



Auckland Branch
N Z Association of Radio Transmitters Inc.

NEWSLETTER

June 2013



GENERAL MEETING

Saturday 15th June 2013 at 1330 hours

Report by Gwynne ZL1AAR about NZART AGM and Conference



Proposed site for this tower



Tilt-over tower

DIRECTORY:

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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 your President, George ZL1TUJ

Auckland Council



Unitary Plan:

We are grateful for private donations that have been made towards the fighting fund to oppose inappropriate antenna restrictions. If others wish to similarly pledge their support, anonymity can be assured if you deposit directly into our ASB bank account **12-3047-0076823-00**.

NZART Conference:

Thanks to Steve for presiding at the last General Meeting that considered the remit for the NZART AGM. Gwynne was appointed as our Delegate. Come to the next General Meeting on 16th June to hear hi report about the conference. Most Members will know by now that the remit to change the method of voting was lost.

Purchase of Kenwood TS480HX.

At the last General Meeting, Members resolved to purchase this radio. This is the 200 watt model, that is well reviewed for DX operation. We have taken delivery of it and hope to have it operating very soon.



McNally tower.

At about the same time, Steve, Wallace and I went to Dairy Flat where John Nixon ZL1FD - SK had installed this McNally fold-over tower that reaches 20 m when cranked up. Last week-end, Steve led a crew of Members there to disassemble and transport it to out clubroom. We are grateful to the Trustees of John Nixon's Trust who accepted our tender. John was desirous that it should be put to use for the greatest number of Amateurs. To fulfill this criteria, we were able to demonstrate our experience with running a remotely controlled station using my Elecraft K3.

The Committee is presently planning to install it on the site of the previous Civil Defence building that was torched and demolished in 1981. This is next to the implement shed where a conduit has already been laid for a coax cable. The tower presently supports a five band Hex beam, suitable for 10m, 12m, 15m, 17m and 20m operation. Perhaps the late Donald Webster ZL1CY - SK would be proud to see this progress, As AREC Section Leader for many years he advocated that we should have the best possible communications facilities in case of disaster in Auckland.



Wallace, Get well soon.

The adjacent picture is the scene of his collision while bicycling downhill in the rain with ineffective brakes and colliding with a motorist at this Y intersection. Wallace said that his options were either to maintain his course on Dingle Road and risk a head on collision, or turn left into The Parade and risk brushing with death if the car keep coming. No one was more surprised than the passenger whose side window was shattered as Wallace's head went through it. "I did not see you," the driver said, He managed to walk the remaining 50 metres home where an ambulance took him to hospital for numerous tests. He was kept in for a week. I am told that his internal injuries and his broken rib will heal in six weeks. Meanwhile I am tip-toeing about in a haze of opiates, he says.

Coincidentally his wife Caryl was admitted to the same surgical ward (with some other ailment) at the same time, much to the amusement of the nursing staff because such a coincidence has happened before, I am told.

New Member: We welcome Paul Burgess as an associate member who is interested in buying and supplying radio valves.



UPCOMING INTERNATIONAL HF CONTESTS

| | Dates | Times (UTC) | Rules may be seen at |
|------------------------------------|-------------|--------------------------------|---|
| IARU CW /SSB HF World Championship | July 13/14, | 1200 | http://www.arrl.org/iaru-hf-championship www.rsgbcc.org/hf/rules/2013/iota.shtml www.darc.de/referate/dx/contest/waedc/en/rules/ |
| RSGB IOTA CW / SSB | July 27/28 | 1200 | |
| WAE (Worked all Europe) CW | Aug 10/11 | 0000 | |
| SARTG (Scandinavian) RTTY | Aug 17/18 | 0000-0800 Sat 1600-2400 Sat | www.sartg.com/contest/wwrules.htm |

| June | | Announced DX Operations | | | | |
|------------|------------|-------------------------|---------------------------------------|-----------------|-------------------------------------|---|
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| 2013 Jun11 | 2013 Jun28 | St Martin | FS | LotW | DXW.Net 20130507 | By K9EL as FS/K9EL; 80-6m |
| 2013 Jun14 | 2013 Jun28 | Br Virgin Is | VP2V | W9DR | W9DR 20130212 | By W9DR as VP2V/W9DR fm Anegada I (FK78tr); 6m; SSB; CW beacon on 50115.6 kHz |
| 2013 Jun16 | 2013 Jun30 | Svalbard | JW9JKA | LA9JKA | LA9JKA 20130518 | By LA9JKA; operation to continue until Dec 15, 2013 |
| 2013 Jun20 | 2013 Jul01 | Belize | V3IIV NEW | W6JKV | VA3RJ 20130523 | By W6JKV fm San Pedro (Grid EK67); 80-6m |
| 2013 Jun22 | 2013 Jun29 | Guan-tanamo Bay | KG4 | Home Call | K4RX 20130424 | By K4RX as KG4RX, AC4TO as KG4TO, N4SIA as KG4AS fm FK29kv; HF; CW; KG4RX + KG4TO QSOs will go to Clublog |
| 2013 Jun28 | 2013 Jul07 | Curacao | PJ2 | LotW | ON6DX 20130418 | By ON6DX as PJ2/ON6DX; focus on 6m + 15 12 10m for JA and Asia; QSL also OK via ON6DX, Buro or direct |
| 2013 Jun30 | 2013 Jul05 | Luxem-bourg | LX | ON6ZV | ON6OM 20130228 | By ON6ZV ON6OM ON7EG ON4MW as LX/OO6P; HF; SSB RTTY PSK31 PSK63 |
| July | | | | | | |
| 2013 Jul01 | 2013 Jul06 | Market Reef | OJ0V | ON8VP | OPDX 20121211 | By ON5JT ON6QO ON4CCP ON4LEM ON8VP fm EU-053 (ARLHS MAR-001, WLOTA 0542); HF; CW SSB |
| 2013 Jul01 | 2013 Jul07 | Solomon Is | H44IOTA NEW | NR6M | VA3RJ 20130530 | By H44RK H44MK SQ9KWW fm Nendo I (OC-100); 80-10m; SSB CW; exact dates may vary |
| 2013 Jul01 | 2013 Jul16 | Senegal | 6V7S | RK4FF Direct | DXW.Net 20130124 | By RK4FF; HF |
| 2013 Jul02 | 2013 Jul07 | Ghana | 9G5AA NEW | PB2T | VA3RJ 20130530 | By PB2T; HF; all modes; as time permits |
| 2013 Jul05 | 2013 Jul09 | Sint Maarten | PJ7 | | DXW.Net 20130521 | By AF6KJ as PJ7/AF6KJ and AF6WU as PJ7/AF6WU; HF; multi mode |
| 2013 Jul06 | 2013 Jul16 | St Pierre & Miquelon | FP | LotW | KV1J 20130221 | By KV1J as FP/KV1J fm NA-032; 160-6m; SSB CW RTTY PSK31; QRV for IARU HF Contest; QSL also OK via KV1J direct |
| 2013 Jul06 | 2013 Jul25 | Haiti | HH5 | KC0W Direct | KC0W 20130511 | By KC0W as HH5/KC0W; 160-6m; CW; verticals over salt water |
| 2013 Jul07 | 2013 Jul13 | Marquesas | FO | UT6UD | DXW.Net 20130518 | By UT6UD as FO/UT6UD fm Hiva Oa I (OC-027); 30-10m; CW SSB RTTY; verticals |
| 2013 Jul09 | 2013 Jul12 | Solomon Is | H44IOTA NEW | NR6M | VA3RJ 20130530 | By H44RK H44MK SQ9KWW fm Vanikolo/ Utupua I (OC-163); 80-10m; SSB CW; exact dates may vary |
| 2013 Jul09 | 2013 Aug10 | St Kitts & Nevis | V47JA | LotW | W5JON 20130328 | By W5JON; 160-6m, incl 60m; SSB + digital; dipoles, vertical, 6m yagi; QRV for RSGB IOTA Contest |



THE FOX HUNTING PAGE

By Wallace ZL1WAL



British ARDF Championships 2013 17th -19th May 2013 ... The RSGB hosted three days of open **ARDF competition** in 2013. The events were held in Surrey, close to London Heathrow and London Gatwick Airports. There were Sprint, 2m and 80m Classic ARDF Courses. Below are random photographs taken there:

Weather

(Information For Overseas Competitors)

"Hasta el cuarenta de mayo no te quites el sayo"



Surrey is a hilly county - the competition area is at 250m above sea level. However, ...



The weather in May can vary between 25 degrees, dead calm and sun (hooray) and 6 degrees, rain, sleet, hail and gale force winds (boo).

Please come prepared.



Nettles !

Notice that nobody has bare legs in these snaps



Auckland Branch, NZART (Inc.)

Minutes of General Club Meeting

On: Saturday, 18th May 2013 at 1330 hours
At: Clubrooms

Present: Steve ZL1FS, (presiding), Wallace ZL1WAL, Ray ZL1AJR, Gwynne ZL1AAR; Selwyn ZL1BRC, Simon ZL1SSW, George ZL1TUJ, and Franc ZL1SLO, a welcome visitor, as recorded in the Attendance Book.

Silent Key: Members stood in silence for one minute for John Nixon ZL1FR – SK, a recent Branch Member. A tot of single malt whiskey was partaken in memory of him. Wallace and Gwynne gave tributes to John and related their encounters with him in the context of his remotely operated station at Dairy Flat. Auckland Branch had been invited there at the time that we were undertaking a similar project.

Minutes of the previous Special General Meeting on 24th April 2013 at Clubroom.

Having been circulated in the May newsletter, was taken as read and approved:

ZL1WAL / ZL1AJR

Correspondence received since the last Committee Meeting:

NZART- HQ Info line requesting Secretaries to copy the PIB 46 for the Examination Supervisors in their branch.

Report from Local Government Liaison Officer. This report was read out. It described his representation about Antenna heights at Wellington, Tauranga, Marlborough, Wanganui and Waipa. It urged active opposition to inappropriate rules by Local Authorities.

Memorandum documenting Wallace's conversation with Patricia Dallas ZL2RK about the late John Nixon's remotely operated radio station that is for sale.

- John died of Cancer in the brain while being treated at Cleveland Cancer Centre
- She belongs to Branch 80 and is acting as technical spokesperson for his Solicitors.
- The Kenwood TS480HX is 200 watts. Its price is \$1,250.
- Sale of the Dairy Flat property is not yet complete – but the McNally tower must go.
- Hibiscus Coast Radio Society do not want it. They see transport as a problem.
- Any expression of interest by Auckland Branch needs to be tendered to the Solicitors.

Received ZL1WAL / ZL1AJR

Finance:

The Treasurer circulated the Financial Report made to the Committee on 7th May 2013. Individual Member pledges to the Fighting fund re the Unitary Plan now stand at \$605.

NZART AGM and Conference

Gwynne will be attending NZART AGM at Masterton and will be our Delegate with discretion to vote according to this meeting's resolution.

Remit: The remit published in Break-In is about voting at the AGM. A summary of it was read out.

This Branch does not support the remit. ZL1AAR / ZL1FS

Purchase of Kenwood TS480HX This 200 watt transceiver covers 6M and is ideal for remote operation:

That we buy this transceiver and sell our Kenwood TS450, ZL1AJR / ZL1WAL.

The votes were 3 for / 3 against/ 1 abstention.

The Chairman's casting vote was in favour so the motion was carried.

That we submit a tender for \$1,300. ZL1AAR / ZL1WAL

McNally tower This is a fold-over and telescopic lattice tower extending 20m. It is about four years old.

That Wallace arrange for a site inspection to assess feasibility about its removal.

ZL1AAR / ZL1FS

Computers: Selwyn stated that software had been loaded to assist students wanting to study.

Meeting closed at 1440 hours

Steve ZL1FS gave a talk about "Electrics" aboard a container ship to refrigerate its reefers using 650 Kva generators. He also gave an illustrated description of the ship's massive 9 cylinder 2 stroke diesel engine that produced 14.365 Mw at to propel the ship at 15 knots.

Finished at 1610 hours.

Auckland Branch 02, NZART (Inc)

Minutes of Committee Meeting

Time / Date / Place: 1930 hours / Tuesday 4th June 2013 / Clubroom

Attendees: George ZL1TUJ presiding, Steve ZL1FS, Gwynne ZL1AAR, Japie ZL1JJN, Rob ZL2RED, Ray ZL1AJR

Apologies: Wallace ZL1WAL, Wes ZL3TE

Sustained ZL1TUJ / ZL1AJR

Minutes of the previous Committee meeting on Tuesday 7th May 2013

Taken as read and approved ZL1TUJ / ZL1AJR

Correspondence In:

Newsletters: North Shore, Franklin by post; Hibiscus Coast, VHF Group, Musick Point by e-mail.
NZART Two vacancies on Council after resignation of Fred Johnson ZL2AMJ and Ted Linney ZL2TB
Warrick Ayres – acceptance of tender for John Nixon's ZL1FR Remote Station
Patricia Dallas – re his PC and breaking the password,

Received ZL1TUJ / ZL1AJR

Correspondence Out:

Letter to Warrick Ayres, John Nixon's solicitor, tendering for his Remote Station
E-mails to Patricia Dallas, spokesperson for John Nixon's rig

Approved ZL1TUJ / ZL1AJR

Finance:

The Treasurer's report was presented

Received ZL1TUJ / ZL1AAR

Expenses requiring approval to pay:

| | | |
|----------------|--------------|---------------------------------|
| Broadband | Orcon | \$75.00 Direct Debit each month |
| Hire of Lifter | Steve Fitt | Authority to pay up to \$300.00 |
| Hire of Truck | Steve Miller | Authority to pay up to \$300.00 |

Approved ZL1AAR / ZL1TUJ

Fund raising:

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

Japie gave his opinion that we are unlikely to receive this.

Lotteries application – Closing date for Regional applications is 1st July. We must be careful.

Sale of equipment on TradeMe. The Icom 720 has been sold. Half proceeds are owed to Bill Still.

Sale of Kenwood TS450D. Although resolved at the last General Meeting to sell this to raise funds to pay for the TS480HX, this decision could be revisited if other equipment sales provide sufficient funds.

General business:

Reports:

AREC; Japie reported that the Rally at Whangarei went well. Also, the quarterly net meeting went well.

Japie has been nominated for the Memorandum of Understanding (MOU) Group.

There will be a brief report made at the NZART Conference. He said that progress is being made on a national front towards all of the emergency services working better together.

Batteries: OK

Maintenance; Sink out-flow. We still need to find the pipe to make it flow properly.

Toilet block (Scarbro's). No progress. Meanwhile Tardis does not smell during this cooler weather: and the chemicals are effective.

Remotely operated K3 station. No progress. George intends to employ someone to get it going.

New Member: Paul Burgess as an Associate Member. He is not a Ham, but he has an interest in trading old radio valves.

Future events:

General Meeting 15th June – Report of NZART AGM and Conference.

St Heliers / Glendowie Scouts/ Guides winter instruction 1800-2000 hours. Date to be set.

Committee Member vacancy: The Committee is asked to consider who should be approached.

QSL Card design: Nothing to report yet.

John Nixon's Remotely operated station:

Our tender was accepted. The **Kenwood TS400HX** transceiver and sundries were picked up.

The McNally **tower** will be dismantled by a crew led by Steve on Saturday 8th June.

Obituary: Wallace will write this by 10th July in time for the August / September issue of Break-In,

Meeting closed at 2110 hours.

Continuation of discussion about experiments with vertical antennas

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

(4th installment)

HALF SQUARE

(The example shown in the picture is an "inverted" Half Square)

This is one of the best antenna I have tried. Compared to the 4BTV, signals were either equal to or had an advantage of 1-3 S-units. The inverted version does not seem to work as well as the standard version. However, this conclusion is questionable since tests made were not extensive enough.

It is obvious that in the case of the inverted version, the horizontal wire is closer to the ground which implies more ground losses.

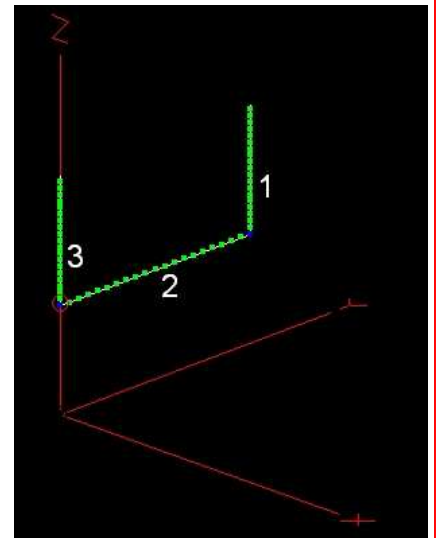
In any case, there was a significant effect of the feed line on the SWR which indicates a strong issue with RF feedback. A BULUN is clearly a MUST.

One advantage of the Half Square is that it can easily be made multiband by adding relays on the vertical sections. By choosing a compromise dimension of the horizontal wire (like 29 feet to cover 17-20m), good performance can be obtained. The model I tried was:


- Horizontal wire: 29 feet
- Vertical wires: 19 feet

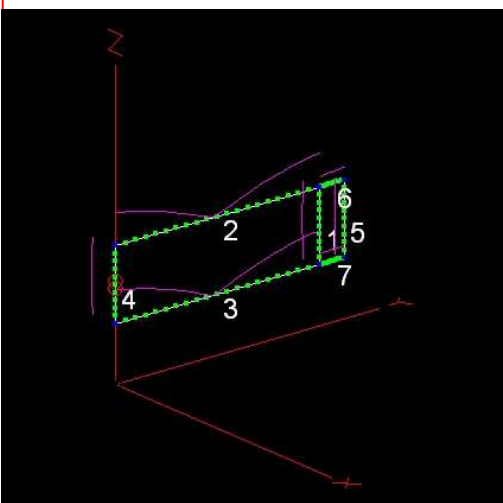
The literature recommends to connect the ground of the coax to the vertical section and the positive to the horizontal wire. Apparently, that should help minimizing the RF feedback issue.

I tried it and but I did not noticed any significant improvement. Reversing the polarity also had the effect to increase the resonant frequency from 14.200 MHZ to 14.600 MHZ.

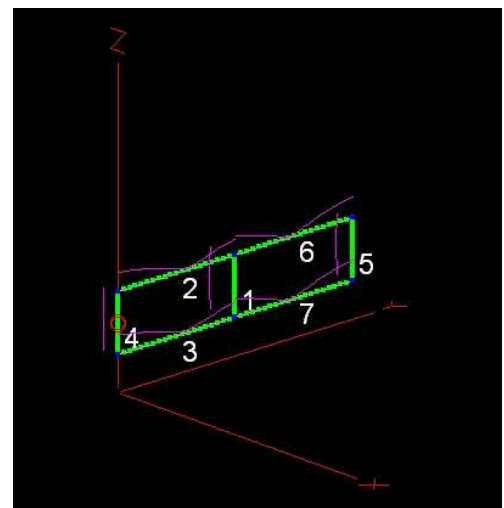


ADR LOOP Asymmetrical Double Rectangle

Note the symbol  for the position of the feed-point



SDR LOOP



BOBTAIL CURTAIN Dimensions for 40m; sides 2 + 4 = 149'; 1 and 5 = 33.5' ; 3 = 44'
Ideal for the few who have a section that is 60 metres deep with a Norfolk Pine front and back and lies east - west.

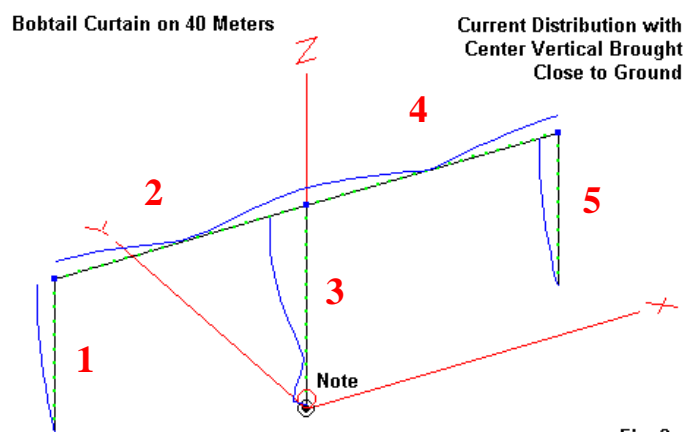


Fig. 2

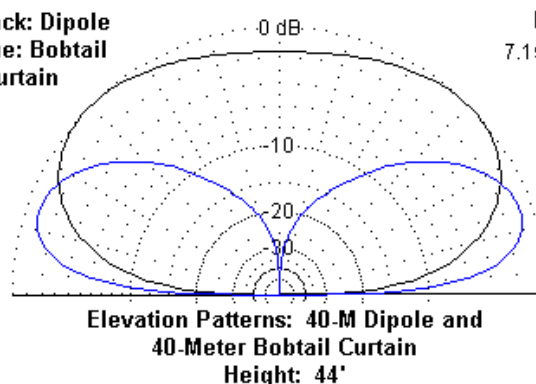
On 40 meters, the Bobtail curtain operates in its design mode--as three 1/4-wavelength verticals spaced about 1/2-wavelength apart. Instead of using individual feedlines properly phased, we use a top wire that provides the correct phasing. Because the currents on the top horizontal wire are equal and of opposite phase at any distance from the center wire, the horizontal radiation is largely self-canceling. The result is a vertically polarized broadside pattern

Admittedly the Dipole shows the greater gain, but the lesser gain of the Bobtail curtain occurs in just those regions that favour DX skip., i.e. below 20 degrees elevation.

In addition the Bobtail has very little high angle sensitivity, thus reducing the QRN and other high-angle interference. For many, the Bobtail is a nearly ideal wire DX antenna, especially that it is cheap, low enough for easy maintenance and durable.

Black: Dipole
Blue: Bobtail
Curtain

Fig. 4
7.15 MHz



The usual method of matching is with a matching tank circuit, that requires good ground radials, but if built for 40 metres, there is no need for these. Think of it as two L-shaped dipoles and the centre vertical T. Tune for a combination of good main feedline match and maximum field strength measure 10 wavelengths away broadside to the antenna.

For all bands above 40 metres, this antenna becomes a centre-fed doublet with drooping ends. More about this, take off angles and radiation patterns in next month's installment

Comparison Between Different Vertical Antennas "in Free Space"

| ANTENNA | FORWARD GAIN | FRONT / SIDE REJECTION | RADIATION RESISTANCE |
|--------------------------|--------------|------------------------|----------------------|
| 1/4 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 |

From NZART Infoline 274: The AGM minutes will be included in the August Break-In, however here is a summary of some of the AGM announcements heard in the recent Official Broadcast:

- Don Wallace, ZL2TLL, our ALO, advised the meeting that he has appointed John Yaldwyn ZL4JY as his deputy. Council was pleased to confirm this appointment.
- The one remit to this year's Council elected Stuart Watchman, ZL2TW as Vice President for the next two years.
- Subscriptions for 2014 – no change. All subscriptions remain as per 2013 with one exception, Overseas subscription rates will all be \$125.00
- Life Membership was awarded to Peter Lake ZL2AZ
- Call book for 2013 will only be produced on CD Rom
- Council will test Skype as a means to hold the monthly Council meeting as the variable propagation on 80m and increasing noise levels is making it difficult to meet on air. Meetings will be recorded and available to download from our web site.
- An initiative by Phil Holliday ZL3PAH on the Future Direction of NZART was presented to the AGM in the form of a strategic plan. More on this to follow in future issues of HQ Info-line.
- If requested, remuneration for Examination Supervisors is the responsibility of the branch to which the examiners represent.
- Don Wallace ZL2TLL has been appointed as IARU R 3 Liaison Officer, with the recent resignation of John Lochhead ZL4QS.
- Mike Newman ZL1BNB is now being assisted in his role of Local Government Liaison Officer, by Douglas Birt ZL1BFS.
- The Council initiated 70cm bandplan review has reached the stage where a draft bandplan has been produced. Doug ZL2TAR from FMTAG has been asked to provide input on the engineering issues.
- A web site re-design is needed and to help with that, Council has identified two requirements: Firstly we need to draw up a specification or a design brief and secondly we need to find someone with good web design skills to take on the task.
- AGM to amend the Constitution regarding the method of voting, was lost, on vote count 1219 against and 411 in favour.
- A special plaque was posthumously awarded to Roy Symon ZL2KH, in recognition of his long service to NZART and unique sense of humour. Frank Hunt ZL2BR received this award and will present to Jill Symon on behalf of NZART.
- ZL1TGC was approached by 4 persons interested in representing the Central Region on Council after resignations were received from ZL2TB and ZL2AMJ. Council will consider who the most suitable candidates are and advise the membership who had been appointed.
- Peter Freeman VK3PF one of the two representatives from WIA gave an inspiring presentation on SOTA, Summits on the Air. This is a UK amateur initiative where points are awarded for contacts made to defined registered summits or prominences. The VK3 area has embraced SOTA resulting in much portable activity occurring, especially on the 40 band.
- Vice President Stuart ZL2TW announced the winner of the stirrer's award which went to Mike Barnes ZL3TMB.