

# HAMLARKS

Christchurch Amateur Radio Club



February 2017

**Branch 05 Club re-occurring events**

**MAIN BRANCH MEETING** First Wednesday of the month 7.30pm, except January. *All visitors welcome.* At 5 Idris Road, Fendalton.

Branch 05 Website [www.chchhamradio.org.nz](http://www.chchhamradio.org.nz)

**ACTIVITIES and STUDY NIGHT** Every Tuesday 7:30pm at 5 Idris Road, Fendalton.  
*All visitors welcome.*

**DAYTIME MEETING** (Branch05)

Meet third Thursday of month, 1PM at Branch05 clubrooms.

*All visitors welcome.*

**COMMITTEE MEETING** 1st Monday after branch meeting 7.30pm

At 5 Idris Road, Fendalton

**AREC MEETINGS** Normally the 2<sup>nd</sup> Wednesday of the month 7.30pm. At 5 Idris Road, Fendalton

**DEADLINE FOR HAMLARKS COPY** 11 days before the main branch meeting.

**WEEKLY CLUB VHF NET** Every Sunday 8:00 PM on 145.625MHz repeater if available, otherwise 147.050MHz repeater.

**OFFICIAL NZART BROADCAST** Last Sunday of the month 8:00 PM on 147.050MHz repeater.

**CW PRACTICE**

Boyd ZL3LE every Tuesday at 8pm. 3550 kHz. Listen in your shack or come along to Branch 05 clubrooms.

*Views expressed in "Hamlarks" are not necessarily those of the Editor or of the Committee of the Christchurch Amateur Radio Club. The Editor reserves the right to edit articles submitted for publication for reasons of clarity or length. No part of Hamlarks may be reproduced without the express consent of the Editor.*

**Programme for next branch meeting**

New Zealand Customs Officer Hayley Robertson will present a talk, and may hopefully include some discussion relating to "contraband, and border control".

**Secretary Rory's Ramblings - ZL3HB**

Start of another year. Xmas soon!! What are we going to do this year? Ideas please. Garage is done & dusted at last apart from a bit of wiring which is happening at the moment.

Been a long haul but we got there. Now for the fence, paving and landscaping. A few working bees coming up!

Am writing this a few days early as Kelvin will be putting together while away so I can't tell you that the picnic was a roaring success yet. Hope you enjoyed it if it didn't get rained out?

And Mt Herbert 725 is up & running again after a long hiatus. We got there at last. Coax plug on end of the aerial tail had come apart. It's a severe atmosphere up there at times. Quite deceptive!

Next stop Marley's to tidy up the aerials and hopefully stop some of the rubbish triggering.

And it's sub time again too. So I hope you printed out the reminder that was emailed out a few weeks ago to remind you to pay. Remember it has to be by the end of March now please.

And a reminder again that if you pay online to put your call sign or name. We have already had one deposit with no identifier!!

Our new venue and revitalised club (thanks to you all) went from 65 members at Galbraith Ave to over 150 last year which is wonderful. Well done all.

Tuesday nights are humming again this year with 35 last Tuesday!! Have to buy more biscuits!! So come along & enjoy.

RadioTek, Hamcram & Hamtek's all under way & planned, so going to be another busy year. And remember field day on 25/26th Feb so go along to the Bromley poo ponds for a thrill!! No Tsunamis this year please.

See you in February

Rory ZL3HB

**Christchurch Amateur radio Club Picnic**

Remember – picnic at Spencer Park on Sunday 22nd Jan. If weather is rubbish we might move it to the clubrooms so keep an ear out on 705 around 10 AM.

# Payment Due - Reminder

## NZART Branch 05 Subscription for 2017

Call \_\_\_\_\_ Name \_\_\_\_\_

Single Membership

\$25 if paid by 31st March  \$35 if paid after 31<sup>st</sup> March 2017

Family Membership

Junior \$15

\$35 if paid by 31<sup>st</sup> March  \$45 if paid after 31<sup>st</sup> March 2017

***Our Club Bank Account number is: 030826 0145249 00***

If you pay by internet banking, please make sure that you use your **Call Sign** as the transaction **reference number** so that our treasurer can identify you.

If you are posting your Subscription, please send to:

**Christchurch Amateur Radio Club**

**P.O.Box 1733,**

**Christchurch.**

### Hamads

#### **Wanted:**

Old NZ Magazines needed. I am trying to complete a collection of NZ's own electronics magazine. This was Radio and Electronics, later Radio and Electrical review, later Radio, Electronics and Communications. I am unsure of when it ceased publication, somewhere in the 1973's, I think.

I would appreciate any spare, unwanted, copies to fill up the missing gaps. Needed are: Volume 4, no. 1, April 1949; Vol.4, no.3, May 1949. The magazines I have on hand for July 1949-December 1949 are in very poor condition and could be replaced if any unwanted copies are miraculously found.

Jan 1952; December 1957; October 1960; April, May, November, December, 1962; Jan-April and June-Sept., November and December, 1963; Jan-April, June, August, 1964; Feb, July, Sept,

November, 1969; March, November, December, 1970. April onwards, 1973. Does anyone know when publication ceased?

Many thanks.

Ross ZL3TFK, [weir.rd@xtra.co.nz](mailto:weir.rd@xtra.co.nz)

## Wanted to purchase

### 1. Parts in the Photo

- Double Button Microphone element (three connections - As per photo attached)

- 500 Ohm (Centre of photo) and 10k Resistors (As per photo attached)

(I am only after identical parts as this is an exact replica I am building...)



### 2. Equipment for EME Moon bounce

- 144MHz / 2m Yagi antenna and or Linear amp
- 440MHz / 70cm Yagi antenna and or Linear amp
- Antenna Rotator for azimuth and elevation

### 3. 10.7MHz SSB Crystal Filter 2.2 or 2.4 kHz (or close)

-One marked **10M22D** would be perfect, but any filter with these or close bandwidth I am interested in... One from an old ICOM IC-202 will work or similar 10.7 IF rig.

### 4. SPY / Clandestine radios from WWII era.

I am always interested in these sets, but not military sets

If you have any of these bits or can help me chase them down, I will be delighted to hear from you... You get a free coffee and clap on the back at my place... If you like CW I might be persuaded to get out a spy rig for you to try!

Michael Wise ZL3AX (G0GPX / J87AB), Wisdom Counselling

[sagecounsellor@gmail.com](mailto:sagecounsellor@gmail.com)

027 340 8325, 03 745 9118 (Rangiora Area)

## Repeater Work Richard ZL4FZ

On Friday 13<sup>th</sup> Jan 2017 team of seven people (Rory 3HB, Rob 3RX, Rod 3ROD, Mike 3TMB, Morrie 3RP, Steve ZL2UCX and myself 4FZ) spent a day at Herbert. We met at Diamond Harbour at 0830 and finished around 1630. We have replaced the mounts with a 48mmOD water pipe, reinstated the original whip antenna after refurbishment, checked the duplexer tuning, tested the repeater with Comms Test set, checked all cables and feeder with VNA. Tidied old feeders and rubbish from the pole etc.

Net result is 725 is back on air, performance appears by reports so far (Geraldine/Timaru) to be going well, and measurements from my QTH support the improvement. Good day, not much wind, good weather, lots achieved.

### Repeater opening power from ZL4FZ QTH

|                  | <b>Today</b> | <b>Last measured</b> |                                  |
|------------------|--------------|----------------------|----------------------------------|
| 705 (with CTCSS) | -7 dBm       | -6 dBm               | - No change *                    |
| 705 (no CTCSS)   | +3 dBm       | +1 dBm               | - No change                      |
| 725              | -10 dBm      | +1 dBm               | 9 dB improvement                 |
| 675              | +5 dBm       | +5 dBm               | Consistent with results Oct 2015 |
| 6975             | NA           | NA                   | At upper limits of Sig Gen       |
| 5625             | +10 dBm      | +5 dBm               | 5 dB worse than last (Jan 16)    |

*\*(Note 705 opens with -12 dBm, but pulses until -7 dBm)*

### Received Signals at ZL4FZ QTH

|      | <b>Today</b> | <b>Last measured</b> |                                      |
|------|--------------|----------------------|--------------------------------------|
| 705  | -54 dBm      | -55 dBm              | (no change since Jan 2016)           |
| 725  | -67 dBm      | -79 dBm              | 12 dB improvement                    |
| 675  | -77 dBm      | -75 dBm              | (last measured Oct 2015) - no change |
| 6975 | -89 dBm      | -88 dBm              | (last measured Oct 2015) - no change |
| 5625 | -71 dBm      | -72 dBm              | (last measured Oct 2015) - no change |

## Summary

With off air measurements, variation of 1- 3 dB is not unusual (worse for longer paths). Given that if a result is within 2 dB I have considered it as "no change". Despite this the results are on the whole rather consistent.

**705** - No change in performance - but this also includes the problem with this repeater of poor de-sense performance. This shows up with a base sensitivity of -11 dBm but needing -7 dBm to stop the repeater pulsing - a 5 dB degradation. This would suggest that at least 11 dB more isolation is required in the duplexer, OR we drop the TX power back to 25W, (6dB drop in TX power) which should stop the pulsing.



**725** - A marked improvement since last time (11 dB Rx performance, and 12 dB TX performance) compared with January 2016. Even comparing with the best results I have (Mar/Apr 2015) the Rx is 6 to 8 dB better, and TX is 9 dB better.

**5625** - Appears to be less sensitive on RX by 5dB. This could be as simple as Rx gate setting as TX signal is no change

**All others** appear to be "no change"

Rob (3RX) - we may be able to check the



pulsing/isolation issue with remote access to 705

This makes 725 currently the best 'local' repeater for hand-held use as the 5dB extra receive signal needed to overcome the pulsing outweighs the stronger Tx signal from 705. Obviously coverage of 725 is more constrained because of shadows across the Port Hills. The difference in gating levels also does not adequately measure additional S/N degradation on low level receive signals, but in my opinion would this about a further 6dB of additional S/N degradation. This is because the measurements are based on gate opening levels rather than SINAD.

### Hamarks editor takes the mic - ZL3KB

Happy New Year. A truly great start to 2017 as I had a swag of contributions to Hamarks! Well done, and keep it coming. I would like to think this is a result of our swelling membership? If any new Hams have questions or contributions for the club please feel free to send them to me.

Note we have four extra pages this month, so some more trees are gonna have to die.

Unfortunately I cannot join the fun at the Br05 picnic, have a beer for me. 73's Kelvin 3KB

### Cool Gear? ZL3KB

A hand held Vector Network Analyser with freq coverage of 140MHz - 2.7GHz for NZ\$200. We saw this on the famous Banggood site the other day, and my colleague has ordered one. I will let you know how it turns out!

<http://www.banggood.com/N1201SA-UV-RF-Vector-Impedance-ANT-SWR-Antenna-Analyzer-Meter-Tester-140MHz-2.7GHz-p-1090983.html?rmmds=search>





**Jock White Field Day 2017**

The club will enter two teams in JW field day this year. All members very welcome to join in and have some fun. New licence holders- get your first 50 contacts in half an hour!

**Dates -**

Saturday 25<sup>th</sup> February 2017, Arrive at site 09:00AM, Erect aerials by 12:00PM

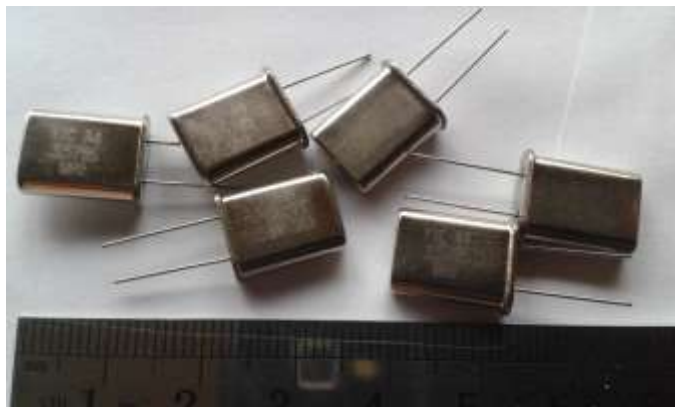
Sunday 26<sup>th</sup> February 2017, Finish contest at 15:00PM, Leave site by 17:00PM

**Place** – paddock off Bridge Street, near the Avon estuary. See map. Come along to the February meeting to find out more.



**Home Brew ZL3GIL****Outnumbered by TV Colourburst Crystals – ZL3GIL**

Suggestions are welcome from club members as to what I can build using these 3.5795 MHz TV colourburst crystals. They are leftovers from



when I needed to assemble a simple cw transmitter for the 80m band.

I don't need to build another six cw transmitters so please point me in the direction of other projects which could make use of these crystals... that ought to keep me out of mischief for a

while! Either tell me about it at the Tuesday activities evenings or via email [gilbie68@gmail.com](mailto:gilbie68@gmail.com)

**New construction projects for 2017 – a wish list from ZL3GIL**

Happy New Year to everyone at Branch 05 ! Have you made/broken any New Year resolutions yet? I wonder what radio-related resolutions other branch 05 members have made? Maybe instead of resolutions do you have a list of projects you'd like to complete before 2018 rolls around? Here's my short list of projects:

Antenna analyser

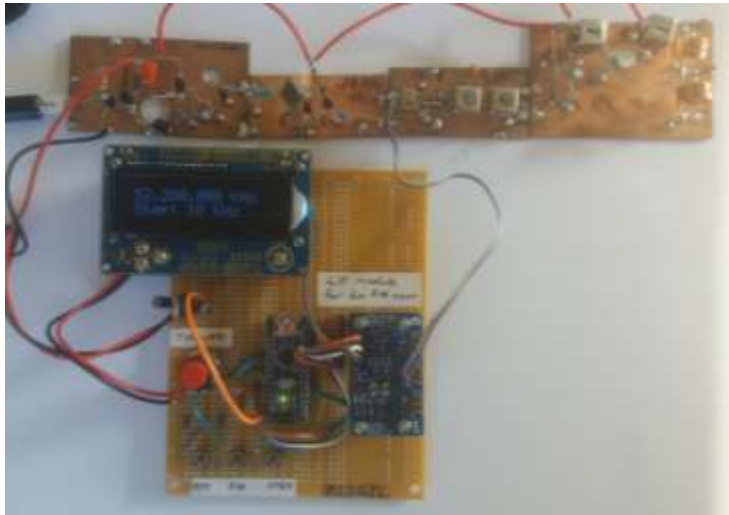
The SWR bridge that I cobbled together many years ago still serves me well and indicates how resonant each of my antennas are. The collection of antennas has grown so it's now time to enhance the measurement process... time to assemble an antenna dipper-type instrument. There is such an instrument that was designed by Jim Tregellas VK5JST and is available as a kit of parts for approximately AUD\$155 but I've seen an article by Beric Dunn K6BEZ in



which he describes various Arduino-driven analysers that can be assembled for far fewer dollars.

### 6m FM low power transceiver

I often marvel at the homebrewing accomplishments of Kazuhiro Sunamura JF1OZL. In the 1990s he designed his own QRP gear and at



one point he dabbled in some 6m rigs. Many of his designs must have been great fun to build but some of the parts used might be a little tricky to source these days. I'm going to have a crack at a QRP transceiver that will use the FM mode and will be using Kaz's block

diagram for his 200mW 6m FM rig as my starting point. Where Kaz used some interesting crystals in his local oscillator I plan to deploy a contemporary clock generator device such as the Si5351a. That ought to keep the rig's 'flavour' up to date!

### Digital modes

Operating on HF in voice mode (SSB) and in CW has been fun so far. Now it's time to get my feet wet in the newer digital modes. I've collected enough parts to put together a PSK31 transceiver that will operate on 3.850 MHz. It's crystal controlled and will be a perfect way to use up a bunch of tv colourburst crystals that were taking up valuable bin space. A big thank you goes out to Kevin ZL3KE for the suggestion of Dave Benson's PSK31 'Warbler' for 80m.

Arduinos and DDS devices, Arduinos and clock generator devices... they're the perfect combination for WSPR transceivers... might have a go at this mode once the PSK31 box has been ticked.

What's on your list?

Gilbert Best ZL3GIL

**AGM 2016 Minutes****Christchurch Amateur Radio club AGM 7<sup>th</sup> Dec 2016**

**Apologies** ZL3CED, ZL3CC, ZL3TFK, ZL3ACU, ZL3KL, ZL3MJS, ZL4FZ, ZL3GIL, ZL3EP, ZL3JE

ZL2UCI. Moved to accept by Ian ZL3TAO. Carried

**Visitors** Wayne Fisher ZL2AYB

**Minutes** of 2015 AGM moved to accept by Rory ZL3HB, seconded Rob ZL3RX. Carried.

**Reports** **President** Ian ZL3TAO read his report and moved it be accepted. Carried.

**Trustee** Rob ZL3RX read his report and moved it be accepted. Seconded by

Gareth ZL3VP. Carried.

**Treasurer** Richard ZL3UE presented the financial report and moved it be accepted, seconded by Simon ZL3SI. Carried. Members requested some further cost breakdown.

**AREC** report as tabled at AREC AGM was moved to accept by Steve ZL2UCX, seconded by Gareth ZL3VP. Carried.

**Election of officers and committee.** Ian ZL3TAO vacated the chair replaced by Gareth ZL3VP.

**President** – Ian ZL3TAO nominated by Mark ZL3JVX, seconded by Rob ZL3RX.

Mike ZL3MWD moved nominations be closed, seconded by Steve ZL2UCX. Carried.

There being no further nominations Ian was declared elected President. Ian ZL3TAO then resumed the chair.

**Vice President** – Mike ZL3TMB nominated by Rob ZL3RX, seconded Rob ZL2ROB.

Richard ZL3UE moved nominations be closed, seconded by Alan ZL3BWG. Carried. Mike therefore elected Vice president.

**Secretary** – Rory ZL3HB nominated by Rob ZL3RX, seconded by Greg ZL3IX.

Simon ZL3SI moved nominations be closed, seconded by John ZL3ADF. Carried. Rory subsequently elected secretary.

**Treasurer** – Richard ZL3UE nominated by Rory ZL3HB, seconded by Rob ZL3RX. Carried.

**Committee** – Trevor ZL3ADZ nominated by Geoff ZL3PX, seconded Rob ZL3RX

|             |   |             |   |            |
|-------------|---|-------------|---|------------|
| Mark ZL3JVX | “ | Mike ZL3MWD | “ | Ron ZL3RON |
|-------------|---|-------------|---|------------|

|             |  |             |  |              |
|-------------|--|-------------|--|--------------|
| Mike ZL3MWD |  | Mark ZL3JVX |  | Gareth ZL3VP |
|-------------|--|-------------|--|--------------|

|             |  |            |  |              |
|-------------|--|------------|--|--------------|
| David ZL3DO |  | Rory ZL3HB |  | Gareth ZL3VP |
|-------------|--|------------|--|--------------|

|              |  |            |  |            |
|--------------|--|------------|--|------------|
| Blair ZL3TOY |  | Rory ZL3HB |  | Mark ZL3BA |
|--------------|--|------------|--|------------|

|              |  |             |  |             |
|--------------|--|-------------|--|-------------|
| Gareth ZL3VP |  | David ZL2IC |  | Peter ZL3NH |
|--------------|--|-------------|--|-------------|

|              |  |             |  |            |
|--------------|--|-------------|--|------------|
| Brian ZL2BAT |  | David ZL3DO |  | Rory ZL3HB |
|--------------|--|-------------|--|------------|

Rob ZL3RX moved nominations be closed, seconded by Mark ZL3JVX.

Carried.. The above members are elected to committee.

**Repeater trustees** – Ian ZL3TAO moved that current trustees, Rob ZL3RX, Gareth ZL3VP and Mike ZL3TMB be re-elected. Carried.

Andrew ZL3CC moved that Richard ZL4FZ be confirmed as AREC section leader and Steve ZL2UCX and Ken ZL4KD as deputy section leaders, seconded by Mark ZL3AB. Carried.

**Auditors** - Richard ZL3UE moved that ‘Canterbury Community Auditors’ be confirmed as club auditors, seconded by Rob ZL3RX. Carried.

Mike ZL3MWD was then presented with Amateur of the Year.

Geoff ZL3PX was presented with the Telfer cup for services to AREC.

Brian ZL2BAT was thanked for his services to the committee and presented with a gift.

Rob ZL3RX was thanked for his long service to the club and presented with a gift.

David ZL2IC was thanked for his time as President and VP and presented with a gift.

**Subscriptions** – the committee recommended that subscriptions be increased to \$25 members and \$35 family and an extra \$10 for printed & posted Hamlarks and must be paid by 31<sup>st</sup> march 2017. Moved to accept by Rob ZL3RX, seconded by Greg ZL3IX. Carried.

Rory ZL3HB moved ‘that subscriptions may be paid early from the 1<sup>st</sup> November until end of AGM night to hold next years subscription at current years rate’ seconded by Mark ZL3BA. Carried. Members asked that a separate subscription form be emailed out to members rather than just publish in Hamlarks.

**Constitution** – John ZL3ADZ moved the changes as published be accepted with proviso that section 7 wording be changed to ‘Full members’, seconded by Andy ZL3AG. Carried.

There were no remits to forward to annual conference.

Meeting closed at 8.45 PM followed by a Xmas supper.

**Minutes of the Branch 05 meeting****Christchurch Amateur Radio club meeting 7<sup>th</sup> Dec 2016**

**Apologies** ZL3CED, ZL3CC, ZL3TFK, ZL3ACU, ZL3KL, ZL3MJS, ZL4FZ, ZL3GIL, ZL3EP, ZL3JE

ZL2UCI. Moved to accept by Ian ZL3TAO. Carried

**Visitors** Wayne Fisher ZL2AYB

**Minutes** of Nov meeting moved to accept by Rory ZL3HB, seconded David ZL3DO. Carried.

**Correspondence** Ragchew, Amsat Journal

**Reports** ARECAGM last month with current officers re-elected.

Ken ZL4KD was elected as 2<sup>nd</sup> deputy

Klassic kayak race this weekend

**Repeaters** All OK except 725

National System locked up due to another bit of gear faulting producing

cross band interference.

Still need work on 705 & 725

**Tuesday night** Going strong with up to 30 members attending.

**Band report** Rod ZL3NW reports 6m openings happening with 2m beacon being heard in

Australia.

ZL3PX on meteor scatter and back scatter over New

Caledonia

ZL3IX reported P25V on Top Band

**General Business** December daytime meeting next week 15<sup>th</sup>. Bruce ZL3TFM organizing.

Mark ZL3JVX will open clubrooms on Boxing day for a gathering.

Club picnic on January 20<sup>th</sup> 2017 at Spencer Park

Hamcram went well with all 8 passing. Around 31 new hams this year.

Rob ZL2ROB suggested we should organize some fox hunts.

Meeting closed at 7.45 PM

**Christchurch Amateur Radio Club**Committee for 2017 email: [rory1@xtra.co.nz](mailto:rory1@xtra.co.nz)

|                     |                    | <u>Ph home</u>   | <u>Ph work</u> | <u>Cell phone</u>         |
|---------------------|--------------------|--|----------------|---------------------------|
| <b>President:</b>   | Ian MacPherson     | ZL3TAO 3549311<br>17 O'Neill Ave Northwood Chch<br>Email: <a href="mailto:ian@macpherson.gen.nz">ian@macpherson.gen.nz</a>               |                | 021 048 0298              |
| <b>V/President:</b> | Mike Barnes        | ZL3TMB 03 3133321<br>P O Box 218, Christchurch, 8140<br>Email: <a href="mailto:mike@barnes.net.nz">mike@barnes.net.nz</a>                |                | 021 679 479               |
| <b>Secretary:</b>   | Rory Deans         | ZL3HB 3446292<br>29 Seymour St, Hornby, Chch 8042<br>Email: <a href="mailto:rory1@xtra.co.nz">rory1@xtra.co.nz</a>                       |                | 0211314599                |
| <b>Treasurer:</b>   | Richard Prattley   | ZL3UE 325 2685<br>42 Ryelands Dr, Lincoln,<br>Email: <a href="mailto:z3ue@snap.net.nz">z3ue@snap.net.nz</a>                              |                | 027 226 2205              |
| <b>Committee:</b>   | Brian Ramage       | ZL2BAT 385 4428<br>28 Wilmington Place, Fairway Park, Christchurch 8061<br>Email: <a href="mailto:ramz3@xtra.co.nz">ramz3@xtra.co.nz</a> |                | 027 630 6706              |
|                     | Trevor Wignall     | ZL3ADZ 3388953<br>32 Worsleys Rd, Cracroft, 8025<br>Email: <a href="mailto:z3adz@xtra.co.nz">z3adz@xtra.co.nz</a>                        | 963 9241       | 021 057 6279              |
|                     | David O'Malley     | ZL3DO 3594117<br>72 Crofton Rd, Harewood, Chch 8051<br>Email: <a href="mailto:david.b.omalley@gmail.com">david.b.omalley@gmail.com</a>   |                | 027 6581350               |
|                     | Mark Atherton      | ZL3JVX 3376632<br>116B St Martins Rd Chch 8022<br>Email: <a href="mailto:markaren1@xtra.co.nz">markaren1@xtra.co.nz</a>                  |                | 021 0324446               |
|                     | Mike Duncan        | ZL3MWD 3384942<br>243 Hoon Hay Rd Chch<br>Email: <a href="mailto:mikedun@xtra.co.nz">mikedun@xtra.co.nz</a>                              |                | 0211039338                |
|                     | Blair Kenton       | ZL3TOY 3392967<br>44 Dickens St, Addington, Chch<br>Email: <a href="mailto:z3toynz@gmail.com">z3toynz@gmail.com</a>                      |                | 0212922164                |
|                     | Gareth Bradshaw    | ZL3VP 3322406<br>163A Ashgrove Tce, Chch<br>Email: <a href="mailto:z3vp@xtra.co.nz">z3vp@xtra.co.nz</a>                                  |                | 0274324738                |
|                     | AREC Richard Smart | ZL4FZ 385 8355<br>Email: <a href="mailto:rsmart@netaccess.co.nz">rsmart@netaccess.co.nz</a>  | 3728603        | 021 443 086<br>0275085718 |

**Repeater Trustees:**

Rob Thirkettle ZL3RX 3483815 Gareth Bradshaw ZL3VP 3322406 Mike Barnes ZL3TMB 03 3133321

**Auditor: Community auditors/reviewers**

**Hamlarks:** Kelvin Barnsdale ZL3KB 3238377 021 02904020  
Email: [kb.ew@xtra.co.nz](mailto:kb.ew@xtra.co.nz)

**Clubrooms 5 Idris Rd, Fendalton Mail to PO Box 1733 Christchurch**

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From P.O.Box 1733,  
Christchurch,  
New Zealand