



New Zealand Association of Radio Transmitters

ZL1AA - AUCKLAND BRANCH 02

NOVEMBER

2017

**👉 General Meeting 👈
SATURDAY NOV. 18 @ 13:30**

To Dip or Not to Dip - Steve, ZL1FS

**Club Room will open at 10:30 AM
BBQ @ 12:00**

Steve will show us how to use a Dip Meter to measure Frequency



AGM Tuesday 12-Dec-2017 at 19:30

ZL1AA

Auckland Branch 02
PO Box 18003
Glen Innes
Auckland 1743

www.qsl.net/zl1aa
ZL1AA@nzart.org.nz
Skype: ZL1AA_NZ

Club Officers

President:

Wes Printz, ZL3TE
ZL3TE@dxer.com
027 227-7779

Vice President:

George Marr, ZL1TUJ
gmarr@ix.net.nz

Secretary:

Wallace Bottomley, ZL1WAL
auckland.nzart@gmail.com
(09) 575-6383

Treasurer:

Jeff Lowe ZL1TOU
jeffjanet51@gmail.com
(09) 630-0213

Elected Members:

Gwynne Rowe, ZL1AAR
rgwynne.rowe@xtra.co.nz
(09) 528-1177

Ray Chapman, ZL1AJR
ZL1AJR@xtra.co.nz
(09) 528-5410

Steve Miller, ZL1FS
dion4cy@gmail.com
(09) 908-5589

Japie Nel, ZL1JJN
jjnel@orcon.net.nz

Logan Nicoll, ZL1LMN
chillistick@gmail.com
021 0271-5660

ZL1AA Information:

Branch 02 Clubroom is located at
400 St Johns Road
St Heliers, Auckland
(Off the main road)

Google Earth:
36.869730s, 174.843860e

Clubroom is open every Saturday from
1030 hrs. for members and guests to drop
by for coffee and a chat!

General meetings are held on the third
Saturday of each month at 1330 hrs.
(except Dec / Jan).

Committee meetings are held on the first
Tuesday of each month at 1930 hrs. ALL
paid members are welcome to attend.

Affiliations:

10-10 International
NZART
AMSAT-ZL

Club nets:

Thursday:
145.775 MHz @ 1930 Steve, ZL1FS NCO
HF Net on Hiatus

10-10 Down Under Chapter Net:
28.530 MHz 2230Z Fridays
(1030 NZST Saturdays)

Branch Contacts:

Gwynne Rowe, ZL1AAR
(09)-528-1177

Branch Examiners:

Steve Miller, ZL1FS
021 0226-4981
Wallace Bottomley, ZL1WAL
(09) 575-6383

Wes Printz, ZL3TE
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Web Master:

Andrei Chatalov, ZL1TM
achatz@gmail.com

Librarian:

Gwynne Rowe, ZL1AAR
(09)-528-1177

Station Trustees:

George Marr, ZL1TUJ
Wes Printz, ZL3TE

Branch Technical Advisers:

Simon Watt-Wyness, ZL1SWW
sww@eagle.co.nz



SUBSCRIPTIONS

❖ Subscription Rates:

Regular \$45 (discounted with a \$5.00 raffle ticket if paid by 28th Feb 2017)
Youth Rate \$20

❖ Post to PO Box 18003, Glen Innes, Auckland 1743, direct credit may be made into our bank account **12-3047-0076823-00** or pay the Treasurer or Secretary at the clubrooms.

❖ A pro rata rate is offered to a new member joining part way through the year. The financial year runs from 1 November 31 October

❖ Receipts will be distributed either in person at meetings or via mail/E-mail.

❖ Branch financial year currently runs from 1 December to 30 November.

❖ A current Membership Application / Renewal Form is required with all payments to assist with accurate record keeping. Available from the Secretary, or by download http://www.qsl.net/zl1aa/br02_mem_form.pdf

❖ All members' information is kept confidential unless approval is given for it to be released.

Newsletter material submissions are welcomed and appreciated by your editor. You may submit material in a variety of file formats: .TXT .DOC, or just plain old E-mail. Photos are accepted also. Please submit material via E-Mail to: ZL3TE @ dxer.com I will use what I can with the space available at the time of newsletter editing.

From The Chair...

The main Contesting event will be the **CQWW DX CW** on the weekend of the 25/26 November. Last Month at ZM4T during the SSB contest the team logged 2,940 QSOs - Not bad for poor Conditions. 275 of those were on 10M.

The Club has received a few pieces of test equipment, **which will be sold separately by Silent Auction**. As there are multiple parties interested, your committee decided this would be the best option.

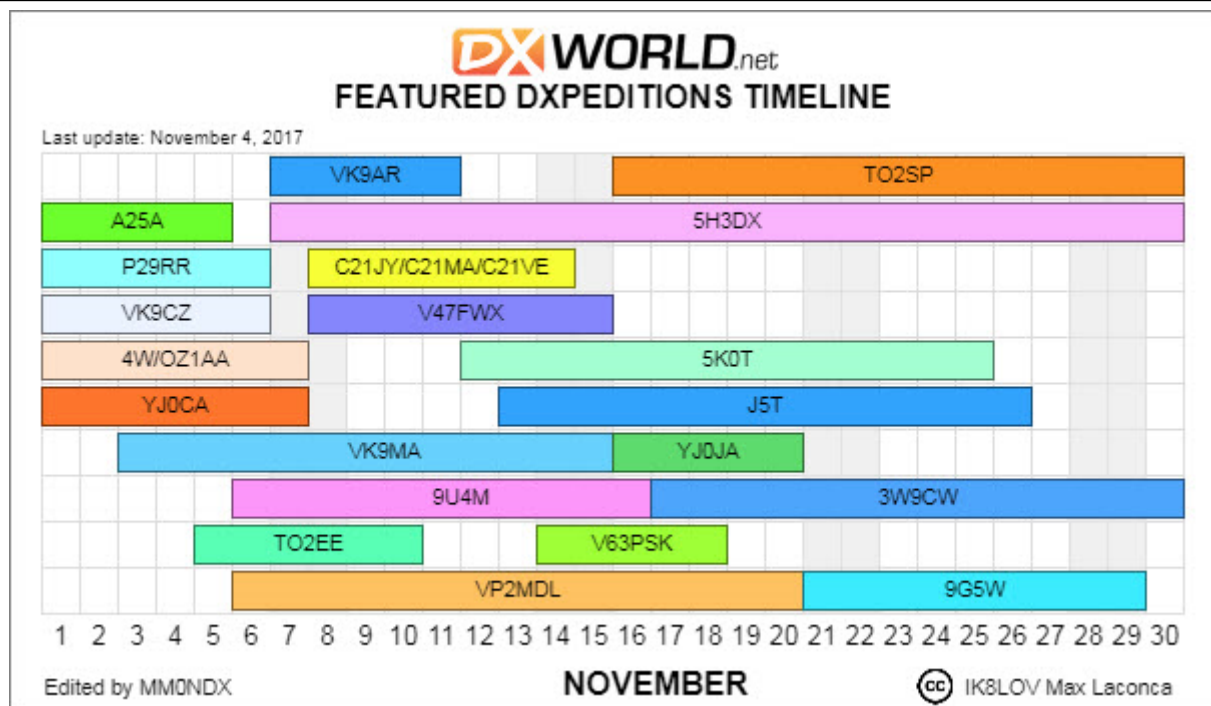


ALL Bids are to be E-mailed to Jeff, ZL1TOU jeffjanet51@gmail.com The closing date will be Friday Dec 8. Bid as often as you like, The highest bid on each item will be deemed the winning bid. Winning bids will be announced at the AGM. Winners will be able to make payment arrangements with Jeff. See Page 10 for images.

The items are:

1x PROTEK	Signal Generator 100KHz - 150MHz Model B-813 \$50.00 Reserve
1x LEADER	10 MHz Function Generator Model LG 1311 \$50.00 Reserve
1x TEKTRONIX	Mixed Signal Oscilloscope Model MSO 2024. \$700.00 Reserve. (NEW 3,500 USD)

73, Wes, ZL3TE



Looking for something to do on the weekend? Need to fill some more DXCC Challenge slots? work new Countries, work new modes? Why not operate a short while in a contest. There are several to choose from. More Information can be found here:

<http://www.hornucopia.com/contestcal/weeklycont.php>

NOV 14-21

- LZ DX Contest: Nov 18 / 19
- All Austrian 160-Meter Contest: Nov 18 / 19
- REF 160-Meter Contest: Nov 18 / 19
- Feld Hell Sprint: Nov 18
- ARRL Sweepstakes Contest, SSB: Nov 18 / 20
- Homebrew and Old time Equipment Party: Nov 19

NOV 22-29

- SKCC Sprint: Nov 22
- Phone Fray: Nov 22
- **CQ Worldwide DX Contest, CW: Nov 25 / 26**
-
-
-

Every Month: NZART Official Broadcast: 3900 kHz LSB last Sunday of month at 2000hrs and at 2100hrs. (Also broadcast on the National Link and available on the NZART Website).

Auckland Branch 02, NZART (Inc.)

Minutes of November Committee Meeting

Place / Date / Time: Clubroom, Tuesday, 7th November 2017 at 1940 hours

Attendees: Wes ZL3TE (presiding); Wallace ZL1WAL; George ZL1TUJ; Jeff ZL1TOU; Steve ZL1FS; Japie ZL1JJN; Ray ZL1AJR; Logan ZL1LMN; and Olivier ZL1XS.

Apologies: Soren ZL1SKL, Gwynne ZL1AAR

Sustained ZL1WAL / ZL1AJR

Minutes: of the previous Committee meeting on Tuesday 3rd October 2017

Approved ZL1WAL / ZL1JJN

Correspondence:

Newsletters: Franklin, North Shore (by post); Hibiscus Coast; Western Suburbs; Auckland VHF Group (by e-mail)
Branch reflector of Newsletters from North Canterbury, Hastings / Napier, Rotorua, Hamilton, Manawatu, Gippsland, Westlake (VK2ATZ): Newsletter (24 pages).

NZART redirection of ZL1AA@NZART.ORG.NZ e-mails to Auckland.NZART@gmail.com (at ZL1WAL's QTH)

Auckland Orienteering program for summer events after work mid-week, each in different parks.

Soren ZL1SKL has a licence for DMR and seeks permission to install at Branch clubrooms

Selwyn: Suggestions about constitution wording

Selwyn: Details of Yaesu FT-736R multimode dual band 144M/70 cm xvc

Gwynne: Constructing a cheap (\$45) magnetic loop using gas pipe, motorized trombone capacitor, etc.

Soren volunteering to help at Western Suburbs sale

Western Suburbs booking a table for the sale

Plaque for Russian CW DX contest 2016 won by Andrei ZL1TM operating as ZL1AA. Received with applause.

Received and approved ZL1WAL / ZL3TE

Arising: Wallace will write a letter of appreciation to the Sponsor of the plaque.

Finance:

Finance Report – Nov 2016 – 31st October 2017

We have 31 financial Members which is a mix of NZART Members and Non-transmitting supporters. About 18 financial Members of previous years have not returned.

Jeff ZL1TOU said these accounts are final for the year and show \$278 excess income over expenditure.

They are yet to be reviewed by Mrs Christine Watson before presentation at the AGM in December.

Received ZL1TOU / ZL1WAL

Expenses approved for payment at General Meeting:

NZART Inc. Subscription for 2018 \$89.00 back dated to October 2017 to be included in the final accounts.

Approved ZL1WAL / ZL1TOU

Budget for 2018; Jeff will present a break even budget at the next Committee meeting, intending that it should be recommended to the incoming Committee for 2018.

Proceeds from the sale at Western Suburbs = \$40.50 net (after hire of table) will be in the 2018 accounts.

General Business:

Reports: (This heading includes a repository of all matters that have not progressed since their introduction)

Maintenance outstanding

Power outlets on South and East side of building - wire routed but not terminated

Water pipe to be extended and buried.

Front steps – a set has been donated by Ray; another set is in Steve's lockup

Painting west wall (paint and brushes available)

Down spouting needs to be secured.

Lawns / paddock. Wallace will contact Ross Higgins.

Previous General Meeting; Video (of 500,000 VDC transmission line construction), was popular with Members who had climbed the Klondyke tower.

AREC: Nothing to report.

Exams: None

Visitors: Various people call in on Saturday morning. Perhaps a visitors' book could record their names for follow up by our Contact person (Gwynne ZL1AAR) and the Membership Secretary (Steve ZL1FS).

QSL: Old log books to be entered on LoTW.

Contest: Paul ZL1AJY operated at ZL1AA in the CW straight key 80m contest last Sunday.

Nets: Thursdays 1930 hours VHF. Simplex 145.600 MHz was used also, asking for signal reports.

Newsletter: Wallace will draft the "Notice of AGM" and provide wording for the Constitution change.

Photos of gear for sale, eg: Tektronix Oscilloscope value \$700 before putting on TradeMe.

Membership: NZART advised us just before the NZART AGM, that 68 Members are attached to our Branch. Of these, 37 we write to each to invite them to consider any remits - being the only way their votes may be counted. They are not obliged to join our branch.

Phone line: Soren ZL1SKL has consented to our continued use of his 2° pay as go (1 Gb / month).

Meter reading: 50518.4

(Nov. Committee Meeting Minutes Continued on page 5)

Remotely controlled station

Wes has donated a PC to be the new server. It has Win 7, Team Viewer 13 and a true serial port.

Accepted with acclamation ZL1AJR / ZL1TUJ

Logan is transferring files from the laptop to it (one by one). A better mouse is needed.

The Policy document has been simplified by removing Operating instructions.

No default settings are possible. Nor will reference to such be included in the policy. Users are expected to operate it from first principles just as they would any other rig. This includes tuning for minimum SWR.

The Policy document will be put to the Committee again next month for ratification.

NZ Communications Regulations 2001 allow only NZ issued GURL to transmit.

However **CEPT T/R 61-01** allows overseas Amateur licensee's to transmit while in NZ for 3 months.

From informal discussion with RSM, an inference was drawn that Amateurs are considered to be responsible people. Nevertheless our Trustees (George and Wes) take a risk by allowing overseas Amateurs to transmit from our remote station, in case they (overseas Amateurs) engage in communications not becoming of Amateur radio. George suggested a pragmatic solution; that is, to insure against such a possibility and any possible a fine, George will obtain a quotation.

Constitution: Additional clause of the Membership section 3.

The text was shortened and expressly mentions the receive function of using the Remote station.

It requires a 3/5th majority and is worded as follows:

Addition to Section 3 as approved:

All persons who reside overseas and who do not hold a New Zealand issued General Users Radio Licence and who wish to listen to and operate the receiver functions of the Remotely Controlled Station that is located at the Clubrooms in Auckland, may be admitted to membership by the Branch Committee.

Recommended ZL1WAL / ZL1TUJ.

If not passed, the existing first clause of Membership would suffice. It states:

- a) All persons having a bona fide interest in amateur radio and electronics who are admitted to membership by the Branch Committee.

DMR licence:

Soren has obtained a licence. See www.dmr-marc.net/FAQ

To enable user-friendly access to the NE corner of the clubroom for the installation, Wallace suggested that the general purpose PC be moved to the Secretaries desk. This desk, originally donated by Selwyn ZL1BRC, will provide storage for various folders that Selwyn has compiled.

Agreed to install in the club room ZL1WAL /ZL1TUJ

Antennas:

DMR station:

It needs 2m, 70m and 6m antennas.

There are various rotators in the clubroom. 6m poles are in the yard.

LMR400 coax may be needed.

Simon and Soren have agreed to design and recommend locations for these antennas.

Tri-band tower base needs re-affixing subject to better weather and dry ground for Steve and Japie.

Trench for coax and control cable needs to be dug along the pink line sprayed on the grass.

Tower at Murrays Bay is ready to be taken down then transported later.

Planning for JWFD. Wes can provide a power supply and filters in case the K3 is required to be used.

Future Events:

Saturday 18th November: Tuning circuit contest using a FET dip meter will be convened by Steve ZL1FS

AGM Tuesday 12th December at 1930 hours;

Japie will send his AREC report to Wes; Jeff will provide Finance report on the eve of the AGM

ARDF Inter-branch Competition to be scheduled (convened next to an Auckland Orienteering event).

Suggestions for entertainers / speakers for general meetings 2018

Digital modes demo

SOTA expedition - Soren ZL1SKL to plan and advertise. Wallace has access codes to the summit of Mt Eden / Maungawhau to transport gear.

Intruder watch monitor - John Martin ZL1GWE - to be confirmed?

Musick Point Radio Society Branch - ARDF talk by ZL1WAL and event – not yet scheduled. An orienteering map needs to be drawn. Steve suggested attending a Wednesday lunchtime meeting when help to do field work may be forthcoming by their Members.

Missing items:

ARRL handbook; Power supply (ex ZL1CY); K3 power supply (belonging to George), Insulation tester

The meeting closed at 2130 hours with supper contributed by Ray ZL1AJR.

Notice of Annual General Meeting

at Clubroom, 400 St Johns Road, Meadowbank
on Tuesday 12th December 2017 at 1930 hours

Agenda:

Minutes of AGM 2016

Receive reports:

President;
Treasurer;
AREC

Elections:

President;
Vice President;
Secretary;
Treasurer;
Committee (maximum of 6);
Reviewer

Appointments:

Trustee of ZL1AA; AREC Section leader; AREC Deputy; Contact person(s);
Membership; Technical Advisor; Newsletter Editor; Net Master; web Master; QSL; Antennas; Remote Station Manager; Librarian; Inventory – valuer;
Historian; Maintenance; Gardner; Tutor; ARDF

Subscriptions

Donations

Amendment to the Constitution (requires 3/5th majority)

Addition to Section 3:

All persons who reside overseas and who do not hold a New Zealand issued General Users Radio Licence and who wish to listen to and operate the receiver functions of the Remotely Controlled Station that is located at the Clubrooms in Auckland, may be admitted to membership by the Branch Committee.

Other Business:

Auckland Branch 02, NZART (Inc.) Minutes of October General Meeting

Date / Time / Place: Saturday 20th October 2017 at 1400 hours / Clubroom

Attendees: Jeff ZL1TOU (presiding), Wallace ZL1WAL, Ray ZL1AJR, Japie ZL1JJN, Olivier ZL1XS, Selwyn ZL1BRC, Bob ZL1AFU, David ZL1TND, Simon ZL1SWW and Harry Pompe ZL1BK as per the Attendance Book.

Apologies: Wes ZL3TE, Steve ZL1FS, Gwynne ZL1AAR, Soren ZL1SKL, George ZL1TUJ pro forma
Sustained ZL1WAL / ZL1AJR

Minutes:

Wallace apologized for not circulating the Minutes of the previous General Meeting in September.

Arising: Distributing the newsletter was frustrated by the dictates by Vodafone for him to set up a new SMTP email address Auckland.NZART@gmail.com. Google's response was "Message Blocked" for everybody (nearly 100) in the Bcc field. Finally, he had to get Vodafone to reinstate the original SMTP address (until 30th November). Members should continue to send e-mail to ZL1AA@NZART.ORG.NZ

Reports from the Committee:

Gear for sale:

Wallace read out a letter to Mrs Diane Chandler, daughter of ZL1AOC whose gear we have been selling. It contains a final cheque of \$200 to add to the original payment of \$500 on account.

More gear has been donated to the branch, and some of it has been sold already. A modern portable Tektronics oscilloscope (\$700 reserve is suggested) is of interest to several members. but before putting it on TradeMe, it should be photographed and advertised in our newsletter.

Resolved that the Branch shall keep the Yaesu FT736R VHF/ UHF all mode transceiver
useful for satellite communications.

Approved ZL1WB / ZL1JJN

Simplex VHF: Other Branches are using their allocated AREC frequencies for general use. Ours is 144.600 MHz in FM mode. The national system's are 144.300 for FM and 144.200 for SSB.

Remote Station:

Instructions to restart / reboot the station have been placed beside the K3.

The last person to lock up the clubroom on Saturdays should check that the Antenna patch panel at the HF1 position has the 80m and 40m antennas connected through to the remote station.

Selwyn has written Guidelines to set up and operate the Remote Station.

Japie suggested that Members be coached, via VHF backbone, about how to operate and get good /better experience while using the Remote Station - especially for our Nets on Thursday.

The draft of the Policy has been simplified but is being deferred by the Committee pending the addition of a new class of Membership "Overseas listeners" to join our Branch. (See next item).

Constitution:

A motion will be put to the AGM to add a new class of Member – "Overseas listeners".

Such Members are deemed to be another source of revenue and will be given the privilege to tune our Remote Station. However NZ Communication Regulations 2001 deny them to transmit unless they hold a NZ issued GURL.

Such an amendment to the Constitution has to be approved by NZART whose policy is to expect Branches to police its transmitting members who should be subscribers to NZART.

Thanks were given to Selwyn for his suggestions about the drafting of this amendment.

The AGM is on Tuesday 12th December, before which 14 days notice must be given, together with the text of this amendment, and will be published and explained in the November newsletter.

Antennas:

Nally tower: A trench for the conduit needs to be dug to put in the control cable and coax cable.

Triband tower: Japie and Steve are waiting for the ground to dry out before reaffixing the base.

JWFD: Selwyn reminded the meeting of his earlier suggestion to plan early for its antennas.

JOTA: Our Members are asked to QSO with them this weekend. Prepare suitable questions for them.

10-10:

Bob ZL1AFU who hosts the Down Under chapter of 10-10 on 21.350 Mhz at 1030 hours on Saturdays, told about the demise of some chapters for want of Members, and that it was hard to get 10 entries in the log before being eligible to obtain a 10-10 number.

A repeat or update of his previously made presentation would be of interest.

The meeting concluded at 1430 hours

Video: "Erecting the 500,000 VDC link up the length of the South Island" was shown before the meeting.

The antics of the riggers were marveled at, in those days before Health and Safety Regulations were introduced. Rarely was a hard hat or hi-vis jacket seen. Thanks to Wes for setting this up.

Auckland Branch 02, NZART (Inc.)

Minutes of the 2016 Annual General Meeting

Date / Time / Place: Tuesday 13th December 2016 starting at 2040 hours

Location: Clubrooms, 400 St Johns Road, Meadowbank

Present: Wes ZL3TE presiding, Wallace ZL1WAL, Gwynne ZL1AAR, Logan ZL1LMN, Ray ZL1AJR, Japie ZL1JJN, Jeff ZL1TOU, Steve ZL1FS, Selwyn ZL1BRC, Bob ZL1AFU, Robert ZL2RED, Ian ZL2ATD, Olivier ZL1AAW, Jim ZL1TGS, Mrs Nicoll and guest speakers: Sharon Dawson ZL1TJU and Theo ZL3APT.
As recorded in the Attendance Book.

Apologies: Lyndon ZL3DWF, George ZL1TUJ, Soren ZL1SKL, Martyn ZL3CK. Sustained ZL1WAL / ZL1AJY

Minutes of Previous Annual General Meeting on Tuesday, 8th December 2015 at 1935 hours.

Arising: Incorrect day of last year's AGM (Tuesday not Thursday);
Bob ZL1AFU was shown twice as attending.

Accepted ZL1WAL / ZL1JJN

Reports:

Presidents Report: Wes read out his report. Highlights included:

Thanks to Committee for support and to other volunteers;
Remote Station is working again after ISP problem in 2015
Policy about use of the Remote Station is nearly ready for ratification
Winner of Montgomery Cup on JWFD;
3rd in Memorial Contest as mixed phone and CW;
ZL1AA has been on the air and was awarded DXCC Phone and DXCC 20m
LoTW has been uploaded
Sales of pre-loved gear netted nearly \$600
Clean up of clubroom;
Wattle trees removed (that were touching the 80m dipole).

Received ZL1WAL / ZL1AAR

Finance Report: The reviewed Income and Expenditure Statement, Balance Sheet and the Treasurer's Report having been circulated, were taken as read. The Treasurer made remarks about unpaid subscriptions. Questions were answered to the effect that 18 unpaid subs (worth \$800) were a worry especially now that we are faced with the new expense of Occupancy (\$600). The accounts broke even by not insuring the clubroom (\$780) - illegal until ownership of the clubroom is resolved with Auckland Council.

Received ZL1WAL / ZL1JJN

Thanks go to Mrs Christine Watson for reviewing the accounts.

ZL1WAL / ZL1AJY

AREC Report: Japie reported as follows:

The Whangarei car rally was supported
The Coromandel car rally was supported
The Hunua SCRAM bike race was supported
Jackets have been received
IDs for 5 people have been applied for.
AREC meetings (2) have been attended.

Received ZL1JJN / ZL1FS

Nominations:

President: Wes Printz ZL3TE

Elected unopposed ZL1FS / ZL1JJN

Vice President: George Marr ZL1TUJ

Elected 6/3/3 ZL2RED / ZL1WAL

Secretary: Wallace Bottomley ZL1WAL

Elected unopposed ZL1AJR / ZL2RED

Treasurer: Jeff Lowe ZL1TOU

Elected unopposed ZL1WAL / ZL1FS

Committee: Ray Chapman ZL1AJR
Gwynne Rowe ZL1AAR
Japie Nel ZL1JJN
Steve Miller ZL1FS
Logan Nicoll ZL1LMN

Elected unopposed ZL1WAL / ZL3TE

Reviewer of Accounts: Mrs Christine Watson

Elected unopposed ZL1WAL / ZL1FS

Trustee of Call-sign: Wes ZL3TE

Elected unopposed ZL1WAL / ZL1FS

(2016 AGM Minutes Continued on page 9)

Minutes of Annual General Club Meeting 2016 (Continued)

Appointments:

AREC Section leader Japie ZL1JJN
Deputy AREC S/L Soren ZL1SKL (subject to his agreement)
Membership Secretary Steve ZL1FS New appointment to liaise with our rarely seen Members
Contact person Gwynne ZL1AAR
Technical advisor Simon ZL1SWW
Newsletter Editor Wes ZL3TE
Web Master Andrei ZL1TM
Remote Station Mgr Logan ZL1LMN
Inventory Valuer Steve ZL1FS
Librarian Gwynne ZL1AAR
QSL respondent Soren ZL1SKL
SOTA leader Soren ZL1SKL
Net Master Ray ZL1AJR
Maintenance No single appointment.
Antennas No single appointment.
ARDF Convenor Wallace ZL1WAL
Contests Wes ZL3TE

Subscriptions:

That Membership subscription remain at \$45.00 p.a. discounted by being given a raffle ticket (worth \$5.00) if paid before General Meeting on 8th March 2017 when the Raffle will be drawn. Students \$20 p.a.

Approved ZL1WAL / ZL1JJN

Raffle: ARRL Antenna Handbook 2016

Tickets (\$5) were sold at the door upon arrival and raised \$125.00.
Guest speaker Sharon Dawson was asked to draw from the hat.
Wes announced the winning ticket 67A.
The prize was presented to Ray Chapman ZL1AJR with acclamation.

Other Business

George ZL1TUJ is recuperating and will be mobile in a month or two.
QSL forwarding is available only to financial Members of the Branch.
We get sent so many QSL cards for people that we do not know. Wes will liaise with ZL1 buro.
The incoming Committee is asked to rotate the role of Net Master and reconsider day / time of net.
The quad antenna and rotor is ready to install.
Extensive Maintenance is requiring working bees to be held this summer:
 Replace front steps,
 Painting west facing walls,
 Complete the Nally tower and quad antenna project.
 Clear up grounds beside the implement shed.

The Clubroom will not be attended on 24th and 31st December and 7th January 2017.

The meeting concluded at 2200 hours.

At 1940 hours and before this meeting started, guest speakers Sharon Dawson ZL1TJU and Theo ZL3APT from ICOM, gave a Powerpoint display to explain the differences by answering the question:

“Is that new rig real or counterfeit?”

Members found the subject alarming and thanked the speakers with acclamation.

Supper was served after the meeting, thanks to Carolyn Nicholl and Committee.

President Date

