GENERAL MEETING

Clubroom, 400 St. John's Road, Kohimarama
Saturday 21st July, 2012

BBQ at 1200 - 1300 hours
Meeting starts <u>earlier</u> at 1300 hours

(subject to a quorum because many Members may be attending the Junk sale at Whangarei)

Agenda

- **Reports from your Committee**
- **Approval of payment of insurance expense (being over $300)**
- **Other business**

Visit the Telephone Exchange at 1330

Members will be able to inspect the Telephone Exchange in small groups.   Smoking or carrying a cell phone is not permitted within the building.

(Our thanks are owed to Telecom who are sponsoring this visit to their Chorus subsidiary).

From the Secretary, Wallace, ZL1WAL

Subscription: (Wearing my other hat as Treasurer):
May I express my thanks to Members who paid their subscription ($30) by direct banking into our ASB account: **12-3047-0076823-00.** This makes my life easier.

List of Members: There is a list of members on the notice board at the clubroom. It is both a register (for Incorporated Societies) and contact information. This is **not** published on our web page at www.qsl.net/ZL1AA . However our web page does show a directory of the Committee and other persons assigned to various tasks.

Contact the club:
 Email: **ZL1AA@NZART.ORG.NZ** The Telephone number is **528-2039.**
The VHF radio is always on and is tuned to the Musick Point repeater 145.775 MHz.

Remotely Controlled Station: An extraordinary effort is being made over the next three months to make this station fully operational and reliable now that the telephone line is installed. Members need to download Ham Radio Deluxe version 5.xx which is freely available only until the end of this month after which version 6.xx will be released and will cost US$80. The new owner, Rick W4PC, is making fixes and improvements that you may see on web page www.hrdsoftwarellc.com/
If you have an hour to spare, listen to his presentation on http://www.youtube.com/watch?v=rf5JTMfOaq4

This newsletter contains instructions (E&OE) about how to get connected. Limiting sessions to 1 hour is deemed practical for sharing this service. And good manners suggest that you indicate your intentions by leaving a text message on Skype at "ZL1AA" so that other intending users can see when it will next be available.

Visit to the Telephone Exchange:
Jack Findlay, a Chorus technician will host us next Saturday after noon after our usual BBQ and General Meeting
Their policy about protecting the network has been explained to us: as follows:
    No Smoking
    No cell phones
.
Antennas:
The Committee is giving consideration to using the vast section while it is vacant to erect a large loop antenna. The phoenix palm is 120 metres from our main mast and there are light standards that we could use as supporting corners to such an antenna. Therefore we shall devote one General Meeting Saturday to this project. Ideas and willing hands are welcome; probably in August, weather permitting. We are mindful that improvements are required for our JWFD 80 metre antenna., Therefore tests of various antennas should be done before our in-depth discussion scheduled for October.
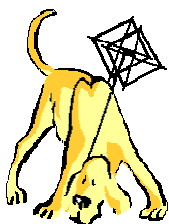
2O12L: Our Member Jeff Lowe ZL1TOU is attending the games, and tells us that he plans to visit 2O12L while he is there.

Contests

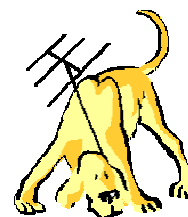Rob, ZL3AKM, is the new contest manager for the VK / Trans-Tasman contest.

As part of a consolidation of the Trans-Tasman contest activity, these contests are now held on two nights instead of four, and both 80m and 160m CW and Digital contests have been combined with the 160m phone contest on the 21st July.

Brass Monkey Contest, all bands 50 MHz and up, on Saturday the 4th and Sunday the 5th of August 2012. The operating times are: Saturday 1700 to 2300 NZST and Sunday 0700 to 1300 NZST.

A fox hunting footnote
By Wallace ZL1WAL

Infoline 255 is advertising a book about ARDF IARU Championships - a collection of all events since 1961 €27.50.

The 16th ARDF World Championships are to be held in September in Serbia.

Auckland Branch 02, NZART (Inc)
Minutes of Committee Meeting

Date / Time / Place: Tuesday 3rd July 2012 / 1938 hours / Clubroom

Attendees: George ZL1TUJ (presiding); Steve ZL1FS, Wallace ZL1WAL, Gwynne ZL1AAR,
        Japie ZL1JJN, Ole, ZL1OLE, Ray ZL1AJR.

Apologies: Wes ZL3TE

<div align="right">Sustained   ZL1WAL / ZL1AAR</div>

Minutes of the previous Committee meeting on 5th June 2012

<div align="right">Taken as read and approved ZL1WAL / ZL1TUJ</div>

Correspondence:
In:
Newsletters: North Shore, Franklin
Mercury Energy – threat to disconnect power supply (Reconnection fee is $72.00)
NZ Post seeking applications for Community Post subsidized envelopes.
NZART acknowledging the SKs on our Attached Members list, and undertaking to delete them.
Selwyn re VHF Group newsletter being sent to him instead of to the Branch.
Ole gave notice that he has to leave NZ because he does not have a working visa. He needs an employer who is prepared to sign an application to support his permanent residence here.

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Out:
Auckland Council re Chorus' use of driveway to allow cherry picker to access their tower.

<div align="right">Received and approved ZL1WAL / ZL1TUJ</div>

Arising:
Secretary is to stave off disconnection and ask City Council whose responsibility it is to open an account with Mercury Energy. [Auckland City have since assumed ownership and continuity.]
Meter readings have been recorded at our clubroom sub board at the time of each Committee meeting (and reported in the Minutes). Since Scarbros have gone, electricity readings at the property's main board could exceed our usage.

Finance:
The Treasurer presented the Year to date Finance report. He noted that most subscriptions have been paid including some previous years' subs and some NZART members attached to our Branch but never seen.
The Treasurer was thanked for his perseverance in contacting these people, many of whom were pleased to be called once a year.

<div align="right">Received ZL1TUJ / ZL1FS</div>

Payments requiring approval:
Scarbros – balance of account owing $300.00
Higgins – Lawns (3 cuts) $55.20
Insurance - $579.16 This payment needs to be ratified at the next General Meeting of Members because it exceeds the constitutional spending limit by the Committee of $300.00.

<div align="right">Approved ZL1TUJ / ZL1AAR</div>

Budget: The budgeted loss for the year ($500) has been exceeded and now stands at nearly $1,500. This is largely due to the unbudgeted cost of trenching the telephone line ($1,300) and Telecom costs.
The loss for the year ending 30 November is likely to be $3,500.

Support of the Remotely Controlled Station was given a deadline of 3 months to be reliantly operational.
The realization of "User-payers" is negligible because most Members in Rest Homes do not have a computer and a broadband connection.
Set up of Ham Radio Deluxe has stumped some other potential users.
Alternative software has not been investigated. E.g. TRX Manager costs €70 p.a.

George (its Manager) has undertaken to raise $2,000 p.a. as an emergency communications facility benefiting Auckland in time of disaster.

MINUTES OF GENERAL MEETING

Saturday 16th June 2012 at 1330 hours

Attendance: as per the attendance book -- 9 members.

Apologies: George ZL1TUJ; Wallace ZL1WAL; Ray ZL1AJR;

Minutes of previous General Meeting : taken as read, confirmed and carried. AAR/KNI
Vice President.Steve ZL1FS presided at the meeting and welcomed to the club, two new Members who have recently sat and passed their 'Ham License":
    Giovanni Viana ZL1BRA and
    Eric Richards ZL1ERI.

General Business:
1.   An enquiry was made from the floor about comment heard within Auckland that there was to
      be some rationalization of the repeaters in the greater Auckland area. Steve answered that
      yes, this is true but it is early days yet. With on-going costs, consideration has to be given as
      to the number and future of Auckland region repeaters.
2.   Mention was made that our club is facing high 'one-off' expenditure this year and that 'subs'
      will not cover all operating expenditure for the current year. The Committee is investigating
      means by which assistance can help overcome this situation.

Meeting closed at 1440 hours.

A DVD was then shown to the meeting of Mark Jones's trek across the Ureweras. Whilst this
crossing was not special in itself, Mark accomplished this three week journey, starting without
food and living off the land by eating deer, eel, trout, berries and plant greenery. He did take salt
and pepper!!! Hence the title of the DVD being 'The salt and pepper Hikoi'

The DVD was well received and enjoyed.

COMING UP:

Franklin Amateur Radio Club Junk Sale—Tuesday evening commencing 1930 hours
This is a conducted sale of amateur and electronic gear to be held at their Clubhouse, Stadium
Drive, Pukekohe. Buyers are asked to pay the runners on the night.

Whangarei Equipment Sale—Saturday21st July doors opening to buyers at 1030 hours. This
is a table sale held at their clubroom, Heritage Park, SH14, Whangarei.
The Auckland VHF Group will be attending with a trading table.

Refreshments will be available and a scrumptious evening meal will be served at 1800 hours for
only $15.00 per person. After dinner activities are planned.

AMSAT—OSCAR 7 celebrates 10-year new lease of life.
Amateur satellite AMSAT—Oscar 7 was launched in November 1974. It worked for around 8
years, until its batteries short-circuited in mid 1981. 20 years on, the batteries mysteriously
went open circuit and the satellite came back to life, operating purely from its solar cells. On
21 June 2002, the satellite was heard again. The full story is at www.uk.amsat.org/8524

THE EQUIVALENT SERIES RESISTANCE METER

Anybody serious about electronic repair today should think about including with their other test equipment, an E.S.R. meter (Equivalent Series Resistance). It certainly helps with making some repairs easier. Just as batteries have a phantom 'internal series resistance' so also do electrolytics. As electrolytics age, their ESR goes up to a point when say a old Video Cassette Recorder (VCR) fails to power up after a power failure. The reason being, if it is powered by a switch mode power supply, over the years the heat generated in the power supply has added to the aging of the electrolytic and pushed the ESR up so high that the VCR will not switch back on when the mains power is restored.

I first became aware of ESR meters in early 1996 when an Australian Electronics Technician Bob Parker, designed and made a two digit auto ranging ESR meter and had his project published in the 'Electronics Australia' magazine. You can read about his MK 2 version published in a Silicon Chip magazine March/April. This meter not only measures ESR of electrolytics but it can also be used to check resistors from 0.01 Ohms to 99 Ohms. However, the contact resistance of the clip test leads might upset the reading if one tried to measure a resistor getting as low or close to 0.01 Ohms. The meter is easy calibrated for close to 0.00 Ohms when the test leads are shorted together and the on/off button is pressed.
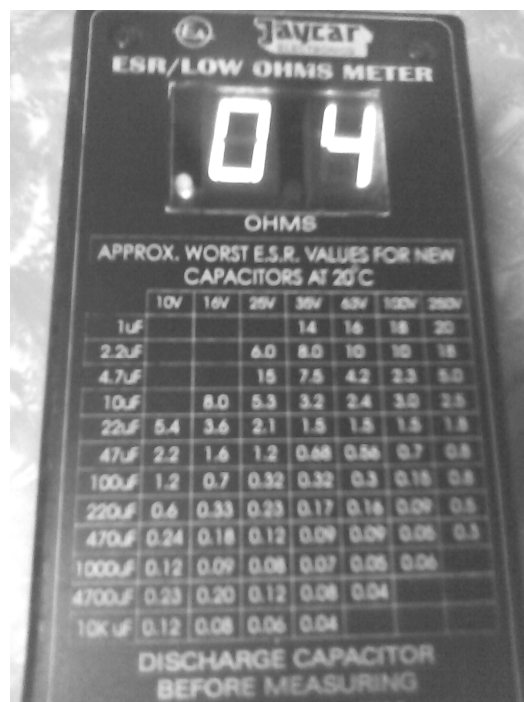
My MK1 version has served me well over the years. The first thing to remember is to make sure that all the electrolytics have been shorted or discharged. The next step is to measure the ESR of the capacitor and compare it with a table or graph printed on the front panel of the meter. It might seem a bit of a nuisance but when you consider it speeds up the time on repair, it is worth it, and might even save you buying a part that does not need to be replaced.

Just to give an example: a 1µfd 35V electrolytic has a ESR of 14 Ohms (or at least it does on this meter) and a 1µfd 250 Volt electrolytic has an ESR of 20 Ohms. So if you are checking a 1µfd 35V electrolytic and get a reading of say 40 Ohms, then it is well worth replacing it and any other electrolytics with a high ESR reading. Then turn on the device that you are repairing to see if the fault has disappeared. ESR values have fallen a little since they made electrolytics in 1995, so the MK2 version has slightly lower figures. As we should all know, if you add capacitors in parallel, the capacitance gets added together, but the ESR reduces, just like putting resistors in parallel.

The ESR meter cannot discriminate between the electrolytic and any surrounding low value resistors. However you can rest easy knowing the waveform used to get the ESR value, is less than 100mV so that should stop semiconductors from conducting.

If you want to read more, you could download k7214.pdf at Bob Parker's web site http://members.ozemail.com.au/~bobpar/esrmeter.htm   This gives the theory about how it works. Especially read the "ESR meter hints" page, that has been compiled by various experienced techs.

de Eric Richards ZL1ERI   [Edited]

Remotely Controlled Station

CONTENTS
- **Objectives**
- **General Policy**
- **Station management**
- **First time setup at Client's QTH**
- **Operating instructions for the Client's regular use**
- **To restart the Station at the clubroom**

The following operating instructions (for use by the Station Manager) are at the Clubroom
First time setup of the Host at the clubroom
Updating the Client user list (to allow logging in).

Objectives:
- To provide George Marr, ZL1TUJ, the owner of the Elecraft K3 with the facility to operate it from his QTH using a PC to PC internet link.
- To allow the K3 and the host computer (the Station) to be used by other members of the Branch who may have poor re-ception at their QTH or who have practical difficulties with antennas. This applies to members who are living in rest homes where their Body Corporate disallows the erection of antennas.
- To expand the range of services that the Branch offers to its members, and to others on a user-pays basis. Users at their QTH are referred to, herein, as "Clients"

General Policy:
- Overall authority over the use of the Station is vested in the Branch Trustees.
- Priority use of the K3 will be given to any member who is actually in the clubroom. He may turn down the AF or turn the K3 off.
- Clients of the Station must meet certain criteria of eligibility. This includes holding a licence to transmit in New Zealand, and being a financially paid up member of NZART and of this Branch.
- Clients must use the Branch call-sign "ZL1AA" followed by their own call-sign for QSL purposes.
- They should comply with the Amateur's code, ethics and operating procedure.
- Operation of the Station will be on a first come, first served basis. Common courtesy suggests usage should be limited to one hour sessions. At the time of connecting, a text message should be written to Skype announcing your intentions, thus allowing others to queue by writing a message and negotiating their start time with whomever is currently using it.
- Ham Radio Deluxe (HRD) is the software that has been selected to control the K3.
- Access is possible only after the Remote Station Manager has entered their call-sign and password into the configuration file of the controlling software.
- The software records usage of the Station: (date, time, mode, frequency). This log may be made available for inspection at each Committee meeting.
- No claim will be entertained in the event of malfunction of the Station or disappointment arising from its use.

Station Management:

Trustee:
- The Trustee of the ZL1AA License, has overall authority over use of the Station.
- The LogMeIn program is running on the host computer to enable the Trustee to control it (or to close it down).

Remote Station Manager:
- Day to day control of the station will be vested in the "Remote Station Manager" appointed by the Committee.
- He will maintain and update all software that is running on the computer at the clubroom. It controls the K3, Skype and antennas.
- He has sole discretion about starting and stopping the operation of the Station except as ordered by the Trustee.
- When he receives applications from Clients that meet approval criteria, he will enter their call-sign into the list of Users in the configuration file of HRD, thus allowing them access to the Station. He will also enter their Skype name in its Contacts list.
- He will have authority to delete Clients from these lists without being required to make any explanation.
- He will report to the Committee about usage of the Station.
- He will make recommendations to the Committee about its management and policy.

At the clubroom:
- Any Branch Member at the clubroom has priority of use of the K3. In this event it would be courteous to type a message in the Skype window advising your intentions.
- The AF gain may be turned down without affecting any remote user because audio from the K3 goes via line-out to the PC then to Skype.

Client:
- To become a client, an application needs to be made to the Station Manager (or through the Committee) giving evidence of meeting the criteria of eligibility to use it.
- The application when granted is a licence to use the Station in accordance with Branch Policy, in considera-tion of a fee for its use.
- The Client must use the Branch call-sign and followed it by his own call-sign for QSL purposes.
- He should comply with the Amateur Code, ethics and operating procedure.
- The Station may not be used remotely for Contests or on Club Saturdays.

First time setup at User's QTH

    The following software should be downloaded, and installed:
        Skype Version 5.x from www.skype.com
        Ham Radio Deluxe Version 5.xx from www.hrdsoftwarellc.com/
    Start > Skype.   In the Contacts list enter "zl1aa". (This is the Skype name at the clubroom.)
    Test audio volume by calling Echo / sound test service.
    Start > HRD > Connect > New > Company = Elecraft, Radio = K3
      Com port = Remote, Speed = 38400.
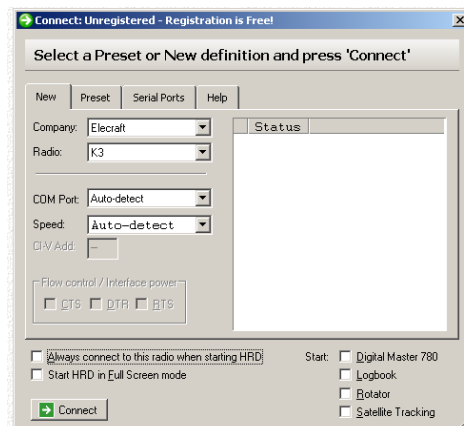   Wait until the "Connect" window is displayed, then enter:
      Address = zl1aa.dyndns.org
      Port = 7805
      User Name = {your call-sign}
      Password = {your choice at the time that you registered}
    Connect >

    The above settings are automatically saved when the program is closed.

Operating Instructions for the Client

    For everyday use:
      Start > HRD > Connect. Wait until the Station responds with a "Welcome" message.
      Next a slightly different "Connect" window is displayed. This comes from the Station. Ensure that PTT is not checked, then > OK.
      Start > Skype. On the contacts list, select "**zl1aa**" then > Call.
      Send a Skype text message to inform others of your intended finishing time.

    The K3 may be operated intuitively. However you may want to download its manual from www.elecraft.com. There are forums from which to gather information about the K3.

    A display representing the K3 will appear, though it is not identical to the K3 at the clubroom.   This is because the K3's dual purpose buttons cannot be emulated on a PC. Thus more buttons populate the computer's display than appear on the K3.

      Knobs are represented by sliders or the mouse wheel. The keyboard may be used to change frequencies / bands.

      Two sliders control the filters' pass-band width and shift. In CW mode a shoulder filter is used.
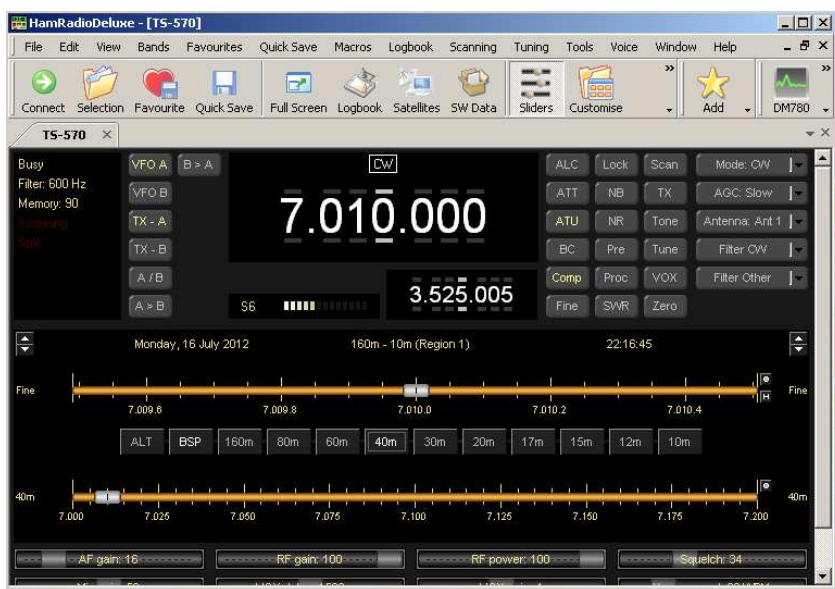
    Both 40 m and 80 m antennas are connected.   Antenna selection by band and beam rotation is under development. Antenna tuning of the K3 is automatic and the K3 is protected.

      Nevertheless, it is good practice to listen before transmitting to ensure that an antenna is connected.

    PTT is activated by the Send button.

    When disconnecting or closing the program, the settings are automatically saved.

    A manual for Ham Radio Deluxe is presently being rewritten.

    HRD provides excellent control for the DX operator. It provides a map for spotting and the grey line is shown.

    HRD provides two logs but any third party log may be used. There is a window to www.QRZ.com and LoTW

    HRD allows the Client to tailor the K3's display (colours, buttons, fonts and layout) and save it on his Computer.

To restart the Station at the Clubroom

    Power on at the wall point and at the power distribution board.

    Power on the red switch on the K3's power supply on the floor. Make sure it is free standing so as to minimize possible fire risk. Our Insurer has been advised that the host computer runs unattended.

    Power on the K3 (LHS 3rd button down). Ensure that it is displaying a frequency. This means that it will **not** be in 'Memory mode'.

    Power on the host computer and its monitor. Wait for it to boot. HRD and Skype are in the Startup menu, so they will automatically start after a long wait. Finally the Ham Radio Deluxe home page appears. It is white.

    Please do **not** hit the 'Connect" button, for this will capture the K3 and thus make it unavailable to any remote Client.

    The programs may be put on the task bar, so that other programs may be started on this PC.

    If you are exiting and about to lock the clubroom, power off the monitor to save power.

de Wallace, ZL1WAL for review by the Committee. Nevertheless notification of errors / improvements are welcome.
Eventually this will be put on the Branch web page so as to promulgate instructions for Clients intending to use the Remotely Controlled Station.