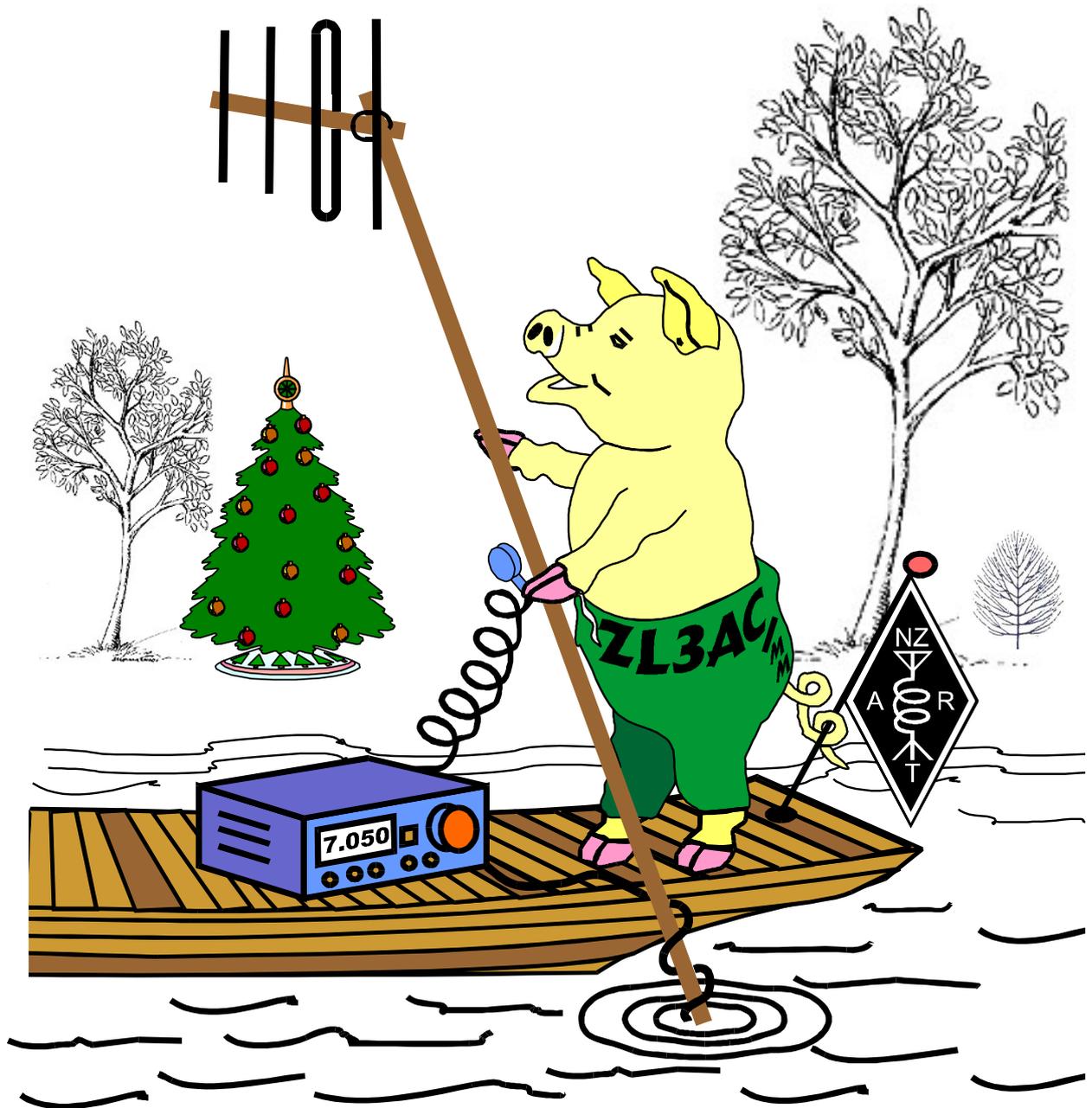


# HAMLARKS

Christchurch Amateur Radio Club



June 2017

# HAMLARKS

Christchurch Amateur Radio Club



**June 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 7:30 pm at 5 Idris Road, Fendalton.  
*All visitors welcome.*

**DAYTIME MEETING** (Branch05)

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

*All visitors welcome.*

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

At 5 Idris Road, Fendalton

**AREC MEETINGS** Normally the 2<sup>nd</sup> Wednesday of the month 7.30 pm. 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 145.625 MHz repeater if available, otherwise 147.050 MHz repeater.

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

**CW PRACTICE**

Boyd ZL3LE every Tuesday at 8 pm. 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**

Conference report, followed by  
a talk by Jane Foley on 'CPR & keeping us alive in the shack'  
Wednesday 7<sup>th</sup> June

Next Christchurch Robotics Group will be meeting at the Br05 clubroom, Mon 19th June 2017 at 6:30pm. See [kiwibots.org](http://kiwibots.org). Mark Atherton, ZL3JVX"

### Secretary Rory's Ramblings - ZL3HB

Well - we are nearly there. The garage I mean. But you have all heard that before haven't you!!! Passed final inspection and final paperwork done to council, with last council bill paid, so hopefully it is just waiting for the final piece of paper from them. Then on to the groundwork. Another successful Radiotek today with 12 candidates. Seven of them first timers so good grounding for the next few Radioteks. Next one 3rd September if you would like to pass the word around.

Your Committee has been discussing membership and loaning gear etc and formulating some policies. Any youngsters joining will need to be joining as part of a family group so we have a point of contact in the family and so parents are aware of any communications between us.

Also - a reminder of the gear loaning policy. Any equipment you want to borrow from the club needs to be run past a committee member first as not all gear will be allowed out of the clubrooms. And when it is borrowed it MUST be recorded in the loan book that is on the side of the shelving just through the door on the right when entering the workshop. You should sign for the gear taken plus get a committee member signature as well please. When returned please get a committee member to sign it back in. At times we get generous donations of gear and we need to know where it is.

Some of you will have heard that sadly Br 56 has decided to close. With location issues and falling membership it seems it is costing too much to keep the club open. If their members wish to join us I am sure you will all make them welcome in the spirit of Ham radio. Keep warm as winter appears to be here.

Rory ZL3HB.

**From the Acting Editor**

Hamlarks editor Kelvin ZL3KB will be overseas until the end of the year and I have been “volunteered” to stand in for him. So if you have copy, hamads, etc for Hamlarks please send it directly to me at [john.zl3ib@ihug.co.nz](mailto:john.zl3ib@ihug.co.nz) or phone 03-3489 084.

Thanks & 73

John Walker ZL3IB

**NZART HF Contests April – July 2017**

Wayne, ZL2AYB, plans to use the Branch 05 facilities to participate in three NZART HF contests. If you do not have an HF station or are not already involved in contests this is an opportunity for interested club members. Although they are all single operator contests, you are invited to join Wayne at the club rooms to assist with the log keeping for some or all of the following events (or part thereof). There are CW components but you do not have to be a CW expert or even have done any CW at all.

If you have any questions or intend to join Wayne please contact him beforehand at [fisher.well@xtra.co.nz](mailto:fisher.well@xtra.co.nz).

Memorial Contest:-

When: Saturday 1 July and Sunday 2 July

Time: 2000 to 2300 each evening

Mode: SSB & CW (Field Day format)

**Hamcram at Branch05**

The next HamCram will be in July, and places are filling fast.

**ZL3 Summits on the Air**

It is now a year since the South Island (ZL3) SOTA association was approved, with 2 activations happening on the first day, 1 May 2016. In that first year 26 summits were activated, the highest being Castle Hill Peak (1998 m) by ZL3CC, Altimarloch (1693 m) by ZL2AJ & VK3ARR, and Mount Somers (1688 m) by ZL2UCX.

There aren't many regular activators yet, but there are plenty of chasers keen to work those that do make it to the summits. As well as a good core of regulars in ZL, conditions usually allow the many VK chasers to be

worked. I have also had contacts with three European stations from Banks Peninsula summits.

April and May saw only 4 summits activated, all by ZL3CC: Coronet Peak ZL3/OT-302, Mount Iron ZL3/OT-478, Mount Richardson ZL3/CB-612 and Saddle Hill (Banks Peninsula) ZL3/CB-725. Propagation has been mixed, but I did work many of the regular ZL chasers (usually on 40 m) and VKs (on 40 m or 20 m) from all of those.

The beginning of June sees the start of the winter bonus period in ZL3. For the four months June-September, summits over 1100 m (normally 4 points or more) bring the activator an extra 3 points - but not the chasers, sorry folks.

A good way to get a feel for SOTA is to chase ; keep a lookout on SOTAWatch <http://www.sotawatch.org> for upcoming activations (alerts) or those happening now (spots) and you may be surprised how many you can hear. Give them a call, they will appreciate it.

For more information about SOTA read all about it at <http://www.sota.org.uk> or drop me a line: zl3c@yahoo.com

Hope to hear you in the hills,  
Andrew ZL3CC

## Artificial intelligence, Spies, and Encryption

By Robert Walker, ZL2ROB

The Club has previously been honoured with two talks by the University of Canterbury (UC). Distinguished Professor, Jack Copeland, about the WWII Enigma decryption machines, their history, Alan Turing and Artificial Intelligence (AI).

Jack is to be invited back yet again to give us some of his interesting insights on the topics on which he *really* is an international expert in his chosen field. With a light and humorous lecturing style, he has been asked to choose the next surprise topics for his forays into the world of

electronics, computers, science, philosophy, and our minds as ham radio operators. Firm dates for his next talk have yet to be set but it is expected to be much later into this, or the next, academic year. A lecture on the topic of Logic in Electronics, circuit design and construction has been considered and will hopefully be from one of Jack's Philosophy Departmental staff.

From some of the interesting questions raised in the lectures, and by talks with him after the lectures, Jack has become impressed with the insights and abilities that club members have shown.

In an email to us, Jack has suggested that Br05 members can obtain a special entry and fees dispensation. He comments; "An idea. Why don't a bunch of them [Br05 members] enrol in a course, e.g. PHIL137 or PHIL134 or PHIL208? There's an age 50+ special deal now; fees scholarship, various incentives, and I think a certificate on passing just one course. We can explore further if you think some of them might be interested."

Philosophy, includes many fields of academic enquiry: history, science, ethics, religion, physics, politics, astrophysics (as in Professor Stephen Hawking stuff), intelligence in computers and lots more. It forms the ground work basis for *most* scientific theory and research. Science fiction buffs will *love* Philosophical enquiry! It teaches ways of analytical thinking, reasoning and questioning that *do* apply to our daily lives.

Recreational study for a UC Certificate in any of those areas can be based at first year entry levels. At that level, it's very simple provided you can read and write at a basic level, i.e., you can readably write a sentence expressing your own thinking and you can spell *some* of the time. The only other requirements are the habits of self-discipline and self-motivation to do the lecture attendances and get assignments (essays) into the lecturers on time. Procrastination is a student's worst enemy! You'll need about two hours a week attending UC lectures and tutorials.

As a Br05 member, now 76 years old, I am presently undertaking UC postgraduate honours level courses. If I can do it at that age, together with several of the usual human physical health and aging issues, most of our members would have little difficulty in getting through Certificate level coursework. The Certificate level entry can be used to advance to, say, a Diploma or even a Bachelor's degree in many other fields of study at UC. There are many active members of Br05 who already have a tertiary level degree (some are Ph.D. graduates and lecturers) and you can certainly rely upon those members to help and give advice. The UC staff and your lecturers will *gladly* give up their time to ensure you feel comfortable with it all.

The abstract learning, critical thinking, questioning and reasoning content required to pass a ham license exam is about the skill level required for 1st year entry level for success at university. You do NOT require any maths ability for many courses.

The social life at UC is a magnet. Many student clubs and societies to possibly join into on science, politics, religion, sports and engineering, ham radio etc. No need to be sitting around at home endlessly watching daytime TV!; recent neurobiological research shows that this fosters early dementia and Alzheimer's disease !

I will be very happy to introduce members to Jack at UC and share a confidential cuppa or private UC lunch with you. I can get the appropriate coursework and UC information for you but it is available at: [www.canterbury.ac.nz](http://www.canterbury.ac.nz) You can also make your own direct appointment with Jack on line at the UC Philosophy Dept. web site. Jack is in the UC Philosophy Department, 6th floor in the Karl Popper building and is very happy to guide you into your best options.

Best 73's de Bob, ZL2ROB. 03 351 5162

[zl2rob@xtra.co.nz](mailto:zl2rob@xtra.co.nz)

## Handy Hints for the Ham Shack

### Determining the impedance of coaxial cable

What is the impedance of that spare length of coax lying around the shack; was it 50 or 75 ohm? Recently this question of coax identity can cause problems for hams.

An easy way of distinguishing the two types is by measuring their capacitance per unit length since this is significantly different for each type of cable. Typically, the capacitance of 50 ohm cable is usually between 90-100 pF/m whereas that of 75 ohm cable is around 65-72 pF/m. So, all you need to do is measure the capacitance and length of your unknown cable, do some simple arithmetic and 'Hey Marconi !' there you are. You can use a dip oscillator to measure capacitance but a simple analogue or digital capacitance meter is easier and circuits for these maybe found in the *ARRL Handbook* and other publications.

The following table summarises the properties of the main types of coaxial cables.

<b>Cable type</b>	<b>Outside diameter (mm)</b>	<b>Capacitance (pF/metre)</b>	<b>Impedance (nominal)</b>	<b>Velocity factor (%)</b>	<b>Power rating (kW@10MHz)</b>
RG8, UR67	10.3	97 -99	50 - 52	66 - 67	3.5
RG58, UR43	5.0	94 -100	52	66 - 77	1.0
RG174	2.8	101	50	66	
RG11, UR57	10.3	67 - 68	75	66	2.5
RG59, UR90	5.0	65 - 70	75	66	1.2

\*\*\*\*\*

### Hot-melt glue in the ham shack.

A hot-melt glue gun is very useful in the ham shack. I have found a drop of hot-melt glue ideal for holding coil windings in place and recently used this trick when winding some toroidal coils. Its rapid-

setting properties saves a lot of time. If you make a mistake you can melt the glue with a hot-air blower (eg a paint-stripper gun).

### **AVO meter Fault Fixing**

On my “bashing bench”, I still use an old AVO Model 8 multi-meter, a throw-out from our local Technical Institute. It watches over the bench whilst I rebuild bee frames and fit foundation beeswax, fold and hammer bits of metal, etc. Today, I wanted to check continuity of the battery leads on a small 12 volt PA amplifier that was not going. Nor was the Ohms range on the AVO 8.

I withdrew to the quieter and cleaner surroundings of my electronics bench. Here another AVO 8 Mk 3 was used to diagnose the first one. (In 1966, this one cost me 4 times my weekly pay as a junior trainee technician, so it has been looked after carefully). An examination of the works showed nothing obvious, so I went hunting for the 1.5 VDC that should be coming out of the battery compartment. This energises the Ohms range. I eventually got the 1.5 V needed after removing and reinstalling the battery, and ensuring the end contacts were free of corrosion. I measured 1.5V across the battery ends, then went on to measure through the adjacent fuse holder and 250 mA fuse, and got 1.4 V. Strange, I thought, and changed the fuse for the spare 250mA one thoughtfully provided in the battery compartment. Now I got 1.5V again. I presumed the original fuse was tired, having survived many student overloads. It then occurred to me to check what the correct rating of the fuse was supposed to be. This is given on the back panel, on Avometers; 1 amp was the stated correct value. I put one in, and checked that the Ohms range was still working. Furthermore, I could now zero the OHMS divide by 100 scale, something I had trouble doing since acquiring the meter. Clearly the resistance of the (wrong) fuse had not allowed correct operation of this range. Of course, I had had no previous reason to examine the fuse; the multi-meter had come to me like that- so one lives and learns!

Ross ZLTFK

## Minutes of the Branch 05 meeting

### Christchurch Amateur Radio Club meeting 3<sup>rd</sup> May 2017

**Apologies** ZL3JGM, ZL3NW, ZL3ADF, ZL3TFM. Moved to accept by Ian ZL3TAO.  
Carried.

**Minutes** of April meeting moved to accept by Rory with changes by ZL3ADF,  
seconded Mike ZL32MJS. Carried.

**Correspondence** Q-bit, Ragchew, Garage engineers PS4.

**Reports** AREC All quiet. National SAR training with police coming up.

**Repeaters** Trip to Marleys cleaned up pole & growth around hut.  
705 3db better on temporary shrouded dipole  
Need to check diplexers

**QSL Bureau** No new cards

**Tuesday night** Very good attendances

**Band report** Andrew ZL3CC activating SOTA peaks. HF quiet but odd  
opening late at night

**General Business** Have Garage PS4 so can now go for compliance  
Working bee on Tuesday to change aerial pole.

NZART is offering half price subs for new members.

Mike ZL3MJS is driving to Conference and is offering a ride if someone wants it.

Next HamCram 15/16<sup>th</sup> July 12 booked.

Radiotek on 21<sup>st</sup> this month

Driveway – council won't contribute so we go it alone.

ZL3ADZ suggested sensor light be adjusted to stay on longer. Mike ZL3TMB went  
outside and adjusted it.

Dave ZL3FJ looking for QST's 1960 – 1979 for EME research.

**Remits for Conference** – 31 NZART members present from list of 147.

Rory ZL3HB moved 'that Mike ZL3TMB, Ian ZL3TAO, Gareth ZL3VP be our delegates  
to conference', seconded Keith ZL3AHL. Carried.

Rory ZL3HB moved 'that delegates have power of discretion', seconded Keith  
ZL3AHL. Carried.

Remit 1 voted 31 for and 0 against

Remit 2 voted 31 for and 0 against

There were no questions raised on the NZART reports as published.

Remit 3 voted 1 for and 14 against and 1 abstention .

Br 05 supports a non repeater endorsement.

**Meeting closed at 8.45 PM** and decided to forgo a DVD in favour of a cuppa.

o

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

<b>President:</b>	Ian MacPherson	ZL3TAO	3549311		021 048 0298
		17 O'Neill Ave Northwood Chch			
		Email: <a href="mailto:ian@macpherson.gen.nz">ian@macpherson.gen.nz</a>			
<b>V/President:</b>	Mike Barnes	ZL3TMB	03 3133321		021 679 479
		P O Box 218, Christchurch, 8140			
		Email: <a href="mailto:mike@barnes.net.nz">mike@barnes.net.nz</a>			
<b>Secretary:</b>	Rory Deans	ZL3HB	3446292		0211314599
		29 Seymour St, Hornby, Chch 8042			
		Email: <a href="mailto:rory1@xtra.co.nz">rory1@xtra.co.nz</a>			
<b>Treasurer:</b>	Richard Prattley	ZL3UE	325 2685		027 226 2205
		42 Ryelands Dr, Lincoln,			
		Email: <a href="mailto:zl3ue@snap.net.nz">zl3ue@snap.net.nz</a>			
<b>Committee:</b>	Trevor Wignall	ZL3ADZ	3388953	963 9241	021 057 6279
		32 Worsleys Rd, Cracroft, 8025			
		Email: <a href="mailto:zl3adz@xtra.co.nz">zl3adz@xtra.co.nz</a>			
	David O'Malley	ZL3DO	3594117		027 6581350
		72 Crofton Rd, Harewood, Chch 8051			
		Email: <a href="mailto:david.b.omalley@gmail.com">david.b.omalley@gmail.com</a>			
	Mark Atherton	ZL3JVX	3376632		021 0324446
		116B St Martins Rd Chch 8022			
		Email: <a href="mailto:markaren1@xtra.co.nz">markaren1@xtra.co.nz</a>			
	Mike Duncan	ZL3MWD	3384942		0211039338
		243 Hoon Hay Rd Chch			
		Email: <a href="mailto:mikedun@xtra.co.nz">mikedun@xtra.co.nz</a>			
	Blair Kenton	ZL3TOY	3392967		0212922164
		44 Dickens St, Addington, Chch			
		Email: <a href="mailto:zl3toynz@gmail.com">zl3toynz@gmail.com</a>			
	Gareth Bradshaw	ZL3VP	3322406	0274324738	
		163A Ashgrove Tce, Chch			
		Email: <a href="mailto:zl3vp@xtra.co.nz">zl3vp@xtra.co.nz</a>			
<b>AREC</b>	Richard Smart	ZL4FZ	385 8355	3728603	021 443 086
		Email: <a href="mailto:rsmart@netaccess.co.nz">rsmart@netaccess.co.nz</a>			0275085718

**Repeater Trustees:** Rob Thirkettle ZL3RX 3483815 Gareth Bradshaw ZL3VP 3322406 Mike Barnes ZL3TMB 03 3133321

**Auditor:** Community auditors/reviewers

**Hamlarks:** Acting Editor John Walker ZL3IB [john.zl3ib@ihug.co.nz](mailto:john.zl3ib@ihug.co.nz) Phone 30 348 9084.

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

---

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