



**Auckland Branch**  
N Z Association of Radio Transmitters Inc.

## **NEWSLETTER**

**October 2012**



# **GENERAL MEETING**

**Clubroom, 400 St. John's Road, Kohimarama**

**Saturday 27th October, 2012**

(Note that the 3rd Saturday is Labour weekend when many Hams will be assisting at JOTA)

**BBQ at 1200 - 1300 hours**

**Meeting starts at 1330 hours**

### **Agenda**

- Reports from your Committee
- Other business

**Working bee to erect loop antenna**

**Western Branch Equipment Sale - Saturday 13 October**

At 217 Rosebank Road Primary School Hall 9am to noon.

**JOTA at Camp Maynard, Albany - Saturday 20th October**

Ph: 446-0089 Graham Barton ZL1GMB North Shore Branch to offer assistance.



## From the Secretary, Wallace, ZL1WAL

### Last month's meeting:

In preparation for the Civil Defense National "Shakedown" exercise on 26th September, we devoted some time after our last General Meeting to learn about, and understand, the AREC Communications Plan that has been defined by the Auckland Regional AREC Committee. We learned about its hierarchy of command, the call signs and the frequencies to be used by Members communicating with our Section (Auckland Branch Clubroom) and by our Section communicating with the District Station (VHF Group).

### Shakedown:

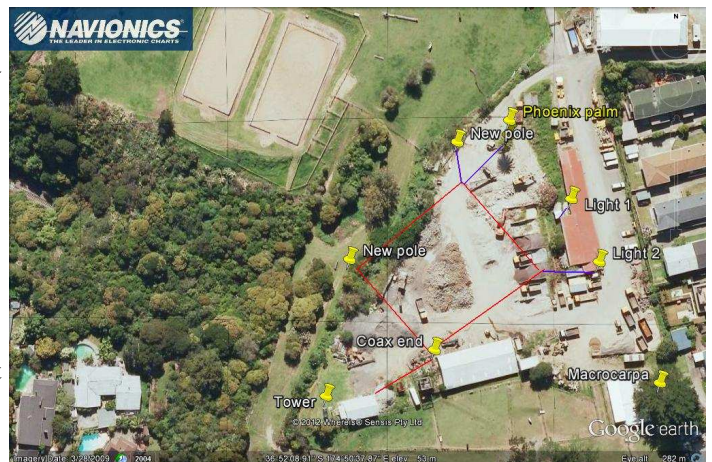
At 9:26 Steve, our Deputy AREC Leader, activated the Auckland Branch Section, whose call sign is ZK1EA, on 147.575 Simplex and asked for Branch Members to check in. To each he assigned a call sign: e.g. Ray was assigned ZK1EAR. Then he reported to the District AREC on 146.625 Repeater, as did all the other Sections. Shortly afterwards, the command was given to stand down. No messages were passed. While it was a very simple exercise, it shook out some of our weaknesses. For example, I had to erect a Slim Jim above my roof line in order to make a Simplex call to our Clubroom only 2 km away.

**JOTA:** Whereas we usually meet on the 3rd Saturday of each month for our Members' General Meeting, we decided to postpone this for one week so as to avoid Labour weekend. At this time in previous years, some Members have provided assistance to North Shore Branch at Camp Maynard in Albany where hundreds of Scouts converge to earn their Communications Badge. See front page for contact detail if you are able to assist on any of the three days.

**Antennas:** As I write this, concrete is setting in some large barrels to be used as antenna pole bases. After our General Meeting on the **4th Saturday** 27th October we shall erect a large loop antenna and thus make better use of "our" vacant section while we can. Helpers are welcome to form a working bee to hold guy wires, etc.

### Purge of Membership list:

NZART-HQ sent us a list of Call signs that have not been activated since RSM introduced their SMART system. I was able to inform them about past Members of our Branch that are now Silent Keys. Hopefully other Branches are doing the same. Thus a better Call Book will be issued next month. Any Call signs that remain on the list will be printed in a separate section of the Call book and these Call signs will become available after 12 months.



**Finance:** I have just posted dunning letters to Members for subscriptions owing. At Branch level, while it costs us nothing for us to send out newsletters by email, nevertheless we need the revenue to cover extraordinary expenditure this year to reinstate a phone line for the remotely operated station (See Minutes.) The services that we voluntarily provide include:

- On-time and free access to this newsletter
- Facilities for good speakers and lecturers at our monthly general meetings
- Antennas and operating stations, including a remotely operated station
- Discounted components
- Access to test equipment and technical help when needed
- Help to widows or estates in the sale and/or disposition of their radio gears after a lifetime of accumulation
- A functioning AREC section
- Fellowship

In addition to our 40 Branch Members, there are another 20 NZART Members who are attached (by NZART) to this Branch and whom I 'phone or write to each year - mainly to invite their votes on remits - for we do not know their e-mail addresses.



**Congratulations:** It is pleasing to read about the successes of some of our Members in contests. Being placed first against the rest of the world is a great achievement, for Andrei ZL1TM, Wes ZL3TE and Paul ZL1AJY. Others whom I have not mentioned, should let me know because, in a future issue of this newsletter I would like to feature such successes.. For example, how many of you are in the Century Club?

**Broadband / LAN:** A year or two ago, Ethernet cables were laid under the clubroom in preparation for a LAN to connect a computer placed at each station, to the server. This LAN enables each station operator to get internet access to **Band Master** (which downloads DX spots), provides **QRZ** lookup and integrates with **Ionoprobe** for hourly propagation prediction that interfaces to **DX Altas**. This suite of programs may be used to visually point to DX spots and automatically tune the transceiver. Such a method of operation utilizes the power of the internet to enhance our enjoyment of our hobby. I have found it so at my QTH. This will be explained and demonstrated at a future General Meeting.

# ***Auckland Branch, NZART (Inc.)***

## ***Minutes of General Club Meeting***

**On:** Saturday, 15<sup>th</sup> September 2012 at 1300 hours  
**At:** Clubrooms

**Present:** Steve ZL1FS (presiding), Wallace ZL1WAL, Ray ZL1AJR, Gwynne ZL1AAR, Rob ZL1RED, Japie ZL1JJN, Ian ZL2ATD, Allan ZL1AJH,

**Apologies:** Colin Robinson ZL1TJK.

Sustained ZL1FS / ZL1JJB

**Minutes of the previous General Meeting** on 18<sup>th</sup> August 2012 at Clubroom.

Having been circulated (in September newsletter), these were taken as read and approved:

ZLAAR / ZL1JJN

### **Reports:**

**Finance:** Funds in the savings account have been transferred to the Cheque account to meet current debts. No major expense can be contemplated this year until more equipment is sold. Donations were made by Gwynne and Ray for new batteries.

### **Batteries:**

A new 1100 Amp-hour battery (3 x 4v) was purchased and has been installed. It measures ½ m<sup>2</sup>. A circuit breaker is needed for it. The manual will be updated by Steve. A cover is needed to prevent accidental contact. Wallace will supply it. Steve has bought one of the replaced batteries.

**Generator:** This has been run. However fresh fuel is needed.

**Antennas:** Tubs will be filled with concrete in time for next month's antenna erecting / testing exercise.

**Phone:** Orcon are the ISP and VoIP is provided using the same phone number: 528-2039.

**Photocopier:** This has been fixed. (Note that the HP 3 in 1 printer does not print black, therefore it is not suitable for use as a copier).

**AREC:** A national AREC exercise will be held on 26 Sept at 9:26 am, in conjunction with a national Civil Defense exercise.

**Fund raising:** Equipment for sale is listed on the notice board; and soon will be auctioned.

**Next month's General Meeting:** We intend to have a working bee for erecting new antenna(s) in the yard while the section is still vacant.

**Meeting closed at 1400 hours.**

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### **AREC:**

Japie, AREC Section Leader, pointed out that AREC's communication procedures have been defined; so like it or not, they should be adhered to without equivocation. Steve, Deputy AREC Leader, explained the lines of communication.

The **Command** station for the Auckland Region ZK6R has three **Districts**: Papakura, North Shore and Auckland VHF group.

Each District station has its own Section stations. So Auckland Branch (together with Western and the VHF Group) is a **Section** station under the Auckland VHF Group **District** station whose call sign is ZK1EE(Z).

Auckland Branch's call sign is **ZK1EA**.

When activated, the AREC Section Leader (or his Deputy) will poll Members on **VHF 147.575 Simplex**, and assign each Member with a call-sign, typically, ZK1EAG for Gwynne, ZK1EAR for Ray, ZK1EAW for Wallace, etc.

Members should allow 15 minutes after the alert (a warbling siren) for someone (typically Steve) to reach the Branch clubroom and establish a link to the Auckland VHF Group District Station (which is on 146.525 R).

At least two people are needed to staff the Branch stations at all times. So Members should be ready to be called in.

Message pads are provided.

Members may listen on HF 3,900 USB or 7.100 USB, but they must not transmit on this frequency because these frequencies are used as the link from the Command station to the District stations.

After the Shakedown, the AREC Regional Committee will meet to evaluate the procedures.

No message handling was undertaken.

**This meeting concluded at 1445 hours.**

# Auckland Branch 02, NZART (Inc)

## Minutes of Committee Meeting

**Date / Time / Place:** Tues 2<sup>nd</sup> October 2012, 1930 hours / Clubroom

**Attendees:** Steve ZL1FS (presiding), Wallace ZL1WAL, Ray ZL1AJR, Japie ZL1JJN, Gwynne ZL1AAR.

**Apologies:** George ZL1TUJ,

Sustained ZL1FS/ ZL1AJR

**Minutes** of the previous Committee meeting on 4<sup>th</sup> September 2012

Taken as read and approved ZL1WAL / ZL1AAR

### Correspondence In:

Newsletters: North Shore, Franklin, Hibiscus Coast, Music Point  
NZART – list of call signs that have not been activated on SMART  
Japie – AREC comms plan.  
Selwyn – Reminder about web page not having been updated  
Selwyn – Comm Centre special (ISP speakers for sale - \$300)  
Dennis ZL1TAY – Scanners UNIDEN UBC 92-XLT for sale \$70.00  
Paul ZL2CQ – links for Newsletter material  
Members - subs owing

.Received ZL1WAL / ZL1FS

### Correspondence Out:

NZART informing about silent keys that are on the list  
Bill Schlef re activating his call sign  
Andrei – Asking to update our web page  
Ian ZL1UMX, Steve - list of Neil Cromarty's gear for sale at Tauranga  
Vaughan – Pick up battery charger – he has not responded recently.

**Arising:** Gwynne said that he knew of some SKs on the list, and he would advise NZART- HQ directly.

Approved ZL1WAL / ZL1FS

### Finance:

The Treasurer presented the Year to date Finance report.

He stated that after paying the expenses (listed below) and providing for next month's budgeted expenses, the bank balance will be reduced to nearly zero. However there are funds in a Term Investment that matures in February 2013.

Therefore the sale of components on TradeMe is urgent.

There are some outstanding subscriptions amounting to \$300 that he will chase.

Received ZL1WAL / ZL1FS

<b>Expenses: -</b>	Keys	\$24.00
	Lawns	\$36.80
	Copier	\$201.25
	Telecom	\$38.10

Approved ZL1WAL / ZL1JJN

### General business:

#### Reports:

**AREC Shakedown exercise:** In summary:

1. Three check-ins were made by our Members. Our Section station called in to the District Station.
2. Auckland Branch ZK1EA covers the area from Howic to Remuera and south to Manukau
3. An emergency pack containing VHF radio, batteries, antenna, and tools is essential.
4. Steve agreed to attend with Japie, the next Regional AREC meeting (Date /time TBA).
5. A suggest was made that each Branch AREC Member should establish liaison with his Neighbourhood Watch group would ensure that the population at large is able to communicate. Street Coordinators liaise with an Area Coordinator that is linked to a District. It provides voluntary "eyes and ears" for the Police. (This grass roots organization was once very strong after the spate of burglaries caused by the urban drift and unemployment in 1980, but it has largely folded after attempts to centralize it.)

## Minutes of Committee Meeting (continued).

### Reports:

**Examinations** - none. Wallace is to contact Barry Gordon ZL1AAA about a possible candidate.

**Membership** - Drive for Members from Educational Institutes. Wallace is to prepare a flyer before University and School Examinations in November,

**Batteries** –

The new 1100 Amp-Hour battery has been installed.

The Fox charger has not been available for pick up. Meanwhile the gel cell batteries will be charged individually.

**Beam Alignment** – Sunday 14<sup>th</sup> October while Steve and Japie are available together with their trucks.

**Nets** - OK

**Remotely operated station:**

Alternative software: RCForb, MixW, TRX Manager - no progress.

Steve reported that he and George had tried unsuccessfully to get the client console to interface.

George suspects a cable used between the console and the Internet router.

Relay box to select antennas—no progress.

**Maintenance:**

Sign to be affixed more securely to the wall at the gateway. Ask Ross to do it.

Drain from the sink needs to be cleared.

Tap at west side of the clubroom needs to be replaced.

**Equipment out on loan** - OK

**Web page** — being updated.

**Computers,**

LAN – working;

3 in 1 printer is working, now (Black and Colour)

**Antennas:**

A large loop has been decided

A captain of works needs to be appointed

Barrels of concrete to hold antenna pole – Wallace will fill two of them.

A list of materials is required, e.g. pulleys, shackles, etc.

Testing for the possibility of interaction with our other antennas is important.

**Photocopier** – fixed. There are adequate supplies of toner in its lower cupboard.

**Portaloo** is to be cleaned on 8<sup>th</sup> October.

**Program for General Meetings** (on 3<sup>rd</sup> Saturday of each month):

**Speakers**

**Projects**

**Oct 27<sup>th</sup>**

**Antenna erection working bee**

**Nov 17<sup>th</sup>**

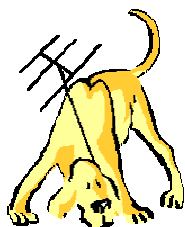
A request was made to demonstrate Band Manager and its automatic interface to tune a transceiver from DX spots, QRZ lookup, Ionoprobe and DXAtlas, To be confirmed.

**Award winners.**

Paul ZL1AJY	1 <sup>st</sup> Place	NZART Memorial Contest	Mixed Phone & CW
Wes ZL3TE	1 <sup>st</sup> Place	CQ World Wide DX	CW 28 mHz
Andrei ZL1TM	1 <sup>st</sup> Place	CQ World Wide DX	CW All bands; Low power

**The meeting concluded at 20:50 with supper provided by Ray ZL1AJR.**





# The Fox hunting page

By Wallace, ZLIWAL



## 16th ARDF World Championships Serbia, 10th-15th September 2012

The competition area is mostly forest, at Kopaonik, a famous ski resort, which is at an altitude of between 1500 and 1800 metres asl. It is not all as rugged as is shown here.



In addition to the two events for each of the Classic 144 MHz and 3.5 MHz courses, they offered a Sprint course, FoxOring and a course for nine blind people. 576 competitors, representing 33 countries took part.



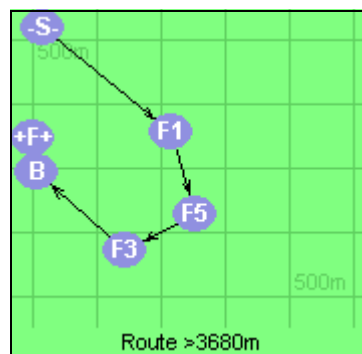
Here is the Serbian team that had only 12 competitors, Great Britain 10, USA 16 and Australia 5..

The chart below shows the number of competitors for each grade of the second combined 2m and 80m course. Note the number of helpers exceeds the competitors!

***** * ARDF World Championships Kopaonik/Serbia 2012 * * 12. Sept. 2/80-m-band * *****												
Competition:	12.09.2012 from 10.00											
Band/Limit:	80+2-m-band / 150 min											
Competitors:	W 19	W 21	W 35	W 50	W 60	M 19	M 21	M 40	M 50	M 60	M 70	Comp- etitors
	22	28	24	15	12	35	40	49	43	44	26	=338
												=348

Below is a tabulation of a typical course's results showing the detail that was recorded.  
**M60 Route S-1-5-3-B-F >3680m M60 Route S-1-5-3-B-F >3680m**

Pl	Name	Run times Fox-to-Fox
1	Oleg Fursa	<u>16'51</u> *+ <u>08'05</u> *+ <u>09'31</u> *+10'28*+01'15* = 46'10
2	Heinrich Götte	21'55 +09'01 +15'29 + 09'25 +01'17 = 57'07
3	Branimir Vinko	17'12 +11'08 +21'49 +13'38 +01'14 = 65'01
5	Željko Belaj	26'15 +09'08 +17'52 +13'14 +01'17 = 67'46
7	Alexandr Kochergin	27'34 +12'18 +14'07 +16'13 +01'16 = 71'28
9	Siegfried Pomplun	38'50 +13'01 +17'12 +12'00 +01'19 = 82'22
10	PIETRZYKOWSKI	46'15 +10'27 +14'34 +11'48 +01'17 = 84'21
12	Bo Lenander	22'40 +11'54 +42'52 +09'59 +01'28 = 88'53
14	Lubomír WINTER	39'40 +16'17 +21'29 +21'12 +01'45 =100'23
15	NAZHIB MUKHITOV	54'03 +28'13 +16'16 + <u>08'49</u> + <u>01'06</u> =108'27
16	SACHIYUKI YATABE	44'45 +15'28 +37'45 +12'52 +01'20 =112'10
18	Jay Hennigan	37'39 +12'58 +56'00 +17'04 +01'13 =124'54
19	István Börcsök	34'14 +52'05 +18'09 +19'00 +01'36 =125'04
21	Bernhard Gartner	51'34 +23'41 +51'16 +10'00 +01'18 =137'49



The 4th, 6th, 8th, ... competitors would have taken different routes to that shown here, but their routes are shown on separate screens.

Google [ARDF 2012 Serbia](#) and play the U-Tube of the Polish team in action on the courses. "A (movie) picture is worth a thousand words." Notice that most use loop antennas with their 80m sniffers.

# All band HF 1:1 choke balun—The “UGLY BALUN”

Reproduced from <http://www.hamuniverse.com/balun.html> Inspired by demo by Paul ZL1AJY

A balun's purpose is to allow connecting a balanced, (e.g., a dipole or driven element) to an unbalanced line such as coax which is not balanced, thus the name, Balun. **The 1:1 choke "balun" is not actually a balun.** It's function is to help eliminate RF currents from flowing on the outside of coaxial cable using the principle of choke action. Another "name" for it is the air choke.

In transmitting antennas, this is accomplished by presenting a high impedance (resistance), to RF currents flowing outside the coax shield. This forces currents in each side of a driven elements to be equal. This is especially important in beam antennas because it prevents distortion of the beam's pattern caused by unequal currents in the driver(s). In a simple dipole, the balun (choke), assures that the dipole, and not the feed line, is doing the radiating!

When you connect centre fed antennas, like dipoles, V's, triangles, yagis, rhombics, loops and so on, to coaxial cable, unless care is taken, it is not difficult to end up with **feeder radiation**. Not only can the loss in power be quite significant, but the radiation characteristics of the antenna system will also be seriously compromised. In layman's terms, it won't be what you are expecting from the pattern of your antenna.

As the feedline becomes part of the antenna, currents can flow from the line into the mains and on TV cables, metal masts and yagi booms, causing a variety of EMI problems that can be very difficult to trace. Frequently these problems are simply due to unbalance - and the solution is the humble air choke. If an antenna system is fed at center with a parallel conductor line (provided that correct installation procedures are followed) balance will be maintained, **USING A BALUN**, with currents in equal and opposite phase canceling each other out.

When the connection is to a coaxial cable, **WITHOUT A BALUN**, this cannot occur because currents flowing inside the cable from the connection to the inner conductor are separated from those flowing on the outside from the connection to the shield, and the result is unbalance causing feeder radiation. However, if the two electrical circuit elements (antenna and coaxial cable) are coupled using a balun, balance will be maintained.

Enter.....The Ugly Balun!.....

18 to 21 feet **should** cover all of 160 through 10 meters. The number of turns is not critical because the inductance depends more on the length of the wire (coax) than on the number of turns, which will vary depending on the diameter of the plastic pipe that is used. Solid-dielectric coax is best for this application because foam-dielectric has a tendency to allow a change in the conductor to conductor spacing over a period of time if it is bent into a tight circle. This can eventually result in voltage breakdown of the internal insulation.

