



Auckland Branch

N Z Association of Radio Transmitters Inc.

NEWSLETTER

March 2013



GENERAL MEETING

Clubroom, 400 St. John's Road, Kohimarama

Saturday 16th March, 2013

BBQ at 1200 - 1300 hours

Meeting starts at 1330 hours

Agenda

- Reports from your Committee
- Other business

Painting the south wall of the clubhouse.

Subscriptions are due: Please pay by direct credit to 12-3047-0076823-00

- **\$45.00** reduced to **\$40.00** if paid by 31st March 2013
- **\$5.00** for raffle ticket for 2012 ARRL Handbook to be drawn 2nd April

DIRECTORY:

www.qsl.net/ZL1AA
ZL1AA@NZART.org.nz

Clubroom: 528-2039

Contacts: 524-9969 (Gwynne)

21- 0226-4981 (Steve)

Box 18-003, Glen Innes, Auckland, 1743
400 St Johns Road, Kohimarama,

Google earth: 36.86973°S; 174.84386°E

ARRL Grid: RF73kr

ASB Bank Account: 12-3047-0076823-00

Nets: Mondays 3.645 MHz

Thursday 145.775 MHz

Club: Saturdays 145.775 MHz

Skype: ZL1AA_NZ

Remote K3: ZL1AA.dyndns.org

FROM OUR PRESIDENT



Jock White National Field Day

We are hearing reports from others that our team, headed by Wes ZL3TE, had the highest count of contacts. However, what matters is the count of multipliers. Meanwhile, Gwynne ZL1AAR has submitted the logs and he tells me that he tentatively claims 412,000 points. We had stiff competition from Branch 77 Te Aroha — in recess! The official results may take a month or so before they are published. Steve ZL1FS and his partner Christine fed the troops on both days. Thanks.

Antennas: The 80m loop antenna was deemed to be successful, thanks to the long hours put in by Gwynne ZL1AAR and helped by Steve ZL1FS to locate the position of the poles and to test it. This was not the same antenna that was erected earlier in the year for the K3 Remotely controlled Station. There were two 40m antennas available for the 40m station, though very few VK stations were worked on JWFD,

The Beam:

Last Saturday Steve ZL1FS and Japie ZL1JJN stepped the mast and replaced the rotator. The beam looks enormous when it is down on the ground. An attempt to realign the beam was made last year; and this task is no mean undertaking. It is reported that better reception is being heard since the connectors have been cleaned. Well done fellows.

Raffle

A show of hands at the AGM supported this proposal by Gwynne, ZL1AAR, to raffle the new 2012 hard cover ARRL Handbook. It is a magnificent tome. The winner will be announced in the course of the next Committee Meeting on 2nd April. This is immediately after the deadline (31st March) for discounted Subscription (\$40.00) for Membership of the Branch. Half of members have paid already and invoices have been sent out to all other Members. Wallace's job as Treasurer will be made easier if you pay directly into our **ASB bank account 123047-0076823-00** please.

Equipment TradeMe Sales

Some items have been sold, including a ZC1 Mark II for which the bidding was fierce. See the remaining items on the table in the clubroom. Many have been pictured in previous newsletters.

Toilet

We have a key that gives us access to a flush toilet in the main building at 400 St Johns Road. It will be opened on Saturdays. The key (with a green tab) hangs on a hook beneath the alarm pad, just inside the clubroom door. This is a vast improvement on our blue Tardis.

St Heliers Sand castle competition

Next Saturday, 23 March Wallace ZL1AL and Ray ZL1AJR will be operating on the foreshore at the east end of the beach. This is our chance to show off and hopefully attract new Hams. In previous years we have been recognized by families whose fathers or grandfathers were WWII veterans and continued their experience in Signals and became Hams.



Welcome to St Heliers—23rd March, 10 am-4pm

ZL1AA will be operating from the boardwalk. You'll find us under a folded dipole suspended between the street lighting standards.

Kids will be encouraged to operate. We shall explain how to obtain an Amateur Licence.

Hurry, for it's the last day to enter the Easter Bunny Hunt. They are hiding in various shop windows.

Auckland Branch 02, NZART (Inc)

Minutes of Committee Meeting

Time / Date / Place: 1930 hours / Tuesday 5th March 2013 / Clubroom

Attendees: George ZL1TUJ presiding; Steve ZL1FS, Wallace ZL1WAL, Ray ZL1AJR; Gwynne ZL1AAR, Allan ZL1AJH, Wes ZL3TE, Robert ZL2RED, Japie ZL1JJN and Selwyn ZL1BRC non-voting.

Minutes of the previous Committee meeting on Tuesday 5th February 2013,
Taken as read and approved ZL1TUJ / Z1WAL

Correspondence In:

Newsletters: Western, Hibiscus Coast, Franklin, North Shore
East and Bays Courier – What's on. Two contacts have resulted from this.
ARTANZ – summarizing their efforts to obtain a stay of fees for repeaters on Kordia towers.
Wes – JWFD matters
Selwyn – The Possum problem
QSL card from Overseas
VHF Group – Thanks for donation of \$100.
TradeMe Buyers
NZART Infoline - advertising Western Springs Garden event at Easter weekend.

Received ZL1WAL / ZL1TUJ

Correspondence Out:

Wes JWFD suggestions
Robert – Newsletter first draft
Auckland Council asking for key to (Scarbro's) toilet block
TradeMe Buyers

Approved ZL1TUJ / ZL1WAL

Finance:

The Treasurer presented the Finance report stating that \$7,000 has been reinvested in a Term Deposit at Kiwi Bank. \$1,000 was credited to the ASB Savings account (earning 3.1%).

Received ZL1WAL / ZL1TUJ

Expenses requiring approval to pay:

Higgins	Lawns	\$18.40	Feb 2013
Ray	Headphones x 3	\$36.00	For Fox hunting
	Print cartridges	\$131.80	
Orcon	Broadband	\$75.00	Direct Debit each month
AMSAT-ZL	Subscription	\$15.00	Agreed unanimously
Post Office	Post Box rental	\$170.00	
Wallace	Clean Port-a-loo	\$35.00	
Wallace	Certificate frames x 2	\$10.00	
Wallace	TradeMe postage	\$32.20	Collected from the buyers
Steve	JWFD meals	\$51.00	

Approved ZL1WAL / ZL2RED

Half of the Branch Members have paid their subscription

Invoices for Subs – 26 letters were posted out today

Raffle for 2012 ARRL Handbook is to be drawn at the Committee Meeting on Tuesday 2nd April.
The Post Box will be cleared that day, so that last minutes subscriptions will be in the draw.

Fund raising:

Auckland Council Civil Defence through AREC – applied for \$3,500. See AREC report.

Lotteries application – Ready to be submitted, subject to application via AREC to Civil Defence

Sale of equipment (photos and descriptions for TradeMe auction has been done)

– So far, four items are being auctioned; two items were sold

Drive for Members - Schools and Educational Institutes – James ZL1KNI demonstrated VHF to Grammar School physics class boys today with Ray, Jeff and Wallace on the net. He reported some interest by the boys. A fox hunt is also planned for them. No further fox hunts were taken to the Orienteers events in local parks. Work is being done to improve reliability of the 80 m gear.

AGENDA (5th March Continued)

General business

Reports:

JWFD contest – Wes gave tribute to Gwynne and Steve for setting up and testing antennas beforehand and especially to Gwynne for his thorough planning and submitting the logs. Gwynne gave his analysis of these logs - stating that points varied from year to year. Our points were 411,840 and multipliers were 96. Our main competitor was Branch 77 Te Aroha (in recess) but used by ZL1CG. Only four VK stations were worked. Half an hour was lost on Sunday morning starting the generator (it had flooded). It was suggested that it should be serviced before next year's contest if this reoccurs in our monthly running / testing the generator. A vote of thanks was passed to Christine Watson and Steve for the meals that they prepared.

ZL1AJR / ZL3TE

AREC meeting on 30 February – Japie reported that other Branches had received payments of their expenses. He will follow this up with the AREC Chairman and report back to George. The Whangarei Rally will be held on 18-19 May. Volunteer VHF operators should contact Japie.

Maintenance – Painting of the South wall is to be done on 16th March (General Meeting day)

Possum. Wallace has lent his cage. The Trellis needs to be blocked before cooler weather.

Beam Alignment – to be rescheduled - possibly 16th March

Battery charger – Wallace to collect this from Vaughan when he collects the foxes.

Remotely operated station – Wes will ask Andrei if he will **assist George**. Meanwhile for the last six months, the station has not been usable. Other plug-in boxes need to be detached.

Printer / Scanner - New print cartridges were installed. No other printer is required.

Antennas – A hatch and alternative placement of the beam rotator for the benefit of Station 2 was suggested and rejected. At the previous meeting it was decided to use Jones plugs to extend the leads so that the controller could be operated from either Station.

Robert spoke about his research into a new (Supa-Dupa) beam which he will submit in writing to the Committee.

Coax cable. It was observed that excess length coax from Station 2 to the beam was causing 1db loss. A shorter length should go through the holes already in the wall.

Voting for President of NZART

That the Committee recommend to the next General Meeting to vote for Vaughan ZL1TCG as President of NZART.

ZL1TUJ / ZL3TE

Toilet block (in the main building) - Auckland Council have provided a key (with a green tab), which is kept on a hook beneath the Alarm Pad just inside the doorway of the clubroom. Only the first stall should be used, and the sign will be changed to indicate "ZL1AA" use. It will be opened every Saturday.

Port-a-loo. The future of the Port-a loo was discussed because more frequent emptying and cleaning has been required in the last twelve months. It was suggested that this might be shifted (from the North side facing) to reduce smells entering the clubroom. It should only be used in wet weather or emergencies. It was suggested that the light could be replaced with a battery driven sensor and LED light.

Future events:

Waterblasting and painting south wall – Saturday 16th March

St Heliers Fair – Wallace to enquire about its date.

Inter-Branch Fox hunt – Advertised to other Branches to be held on **20th April** (our General Meeting day) at Churchill Park using 144.7 MHz. Wallace is to convene the event and co-opt others.

St Heliers / Glendowie Scouts/ Guides foxhunt and winter demonstration on 1800-2000 hours. Wallace will liaise with their Leader.

Examination tutoring material:

NZART has posted a completely new system on their web site. Selwyn has written notes (in a yellow folder) to guide users of the computer to access the 242 pages of tutoring material for students.

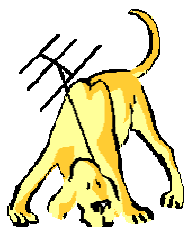
Cancelled General Meeting: Last month's General Meeting was abandoned at the last moment without notice because only one Member was in attendance beside some Committee Members.

Meeting adjourned at 21:45.

Matters on the agenda of that were not discussed:

Job assignments:

Program of Speakers / Topics for Monthly General Meetings



THE FOX HUNTING PAGE

By Wallace ZL1WAL



To find out more about Amateur Radio Direction Finding (ARDF) see my explanatory article that appears on page 10-1 of the latest Call-Book. Or watch a six minute introduction http://www.youtube.com/watch?v=UPLWCc_rDqk

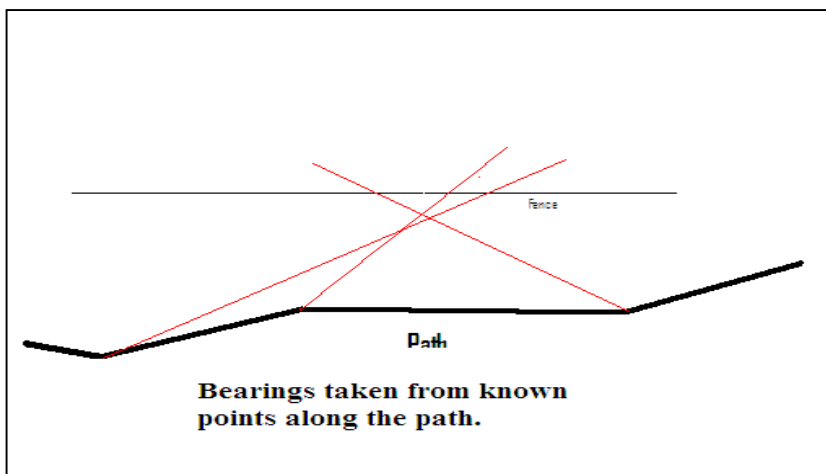
Sniffing

Good sniffing is a practiced art, no matter what equipment you are using. You need to learn to judge signal strength and distance by the strength of the signal or reading of your S meter. And if your sniffer has a meter, don't get so wrapped up in watching the meter that you ignore some obvious clues. For example, within 2 metres of the fox, there will be an orange and white prism at eye level that gives its presence away.



Take every opportunity to triangulate. By taking multiple bearings along a path from known places along it, you will pinpoint the location of the fox.

In this illustration, going from left to right along the road, it will pay to go the extra distance along the path to its next bend, and take the third bearing rather than bush-bash towards a vague position of the fox.

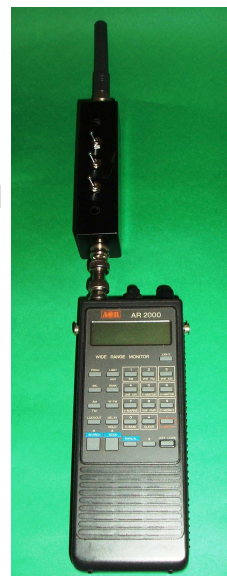


Perform mental triangulations as you go. Remember that sometimes there may be more than one source of the signal that is caused by a reflection from some object. In the case illustrated, it is likely that the fence will be a reflector. Therefore, hunt the peak, not the null. This way you will be less likely to be fooled.

Inter-Branch Fox Hunting Competition 144.7 MHz

This event has been scheduled to be held at Churchill Park in Glendowie on Saturday 20th April. Competitors will start after 1 pm from the Scout Hall in Kinsdale Avenue. Our previous newsletter described this area and suggested that you visit it beforehand. A map is included here for you to print and become familiar with its legend.

Now is the time to research and construct an antenna for your hand-held radio. Reference was made in last month's newsletter to a loop antenna that was described in the January 2013 edition of the ARRL magazine. Last year in April's newsletter, are the construction details of a yagi made from lengths of tape measure. This newsletter also shows an attenuator that is really useful to ensure directivity when you are near the fox.



Comparison Between Different Antennas

ANTENNA	FORWARD GAIN	FRONT / SIDE REJECTION	RADIATION RESISTANCE
1/4 λ Vertical	1.45 dBi	0 dBi	21 ohm
Vertical Dipole	2.13 dBi	0 dBi	72 ohm
Delta Loop (Equilateral)	2.96 dBi	2.4 dBi	115 ohm
Quad Loop (Square)	3.30 dBi	3.8 dBi	126 ohm
Delta Loop (Compressed)	3.55 dBi	5.2 dBi	31 ohm
Rectangular Loop	4.55 dBi	8.3 dBi	32 ohm
Half Square	4.83 dBi	8.3 dBi	32 ohm
ADR Loop	5.25 dBi	26.1 dBi	63 ohm
Bobtail Curtain	6.46 dBi	99.9 dBi	34 ohm
SDR Loop	6.57 dBi	19.3 dBi	50 ohm

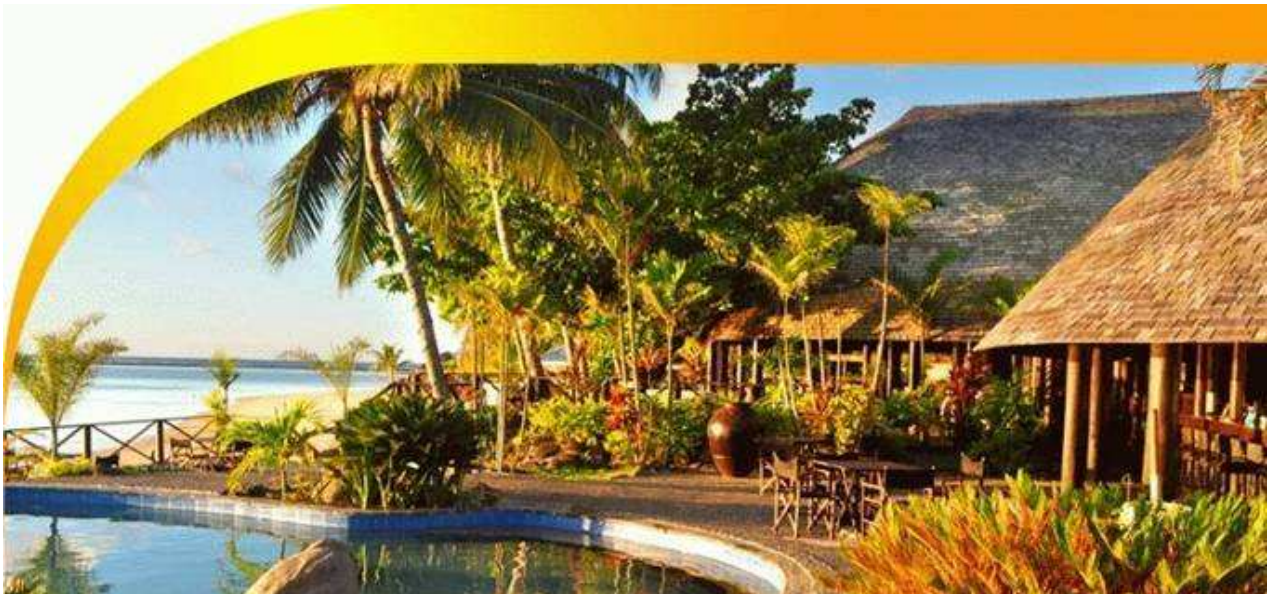
The loop antennas shown in the above table are in a vertical plane. More to come later.

Keywords::

VE2BMC, antenna, vertical, phased array, loop, four square, radiation, resistance, impedance, wavelength, MFJ, efficiency, field, strength, phaser, capacitor, inductor, loss, HF, HAM, radio, frequency, Mhz, ohm, homebrew, design, take off angle, near field, radial, ground, quality, delta loop, rectangular loop, ADR loop, SDR loop, ground plane, free space, dBi, feed point, 1/4 wavelength, Yaesu, Kenwood, Linear, amplifier, FT, TS, mutual coupling, ohm, polarization, vertically, horizontally, feedpoint,

By: Jimmy Blanchette

Acknowledge <http://ve2bmc.com/ANTENNA.htm>



We are pleased to announce that from

April 4th to 18th 2013 a German team will activate Samoa, IOTA OC-097

from Le Lagoto on Savaii in the northern part of the island - grid AH36TN

We will be QRV from 80m to 6m in CW, SSB and RTTY - including 60m - and on 2m EME.

Planned are four simultaneous short wave stations with solid state amplifiers with various antennas...

We will be happy to see you in the pileups...

Klaus has contacted Musick Point Radio Group Inc. and wants to work ZL Branches and individuals. See his link at <http://5w0m.hkmann.de>

You will need this for the next Inter-Branch Fox Hunt Inter-Branch Competition on 20th April.

