

Present: John Errington (chair), Stuart Watchman (secretary ring-in), Grant Simpson, Ken Hynds (treasurer), Bill Cousins, Don Jamieson, Ian Conway, Anthony Winter, Gerard van Antwerpen, Paul Rennie, Ron Harris, Bernie Lankshear, Helen Harris, Ron Harris, Chris Grant, Nick Batt, Graeme McKay.

Apologies: Don Laing and Ken Menzies

Correspondence: Letter with a cheque contribution for \$30 US received from a US user of the Brayshaw Park HF remote. He has been the QSL manager for three US amateurs in the Antarctic. Unfortunately the cost of cashing the cheque in NZ exceeds its value. John moved that the cheque be destroyed and a thank you email be sent, moved Grant Simpson, seconded Ken Hynds, carried.

Letter from NZ Post advising the fee for the club PO box will now be \$205 p.a. although we pay half of this as the box is shared with SAR.

Committee vacancy filled by secondment: Nick Batt has kindly agreed to fill the committee vacancy.

Neville Marr has offered to act as our social media co-ordinator which has been accepted by the committee

Finance:

General Account	11,826.64
Reserve Account	11,490.88
AREC Account	3,063.73
Total	26,381.25
Change from last month	(438.76) decrease
46 Members	

Events: Stuart gave a preliminary run down on the Grape Ride (April 24) and a brief explanation of the event for newer members. Chris Grant has been recruiting volunteers for this and it looks like we have enough. There will be a few changes this year and volunteers will be contacted about this, chiefly being a shift from roadside comms to operating from official vehicles.

Repeaters: Grant has been testing the newly configured Ward 560 gear from his home and it is operating well. He hopes to install it at Ward in this coming week. The batteries and solar controller will need reinstalling as well. If anyone can help please contact Grant Simpson.

Speaker Schedule: Neville Marr has offered to speak in July on his current home brew project and Gerard van Antwerpen is working on another speaker.

AREC: Paul reported no call-outs and that the annual SAREX is on at Dip Flat next week. Also, as reported in the latest Interface, CD is looking for volunteers on Thursday mornings to help with radio testing skeds from the EOC.

General Business

Bill proudly displayed the inter-branch trophy which we won back from Nelson at the recent Rai Valley BBQ. The trophy is based on the 813 tetrode valve/'thermatron' which Bill informed us is a magnificent example of thermionic perfection.

Stuart said that he will suggest to the committee that the club look at purchasing an addition Vertex VXR-9000 repeater and RC-210 repeater controller to have as a spares given that the current spares will be going into Kaikoura.

Meeting closed at 1955.

Followed by members reporting on a particularly useful tool or what is on their bench at the moment:

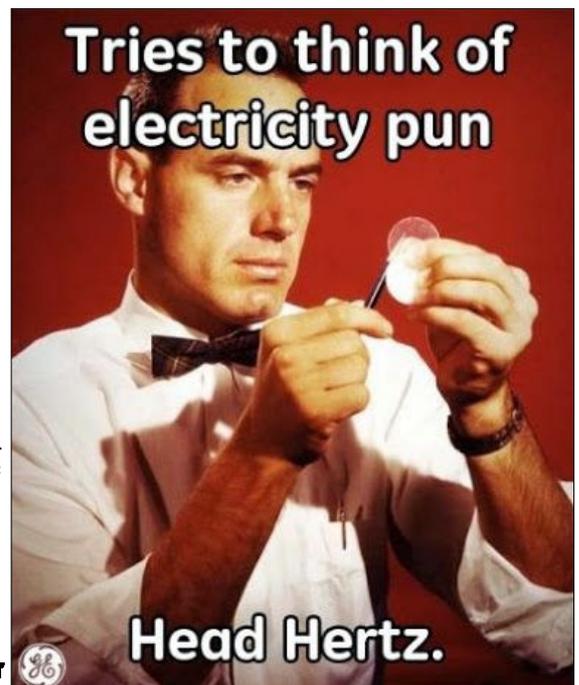
Bill: a pair of taper reamers that he purchased in the late 1960s to make chassis holes for an RSGB receiver design.

Ian: an SGC-230 automatic antenna coupler that he will be remote mounting at his dipole.

Gerard: a 3 way antenna switch with mechanical interlock, the design from a Dutch website.

John: a plastic pi-scaled flexible ruler that instantly tells you the diameter on a cylinder/tube when you wrap it around, and an infra-red camera he has been using to check on thermal load sharing of Peltier heater-coolers and thermal signatures of electronic devices, his house and himself.

Stuart: mentioned the zero-five flagpole antenna brand from the USA that he is looking at attempting to import for use as a vertical antenna at his new QTH.



**MARLBOROUGH AMATEUR RADIO CLUB COMMITTEE MEETING via Zoom
22nd April 2021 at 19.35 hours**

Present: John Errington (Chair), Bill Cousins, Grant Simpson, Don Laing, Ken Hynds, Nick Batt

Apologies: Paul Rennie, Graeme McKay

Health & Safety: Nothing to report

Correspondence:

Inward: Gerard van Antwerpen re offer by Helen Ashworth Navy talk

Agreed that Helen be requested to do both of her talks at August and October or November General meetings. **Action JE**

Outward: None

Finance: Total Membership 47 (+4)

Total funds \$26,381.25 (-\$324.02 from last Committee meeting)

VCC HamCram facility charge. DL advised that he had not been made aware of any charge pending and would consider it in lieu of MARC providing VCC with a PC and internet access.

Events

Grape Ride (24 April) - Stuart W is keeping everybody concerned via emails and appears to be under control. The Havelock temporary link using Remote Hams software crashed when a Windows 10 software update was installed that stopped the touch-screen control function. System is currently being rebuilt.

Repeaters & Systems:

- Weld Cone & Kaikoura

Respective repeaters been successfully bench tested end-to-end with only a couple of minor glitches. To test again next week and hopefully install Weld Cone repeater. GS only requires and has volunteers for two persons to assist as hut size restricts number of people who can physically access. **GS**

- Brayshaw Park

160m antenna - To raise at next AGM to ascertain interest **JE**

Speaker Schedule

May Graeme McKay Low orbit satellites or asteroids

June Grant Simpson Meter accuracy testing

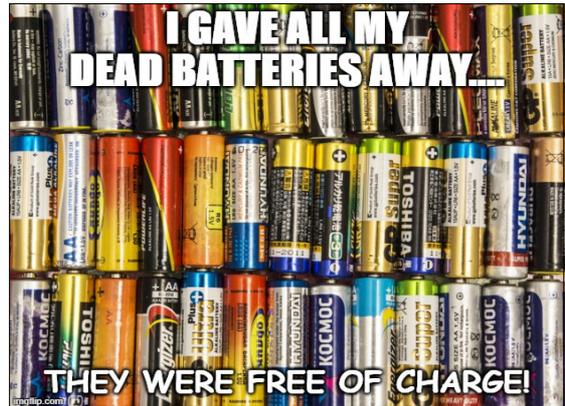
July Neville

Aug Helen Ashworth

Sep Construction Award

Oct Helen Ashworth or Graeme ??

Nov Helen Ashworth or Graeme ??



AREC

Paul & Graeme presently engaged at Dip Flat SAR exercise.

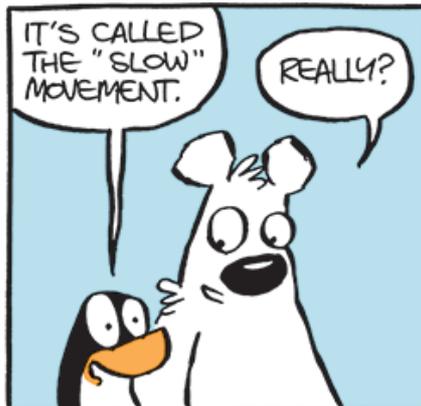
Don has been keeping an evening HF sked and all seems to be going well

General Business:

Revised Incorporated Society Legislation - JE advises that the current Incorporated Society Act is being revised and draft is currently open for submissions. Notably it will include legal requirements being imposed on Society Officers. JE will circulate a website link which will explain the highlights. **DL**

Meeting Closed: 19:55

Next Committee Meeting: 20th May 2021 (**NB: 1 week early than usual**)



SAREX at DIP FLAT

Once again Marlborough AREC were asked to support Christchurch AREC in providing communications for the Annual Police SAREX being held at Dip Flat over the week from 16-4-21, through till the 23-4-21.

For the week we had in attendance, Steve Davis, Christchurch, Dave Hadler, Christchurch, Soren Low, Auckland, Graeme McKay, Blenheim, Paul Rennie, Blenheim.

After meeting Soren at Woodbourne on the Friday Morning, we duly left for Dip Flat arriving there about 1300 hrs. Upon meeting up with the police person in charge, we decided not to erect antennas until the Christchurch group arrived as we were told Saturday was a spare day, unlike other years where we had to hastily erect antennas on the Friday afternoon as all of the police recruits usually tramp along the St Arnaud in their teams of 6 and descend down to the lake front at Rotoiti for pickup. Communications along this section was carried out using HF 5680. That meant that Saturday was going to be a rather easy day just completing the setup for the exercise which would start in a couple of days.

Tuesday came with all the police teams being assembled and issued their gear for 2 nights in the bush looking for "2 groups of missing people" who had been overdue hunters. Communications for the exercise were carried out using 2 VHF repeaters with a linking repeater in the middle, these were placed in position by some of the search teams along the area. When the teams were out of VHF range HF communications were used, being 5680 for the day and 3023 for the night. Thankfully HF was a lot better than 2 years ago when conditions were very difficult. The lost parties were duly located late on Wednesday afternoon with ALL teams being advised to move to a suitable pickup point using the Air Force NH90 helicopter, which was used very extensively during the whole week. The Thursday comms were mainly on VHF to all teams which gave us time to dismantle the HF Antenna setup and starting to pack up for an early departure on Friday.

All base personnel, comms included, were invited to have a, roughly 30 minute, flight in the helo. Our trip consisted of a flight south through the valley then up to the head of the Rainbow Valley where we all exited the helo for an official photo shoot. Then the flight back to base with all doors open. Rather draughty but the views were fantastic, an occasion NOT to be missed, there is some massive country out there.

A point we had to be aware of when erecting dipoles, was the downdraught from the helo when coming in to land. It creates something in the vicinity of 11 tonnes of downdraught, as loose items were blown about the area.

Thanks to Graeme who performed exceptionally well for his first SAREX, being dropped in the deep end.

Thanks also to Soren, who was suitably impressed with the setup, as in Auckland HF is not used, VHF only.

Thanks also to Steve and Dave from Christchurch.

Thanks must also go to Don Laing who was our base contact back home making use of the remote system for our skeds every night. Also thanks to ALL our families for their support.

Paul, AREC Area Manager, Tasman SAR.



NEWBIE MATT'S BEEN BUSY!

Matt, ZL4HZ, one of our recent HamCram successes, sent the following email to his fellow new Hams and gave permission for it to be reproduced here...

Hope you are well as we get into winter. I thought I might take the opportunity to come back to us group of "newbies" and share what I've been up to since getting my license.

The QSO count is slowly increasing with 16 individual call signs so far, ranging from Taranaki, Palmerston North, Wellington, Kaikoura and Christchurch. While my little 8W Baofeng UV82 has been effective, I have been captured by my new Anytone 878UV DMR. It's a 7W dual analogue & digital V/U handheld and (frankly) for something out of China is a brilliant little piece of equipment. Using it from my home near the mountain bike park on Taylor Pass road I am able to receive clearly from the Porirua DMR repeater and less so from the Wellington one on the South Coast. I have listened to conversations on the worldwide channel from the US, UK and off the coast of Africa. Last night I joined the Friday night sched on the ZL channel and was welcomed onboard by a few C/S for a brief group chat.

Given the limitations of the factory rubber duckies trying to shoot U&V over to the north Island from a low powered handheld I have made the time over the last few days to look up plans and build a dual-band U/V open stub antenna which I have mounted on the roof of our house. It's reasonably discrete and quite effective, allowing me to access the Wellington region VHF repeater (710) on Belmont, the National system (UHF) on 9875, again on Belmont, and the Porirua DMR repeater. This is where the value of digital has impressed me. With a signal reception in Porirua of -110 to -121 dBm I am able to have a perfectly clear conversation around the country and indeed around the world. I have not tried this on analogue through the National system and won't until I have a higher power output from a mobile unit, but I have been able to successfully work the national system from Port Underwood (and will try the Wither Hills this weekend) on 7W.

Understanding coax attenuation was really important for my antenna build. I was hoping for a 10m run of RG58, but with 3dB loss (halving the small 7W I have available!) it was unworkable. 5m however is fine. Nev Marr (ZL2BNE) who helped present the material on the Cram was very helpful in testing the efficiency on my antenna. It was pretty flat across the spectrum on both bands where I intend to use it. While not perfect, it's perfectly usable with SWRs of 1.6 UHF and 1.41 on VHF. So I figure that's OK for a first go at a home brew dualband antenna between islands!

Hope you're all going OK, happy to discuss anything from my journey above (so far!).



GRAPE RIDE 2021

This report has two parts, the event itself and the fun had in testing the portable repeater site a week prior.

Having skipped last year due to COVID it was all on this year.

This was the first year with the start/finish moved from the Forrest Estate Winery on SH6 to The Vines Village on Rapaura road. Approximately 1100 riders participated with a few of those doing the magnum two laps of the course starting at 0600. The numbers were slightly up on 2019 but well below the peak of around 2800 a few years ago.

We provided 6 self contained mobile operators in the official vehicles: lead for the main bunch and the speed bunnies, tail end for the main course, lead and tail for the shorter 43km course and the roving bicycle repair man. Over the last few years we have been reducing trackside personnel and we reduced further this year with operators only at the Picton transition, Momorangi and the Havelock transition. This year there were no motorcycle riders as the event organisers have decided that the risk of heavy machines in among the cyclists outweighs the benefits that they bring.

Ian and Don were at Momorangi and set up the transponder mat for the event organiser at the rest point there. Cyclists who have paid up for this have their time paused while there, they cross the transponder entering and leaving. It is an impressive piece of kit that telemeters via the cell network the times back to the main timing gear at the start finish to correct the riders' times.

The event went very smoothly this year and there were no riders transported to Wairau via ambulance, a record. Only two injuries presented to the Wairau emergency department later, another record. There was a hiccup with linking gear for the portable repeater back to 695 not operating so Grant had to relay messages from traffic on the portable repeater back to base from the Havelock transition on 695.

Base was located upstairs at the Vines Village and was much quieter than the base at Forrest Estate by being further away from any PA and not having foot traffic through the office we used there.

Thanks to all those that helped: Ron, Helen, Christine, Paul, John, Graeme, Neville, Matt, Anthony, Bill, Don, Ian, Grant and Chris with the organisation. Another nice donation from the organiser has been received.

REPEATER TEST SAGA

The 100 km course has an area with no local 2m repeater coverage from The Grove to a few km on the Blenheim side of Havelock. In the past we have located the 2 metre 6725 repeater (usually by Grant) well up the ridge above Cullens Point. Cullens Point is the lookout on Queen Charlotte drive about 3km from Havelock. The track up the ridge used to be maintained, as there was a TV translator located there, but now the track is deeply rutted and not passable for all except the most capable off road vehicles.

Looking at Google Maps, it looked like the repeater might still work OK from lower down the ridge so, a week before the event, I went with Ian ZL2BGL to test the repeater at that location. There is a walking track with a side track to a small lookout with a park bench which is where we set up the repeater for a test. ZL2TW backed his vehicle back down the access track to do the coverage test with Ian remaining at the repeater site. All went well until I backed into one of the deep ruts and became well and truly stuck. I couldn't open my driver's door! Ian walked back down and agreed that I was indeed stuck and took photos for the record. A phone call to the Havelock service station and in no time I was being towed out...twice. The very helpful guy from the service station took a photo as well. Oh the humiliation!

Coverage testing eventually got under way and proved that the much easier access site was Ok for the area we needed to cover. We left the repeater well hidden in the undergrowth and I brought the antenna and battery back the day prior to the event with Ian and Neville recovering it all the day after. On the return trips vehicles were not driven up the access track!

- Stuart ZL2TW



WARD REPEATER

On Tuesday the 4th of May, the Ward repeater was finally installed near its old site on Weld Cone near Ward. Some months ago the new mast and antennas, along with the hut and solar panels, were installed. The repeater has had a thorough check-over with all audio and rf levels checked. The controller firmware has been brought up to date and software changed to allow for the Kaikoura repeater to be linked in when it is installed.

Paul, ZL2RE, Graeme, ZL1BDS, Nick, ZL2NEB and Grant, ZL2BK arrived on site mid morning and started connecting the solar, regulator and batteries. The antenna cables were terminated and checked and the radio equipment bolted down on the bench.

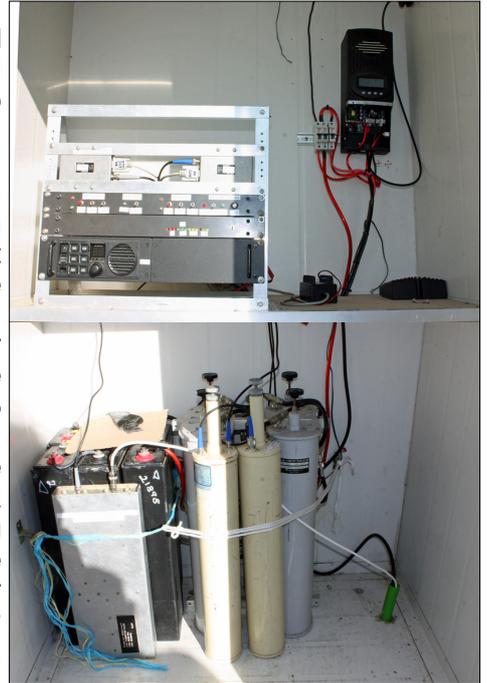
The first problem though was working out the wiring for the power system. Most of the cables were red, some with black tape, so great care was needed to ensure there would be no loss of the magic smoke when connected. It would have been safer to check with a multimeter, but that essential item was still on the work bench in Blenheim, along with the spare just in case it would be needed.

The batteries were connected and turned on. Fortunately, the solar regulator started and its display showed we had 12.5 volts from the battery. Turned the solar panels on and immediately had 13.4 volts at 15 amps charge displayed. Success and no smoke escaped.

The first antenna cable was then tested and found to be faulty. This is the antenna mounted on the solar panel frame for the link to The Ned. Not a good start so far. The next antenna tested was the link receive facing Kaikoura. This was ok so it was then used for The Ned link. Finally the repeater antenna tested ok. All filters were then connected up and power applied to the radio. Nothing worked. Close inspection of the power connector for the repeater showed it was not making a good connection. A quick repair and we had RF at last.

Tried a handheld and the repeater and link LEDs were indicating they were transmitting. We could not hear The Ned transmitting though. A call through The Ned appeared to work. After more tests and another quick inspection resulting in switching the link transmitter back to normal (it had been bumped to the isolate position) we had success at last.

The batteries and filters were temporarily tied to the walls and everything else back in the cars. Testing on the way back to Blenheim showed the coverage was very similar to how we remembered from the original site.

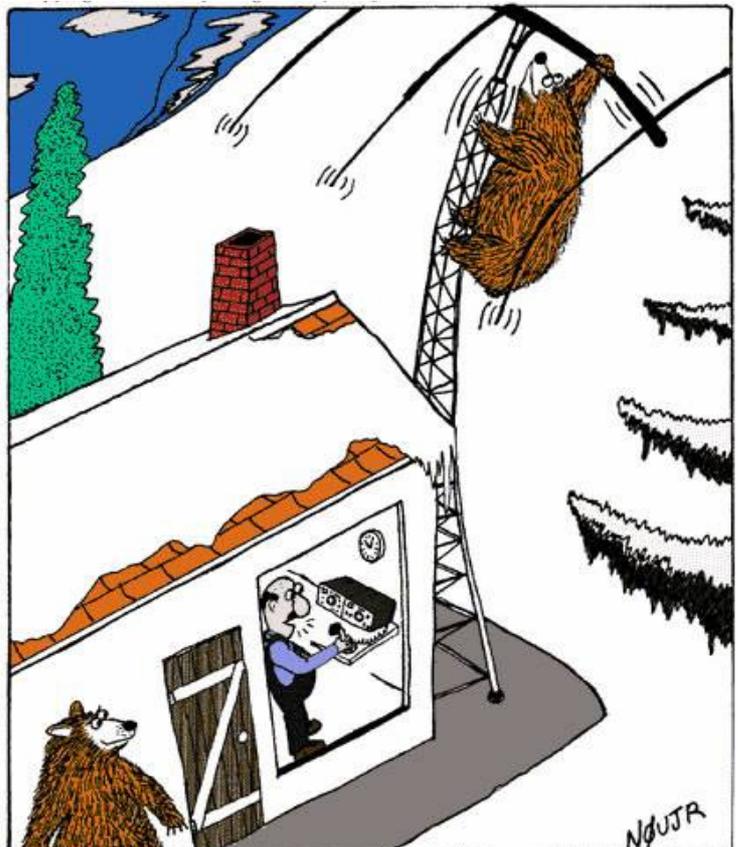


- Grant Simpson, ZL2BK

If you're happy and you know it...



Clamp your ham!



"Hang on a minute Larry, my SWR is jumping...I'm going outside to see what the problem is..."