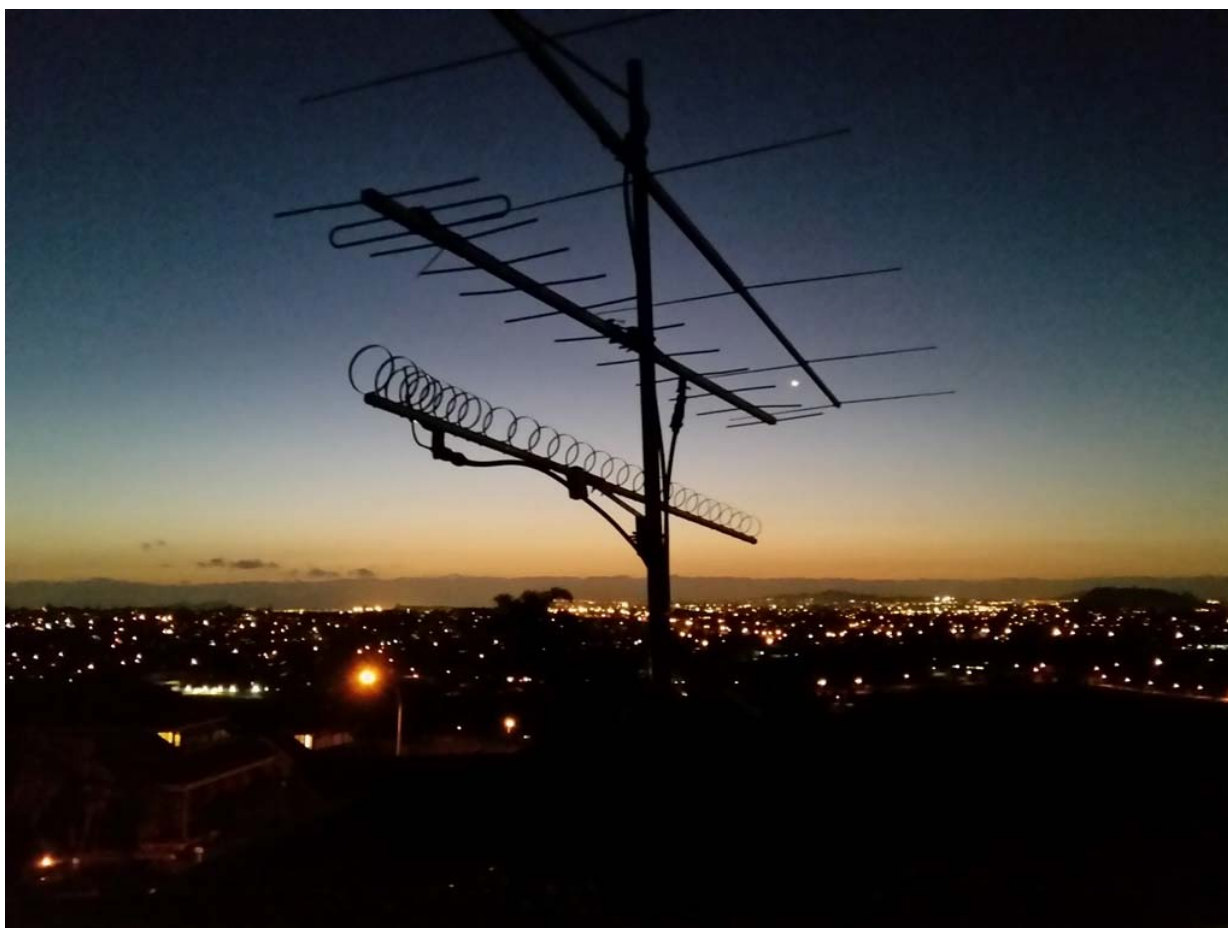
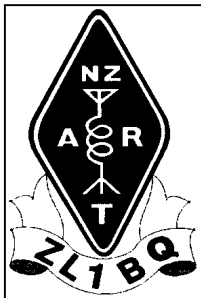


The Official Newsletter of the
Auckland VHF Group Inc.

Spectrum



Harry ZL1BK and Simon ZL1SWW working VK4 over the city lights of Auckland City



Auckland VHF Group Inc.

Branch 66 NZART

PO Box 10138, Dominion Rd, Auckland 1446
Clubrooms: Hazel Ave, Mt Roskil

| Office | Name | Call sign | Home | Work / Mobile | E-mail |
|---|--------------------|-----------|----------------|---------------|---|
| President | Peter Loveridge | ZL1UKG | 377 3398 | | peterlov@ihug.co.nz |
| Vice President | Grant Taylor | ZL1WTT | 021 02 340 270 | | zl1wtt1@yahoo.com.au |
| Secretary | Adam Cumberlege | ZL1CCA | 410 8923 | | adam.cumberlege@xtra.co.nz |
| Treasurer | Doug Cooke | ZL1TTE | 846 6075 | 0274 978 121 | d-jcooke@ihug.co.nz |
| Committee | Vaughan Henderson | ZL1VH | 418 1071 | 021 844 804 | vaughanh@vodafone.co.nz |
| | Merv Thomas | ZL1SK | 828-7174 | 27-499-0262 | m.r.thomas@vodafone.co.nz |
| | John Dunn | ZL1JD | 473 9514 | 021 731 907 | john.dunn@clear.net.nz |
| | George Marr | ZL1TUJ | 524 6075 | | gmarr@ix.net.nz |
| | Ross Hannah | ZL1EME | 817 5767 | | rosshannah@xtra.co.nz |
| AREC Section Leader | Laurie Mathews | ZL1ICU | 634 5130 | 0274 817 463 | perma@xtra.co.nz |
| Deputy Section | George Raffles | ZL1TUX | 626 6944 | 021 735 361 | zl1tux@xtra.co.nz |
| ZL1BQ Trustee | John Dunn | ZL1JD | 473 9514 | 021 731 907 | john.dunn@clear.net.nz |
| Repeater Trustee | John Dunn | ZL1JD | 473 9514 | 021 731 907 | john.dunn@clear.net.nz |
| Klondyke Managers | ZL1VH / ZL1BK | | | | |
| 690 Manager | Dennis Seymour | ZL1UET | 532 8666 | | |
| 850/670 Manager | Vaughan Henderson | ZL1VH | 418 1071 | 021 844 804 | vaughanh@vodafone.co.nz |
| ATV/Beacons | Grant Taylor | ZL1WTT | | 021 234 0270 | zl1wtt1@yahoo.com.au |
| Spectrum Editor | Stephen Hayman | ZL1TPH | | 0274 732663 | zl1tph@xtra.co.nz |
| Trading Table | Vaughan Henderson | ZL1VH | | | tradingtable@aucklandvhfgroup.org.nz |
| Hon Auditor | Raequel Probine | | 630 8044 | | |
| Webmaster | Terry Corin ZL1BPA | | | | zl1bq.webmaster@gmail.com |
| Club Web Page | | | | | http://www.qsl.net/zl1bq |
| ATV Interest Group | | | | | http://www.qsl.net/zl1qf/atvug/ATVusers.html |
| ZL1VHD Dstar gateway administrator; Laurie ZL1ICU | | | 634 5130 | 0274 817463 | perma@xtra.co.nz |
| ZL1VHD Dstar gateway registration URL : | | | | | http://zl1vhd.dstar.org.nz |

Club News and Net:

The combined Auckland VHF Group and Auckland Regional Branch News and Net are held on 146.625 MHz and 439.875 MHz at 8.15 pm each Sunday or after the ZL6A National Broadcast on the last Sunday of the month.

Club meetings are held at the Clubrooms at Hazel Avenue, on the second Monday of each month at 7.30 pm. For other details, listen to the News and Net each Sunday evening.

SPECTRUM is the official journal of the Auckland VHF Group Inc. Opinions expressed are those of the authors and do not necessarily reflect club points of view.

The closing date for SPECTRUM articles is by the 1st of each month. Articles to be submitted to the editor Steve ZL1TPH zl1tph@xtra.co.nz

AUCKLAND VHF GROUP Inc

PRESIDENT'S REPORT FOR AGM NOVEMBER 2015

This is my third Presidents Report. When you enter Parliament following a general election you promise to work for your constituents for a term of three years. You will see me giving another person the chance to have this experience at the next election. My advice to the next president is to practice delegation or you will reach your used up by date early. When you do things to support your club the sense of ownership has its reward in seeing the club flourish.

Major Events

Amateur radio became a Restricted Discretionary activity in the Super City and amateurs had until 28 February 2014 to make a submission (4498) to the "Notified Plan" to achieve Permitted status. Starting from material that had been used at Tauranga and other locations a



small team wrote a comprehensive submission that was posted on the ZL1BQ web site. When the submissions had all been evaluated Amateur Radio was still Restricted Discretionary so writing evidence for the Hearing began and was submitted to the Council on 03 June 2015 along with the legal aspects of our argument written by Julie Goodyer of Ellis Gould. There were pre-Hearings but that only served to notify the Hearing Panel how much speaking time we would need. The Hearings on Topic 42 Infrastructure which includes "Amateur Radio Configurations" began on 25 June. Previous speakers overran leaving Amateur Radio less time than requested. After the legal submission only the highlights of the Amateur evidence could be given. The judge had read the material and asked a few relevant questions for

explanation. The Hearing on Topic 65 Definitions is still to come on Monday 09 November. This is where we hope to remove the exclusion of Amateur Radio Configurations from the definition of "Mast". Masts are permitted for Utility Operators for example.

The "Fighting Fund" proposed by the Vaughan the NZART President has now been approved for payment to support our legal costs. The outcome won't be known until 2016 when the Hearing Panel publishes their findings. The legislation establishing the "super city" specifically excludes appeal to the Environment Court except on matters of law. We hope that we have done enough to become "Permitted".

Changes in the industry are being driven by “re-insurers” wanting to know the extent of their exposure and have now appeared in the Group’s insurance policy wording. The result is that our policy now only insures the Clubrooms. Although the VHF Group own the building the Council tried billing the club for an insurance premium. In order to protest against this the building had to be independently valued. This is fortunate as the VHF Group has been notified that the Lease runs out at 31 January 2016 after 20 years. The club has written to the Council indicating that we will seek a new Lease and the Application Form has been filled out. Another round of quotations has been sought to increase our Public Liability cover to \$2,000,000 which is a condition for having a new Lease. The increase in cost is likely to have an effect on subscriptions.

Feed Through is the proportion of rent received by the VHF Group that must be paid to the owner. It took a while to realise that the argument that 25% as the high end of commercial rates isn’t a limit when the amateur service has so much donated labour. Analysis of the Klondyke Log Book in October 2014 showed people attending and roughly what they did. This allowed for an estimate of the time involved, the number of cars and distance travelled. One can find on the internet historic tables for average wage and the cost of petrol. Using a “skill factor” over the average wage and a “cost factor” in addition to petrol it became possible to estimate the equivalent cost of servicing Klondyke at a commercial rate. With this information one can now mount an argument about the operating costs of Klondyke and what is a fair share to illustrate why we should have 25% as the upper limit of the Feed Through that we are requested to pay.

However after the last correspondence directly with the director of Klondyke Forest Limited nothing has been heard for ages. A quick look at the cadastral data in my updated mapping software shows that Klondyke Forest Limited is owned by Westpac as mortgage holder and a Chinese timber company. This looks like the investment imperialism that was the preserve of the USA but now operated from a socialist regime. Do we notice that the workers are better off?

Meetings

The holiday atmosphere continued in January with a BBQ in Arthur Falkner Reserve. Attendance at meetings has continued to attract an average of 15 to 25 people. This has helped to maintain the level and quality of speakers. The Electronics Institute has continued to support our efforts, and their donation and assistance is greatly appreciated. The continued liaison between the two groups is proving beneficial to both parties. Council policy approves of buildings being shared. Our Lease application looks all the better for having compatible groups using the clubrooms.

February:

Plan A for a talk on the early development of Radar fell through. Plan B for a talk on the Australian amateur scene fell through unavoidable personal events. Plan C produced a DVD of the adventures of Dick Smith in his helicopter.

March:

Representatives from Metrix gave us an insight into what SMART Meters do and how they call

home with your data.

April:

The popular Dr Gary Bold addressed us on a topic of his choice. It was full of useful links where related information can be found. See May Spectrum for the list.

May:

Considering Remits for Conference is traditional here and didn't take much time this year. It was followed by a members "Show & Tell" about their current projects. See June Spectrum for a summary.

June:

There was a report on the recent NZART Conference. This was followed by a presentation on the state of development of a Data Mesh Network by Robert Moody. It was great to see how mass produced commercial equipment could be deployed on an amateur band to provide a high speed resilient network. See July Spectrum for some of the details.

July:

From the historic record a DVD covering the early development of mobile television was shown leading up to the televising of the 1948 Olympics. This was part of the Norman Green Lecture series produced by the BBC.

August and September:

The new electric trains were covered in two parts containing lots of detail. Just the job for a technical audience. See October Spectrum for some of the highlights.

October:

David Probine runs his own business servicing F&P washing machines. Access to lots of recycled parts has led him to experiment with turning the motors into generators for alternative energy. This is quite challenging when using wind turbines as the energy output varies as the cube of the wind speed and efficiency of a wide range of speed needs software to manage it. See November Spectrum for some of the details.

Ubuntu Evenings:

The meetings run by Grant ZL1WTT have continued at the clubrooms about this operating system, showing and demonstrating how to operate the system, and how to make practical use of it once it was in your computer. Informal discussions about the development of the Data Mesh Network go on here as well.

Working Bees:

More antenna maintenance was carried out in Autumn at the clubrooms. There was a rise in donations to the club for possible sale during the year. There will have to be some control over the open door policy as a rise in hiring of "skips" was also noticed with material having to be carted away to make space and tidy up. Looking at the Auckland Council web site shows

that from February 2016 a new program for Inorganic Collections will be in place for the super-city. As the club doesn't have a letter box the web site could let us know when we might benefit from this service.

Repeaters and Beacons

The club needs to consider how the knowledge of sites like Klondyke can be passed along to younger members. We recognise that cell phones and the Internet compete for the short attention span of younger people but they are needed for continuity of the service we provide. Colin ZL1ACM does not travel to Klondyke much any more. Harry ZL1BK and Vaughan ZL1VH are now involved in the service of the facility.

A new repeater controller design has been produced by Richard Gamble to replace the original 1802 based controllers which after 25 years and many dry joints have passed their use-by date. The testing has been ongoing and implementation will now occur in 2016.

Related to this is the development of a high speed Data Mesh using surplus modems operating around 2.4 GHz that run Linux kernels which can have new applications loaded into flash memory. Form 10 applications for the Mesh Backbone on 3.4 GHz have been applied for and are with the ELG. Local outlets will be at 2.4 GHz. The VHF Group has investigated two possible repeater sites in the Hunua area but the landowners have not been excited by our project and they will not proceed.

Klondyke General:

A maintenance program has been devised that will be executed during Autumn 2016. Provision must be made for repainting of the tower by 2018. It was last painted 14 years ago. See March 2015 Spectrum for a report on the condition.

License Sponsorship Scheme:

I am pleased to report that the scheme continues to be well supported by members. It is about to go through another renewal cycle, so please keep an eye out for the information on frequencies available for your support. Many thanks to all the people who have stepped up to sponsor licenses, including the Auckland branches. It was a very pleasing result to which the committee says "thank you for your help" to all who participated in it. We look forward to your continuing interest in the years to come. If anybody wants to renew or participate in the scheme, contact Merv ZL1SK.

Trading Table

The trading table continues to provide the funds for the repair and upgrade of repeater services and other projects that the Group becomes involved in. The component list was given a thorough update as at December 2014. It is available on the web site. Unavailable items were culled along with things we decided that no one would ever want (30 year old computer chips for example).

This year the trading table attended three market days, the Radio Electronics Group, the Hamilton Amateur Radio club and the Western Suburbs sales. The range of goodies taken was reduced to the more popular lines such as connectors and new items that the buyers haven't

seen before, but all sales returned a reasonable amount for the effort put in.

The Group is still active on TradeMe and with better information about what was in “Grab Bags” they became popular. Dealing with the public required more time than expected.

Our thanks go to Vaughan ZL1VH, John ZL1JD, Peter ZL1UKG, David ZL1TND, Doug ZL1TTE for their direct assistance with these events and others who assisted with set-up and the supporters who purchase our stock.

Web site

Terry ZL1BPA has taken over as Web Master. He has tidied up the organisation of the site and made it easier to maintain. It has a more pleasing look when you arrive at the main page and the ancillary pages have a more consistent look. The repetition at the bottom of each page has been removed to let you see all of the page without much scrolling. Please provide feedback to Terry if you see a way to make it more inviting to use.

Spectrum

Spectrum continues to be enjoyed by our members as a source of useful information. It is well laid out and is often read by people outside of our normal membership. Thanks must go to Stephen ZL1TPH in the excellent work he has done to maintain the high standard of appearance that Spectrum has reached. Stephen is stepping down at the end of the year so a new personality will be putting their touch on it next year.

A Thank You

There have been many people involved that are outside of the committee that it is difficult to know where to start. Colin ZL1ACM, Dennis ZL1UET, Ian ZL1VFO, Harry ZL1BK, Vaughan ZL1VH are high on the list of volunteers and helpers who have given voluntarily of their time and effort to help get things done. There are a many others too numerous to list here who also deserve our thanks. Without that assistance the group would not be in the healthy situation it finds itself in today. Thank you all.

To ALL of the committee, many thanks for a job well done. Being able to share the load allows more to be done while enjoying your share of the work. It has not been possible to note everything that everyone has done into this document – all I can say is thanks to all for your efforts.

I move that this report be adopted.

Peter Loveridge ZL1UKG

Auckland VHF group (Inc.) Branch 66

ANNUAL GENERAL MEETING NOTICE

9th November 2015 7.30 pm, Hazel Avenue Club Rooms

(Located on left at the end of Hazel Avenue)

- Agenda**
- (1) Confirmation of the Minutes of the 2014 AGM**
 - (2) Acceptance of Reports**
 - (3) Presentation of Accounts**
 - (4) Setting of the Subscription for the 2016 year**
 - (5) Election of Officers**
 - (6) General Business**
- 6.1** To amend the Constitution clause 12(a) to produce reviewed accounts to the Annual General Meeting where previously duly audited Accounts were required.
- To amend clause 3 (b) to refer to Part 2.1 (c) (ii) of the NZART Constitution where Clause 20(b) was previously referred to.
- To amend clause 16 (a) to refer to Part 9.1 (c, d) of the NZART Constitution where Clause 37 was previously referred to.
- 6.2** Any other business.

At the conclusion of the AGM there will be a short General Meeting

Auckland VHF Group members "Show & Tell"

The projects they have been working on over the winter will see the light of day

Preparing for Field Day

The Field day VHF Contest in December usually results in a number of field and home stations far and wide competing to hear one another. There will be a short discussion to give you an idea about who will be on air and where to point your antennas to take part in the best supported activity of the year.

For "Stop Press" listen to the Sunday night News and Net at 8:15 pm on 6625.

Another meeting not to be missed!

EVERY BODY WELCOME

AK VHF Group General Meeting Minutes: Monday 12 October 2015

Attendance: As per attendance book

Apologies: ZL1JD

General Business

Letter to Ron Johnson indicating that the Auckland VHF Group will renew the Lease. Public liability insurance needs to be increased to \$2M, however, it is hoped the premiums will not increase too appreciably.

General Business

The Committee has received a request for payment against the pledge to support the legal costs incurred in hiring a lawyer to assist with negotiations on the Unitary Plan. A pledge was made for \$1,000 by the Auckland VHF Group.

A discussion followed.

ZLICU was against the expenditure, saying that if we had done nothing, the status quo would have remained and enabled us to continue as we had done in the past.

ZL1VH explained that the matter had to be presented and if no representation was made, then Amateur radio - as we know it - would have had to cease. People would have had to apply on an individual basis to erect aerials, etc.

Right of Appeal was challenged.

The last presentation was made in front of a judge - independent. All we can hope for is a good outcome for amateur radio.

There is a cost involved in employing a lawyer.. to present our case in the best possible light. The case was put to all clubs 3 years ago and most pledged their support.

Motion: That the General Meeting approve payment of \$1000 for this purpose.

Moved ZL1VH_____ Seconded ZL1CCA_____ Carried: 9 vs. 0

The Committee has notified Auckland Council Community Leasing that it wishes to create a new Lease when the current Lease expires on 31 January 2016. A Lease Application form has been received. It requires information about the club and sets some conditions to be met. One is that the club must have \$2,000,000 in Public Liability insurance. The increase in premium for this value is not known yet.

The Committee has received an updated valuation for the reinstatement of the clubrooms in case of fire or other damage. Accordingly an updated quote has been received from State Insurance. The committee recommends the acceptance of the quote and seek authorisation for the payment of \$1580.63 for business assets of the club. It appears that the existing Liability Insurance has not changed. This means that an additional approximately \$250 for \$1,000,000 liability must be added for that insurance.

Motion: That the General Meeting approve payment of up to \$2,000 to cover the insurance premium for the next year.

Moved ZL1SK_ Seconded ZL1VH__ Carried:12 vs. 0
ZL1MYL abstained

Asked: Who else provides funds - LPFM = 10 x \$30 = \$300 per year.
Ubuntu Group = \$ nil

The committee has received a suggestion that the Auckland VHF Group create a Facebook Page to foster more immediate way of communication with members.

What does the general meeting think of the gains or losses in undertaking this step?

Discussion followed:

(There is a Yahoo Group that sends emails to subscribers)

(Needs a moderator)

(Competitor to Amateur radio)

(Negative feedback to committee)

The president has been unable to make contact with the Ponga Road landowner after 4 phone calls. Rewriting of the Licence to Occupy has not begun.

Next general meeting will discuss Remits to the NZART AGM. In order to advertise any changes required to club rules they should be stated now so that they can be circulated to members before the AGM.

Who will be attending the Western Suburbs Market Day? Who will be available to assist the VHF Group to operate a table at the Market? Sufficient volunteers indicated that the VHF Group will reserve a table at the Market.

Market Day: Rosebank Road, Avondale. 9-12 Saturday 7th November. VHF Group will take a table.

Any other General Business?

Tonight's Topic:

David Probine told us about using components from the current series of F&P washing machines for alternative electric power generation.

David has a relative on a farm near Opotiki who has been experimenting with alternative energy sources. Solar power is becoming more common but it has a lower range of output voltages than wind power. Invertors for solar installations are not so efficient when faced with the range of 22 – 60 volts available from wind alternators. The abbreviation MPPT (Maximum Power Point Tracking) for wind power invertors allows it to absorb more current as the voltage rises with wind speed experienced by the turbine.

Over the years F&P has used a number of pole configurations and wire sizes of 1.0 mm, 0.8 mm, 0.6 mm diameter in their Smart Drive washing machines for low, mid, high applied voltages. The poles can be wired in parallel to increase current capacity, but only as the shaft RPM increases to produce enough voltage at each winding. The MPPT inverter can switch as the RPM increases but on speed dropping it switches back at about 30% lower RPM than during the speed increase.

There have been different pole configurations. Earlier units had 42 poles and 56 magnet rotors. There are fewer common factors in 42 than the more recent 36 poles and 48 magnet rotors. This allows for more series//parallel switching combinations and better matching of wind speed to output power. At higher power outputs a wind inverter can reach 92% efficiency.

You choose your turbine based on the profile of your local wind speed. More blades provide more torque at lower wind speed but may extract less energy from the wind at higher speed. Peak output of 800 W has been achieved in experiments so far.

The stator poles can be configured as Star or Delta and have been found by David to provide more output in Delta configuration. Other experiments have determined how much current a pole winding can produce. They saturate after a certain current is reached and the output voltage stops rising. Another way to get around this has been found where the shaft can have two motors with different configurations. When the low RPM configuration saturates the high RPM configuration can take over extracting the energy. Diode switching in the rectifier circuit does this without requiring such a smart inverter.

There was more information than this but you had to be there to ask the questions.

Afterwards, a supper comprising scones, strawberry jam and whipped cream was supplied by Adam Cumberlege ZL1CCA

Meeting Closed 10.25 pm

END



Auckland VHF Spectrum Editors Year End report 2015

This will be my second to last Spectrum and time for retirement. This will bring new blood into the group which I believe is important. I will continue to contribute input to the new Editor.

Looking back in my emails folders I see a full six years at this task and have rather enjoyed it. Ian Ashely ZL1AOX was my predecessor and Ian gave excellent service to the group.

The two Presidents I have worked with have been John Dunn ZL1JD and Peter Loveridge ZL1UKG, both very professional and articulate with presentations. You can clearly see the amount of work involved with their duties and this is commendable.

I would like to thank others; Vaughan Henderson ZL1VH for supply Trading table updates, Merv Thomas ZL1SK with the VHF group repeater and beacon sponsorship, along with Doug Cooke ZL1TTE as the Treasurer and for the help Doug has given me on many occasions.

Stephen Hayman – ZL1TPH

AREC report for Spectrum 2015

Branch 66 AREC section has continued to attend and help with communication for community events such as Manukau Santa Parade, Onehunga Santa Parade and Farmers Parade, also Saint Patricks Parade. We also have helped with 3 heritage walks and provided safety communications for the annual pink star walk where up to 3000 walkers take part. Members have also helped with 2 car rallies this year.

Due to our geographic location, unlike smaller towns it would be a rare occasion for us to be used for search and rescue, and small incidents which are usually covered by the large police ambulance and fire contingents in our area. However we are working and training with Auckland Civil Defence so to be of assistance in the event of an incident requiring Civil defence activation.

To his end, we are providing personnel to train for and assist in the activation of the Civil defence communication centre at Bledisloe building. Training and learning has been obtained from 2 recent exercises that were held one in the Manurewa area and the other in Howick where members of our group manned the radios at Bledisloe building. Plans are in the pipeline to extend our civil defence activities to the local community level.

More members are required to cover future activities. If you would like to join us, please contact me.

Laurie Mathews ZL1ICU Section leader VHF group branch 66 AREC

Auckland VHF Group Inc

Minutes of Annual General Meeting 10th November 2014

Start: 8.00 pm

Attendance: As per attendance book

Apologies: ZL1ICU, ZL1MYL

Minutes:

That the minutes of the AGM held 11th November 2013 be accepted - deferred as no copy was available at the time.

Moved: ZL1UKG, Seconded: ZL1CCA Passed

Presidents Report:

Peter ZL1UKG presented his report as it appeared in the Spectrum November 2014 issue, pages 6 to 10 inclusive.

Moved that his report be adopted: ZL1UKG, Seconded ZLITTE Passed

Financial Report

Doug ZLITTE presented his report as it appeared in the Spectrum November 2014 issue, page 15 and spoke to the draft accounts as circulated at the meeting.

Thanked Laurie & Marlene for donation of D-Star repeater Internet costs.

Expects to see increase in Legal Fees due to negotiations over Klondyke lease.

Thanks Merv for help with Repeater sponsorship.

Special thanks to Rod acting as auditor for the group - over 20 years. But Rod says he will step down now that this year's accounts are done.

Doug will separate the Repeater accounts into locations for the 2015 year to better report on individual sites.

Moved that his report be adopted: ZLITTE Seconded Merv ZLISK Passed

Vaughan ZLIVH moved that a vote of thanks be given to Doug for his work in preparing the accounts Seconded ZL1JD.

Peter ZL1UKG spoke about the changes in insurance premiums which will affect us. The new policies demand that each site covered by an insurance policy be specified. Currently the address given on our insurance policy is Hazel Ave, this means that all our repeater sites, as they currently stand, are un-insured. This will be dealt with in the next year. ZL1JD to follow up with his Broker.

We had a visitor from the Tennis Club next door who spoke of insuring via the council as they get a special deal with insurers - Vaughan asked for business card - will follow up.

*Doug ZL1TTE spoke about the merits of keeping the subscription at \$30.
Moved that the 2015 subscription remain at \$30.00 as per last year: ZL1TTE*

*Moved that Raequel Probine be appointed the auditor for the next financial year:
ZL1TTE Seconded ZL1TUX Passed*

Spectrum Editor Report

Stephen ZL1TPH will continue in the role for 2015.

AREC Report

Laurie ZL1ICU presented his report in the Spectrum November 2014 issue, page 16.

ATV Report

No report as no ATV activity is currently permitted.

Repeater Report

This was covered in the Presidents Report page 9.

Graham Baker used to monitor repeaters and record call signs. Could do this again.

John ZL1JD reported that the 2mtr & 70cm beacons are currently off the air owing to interference caused to other services. They are currently being rebuilt with the remaining problem being with keyers. Graham ZL1TOF suggested that a digital mode of modulation be applied in addition to CW call sign and location.

Trading Table Report

*This was covered in the Presidents Report page 10 and Financial Report page 15.
The Committee will appoint a Trading Table manager next year.*

END

Results of the 2015 Microwave contest – 3/4 October

VHF-UHF-SHF-EHF Contests, as administered by the Auckland VHF Group Inc.

| Overall Winner | Station | Points |
|-----------------------|----------------|---------------|
| | ZL1SWW | 899 * |
| | ZL2HFP | 711 |
| | ZL1GSG | 574 |

| Band winner | Station |
|--------------------|----------------|
| 32 cm (925 MHz) | ZL1GSG-ZL1SWW |
| 23 cm (1296 MHz) | ZL1GSG |
| 9 cm (3400 MHz) | ZL1SWW |
| 6 cm (5760 MHz) | ZL1GSG |
| 3 cm (10368 MHz) | ZL1GSG |
| 1.2 cm (24048 MHz) | ZL2HFP-ZL1SWW |

| Greatest DX | Station | Distance |
|--------------------|----------------|-----------------|
| 32 cm | ZL1GSG-ZL1SWW | 55 km |
| 23 cm | ZL1AKW-ZL2HFP | 180 km |
| 9 cm | ZL1SWW-ZL2HFP | 106 km |
| 6 cm | ZL1GSG-ZL1SWW | 55 km |
| 3 cm | ZL2HFP-ZL1SWW | 106 km |
| 1.2 cm | ZL2HFP-ZL1SWW | 106 km |

Certificate *

Active Stations: 7 in total

ZL1AKW ZL1AVZ ZL1GSG ZL1SWW ZL1TBG ZL2BKC ZL2HFP

Operator comments

Home brew transverter 0.5 W output 1 metre dish with multiband feed

DN6NT 1296 transverter 1.5 W 1 metre dish

6 cm home brew transverter 20 mW into 1 metre dish with multiband feed

3 cm home brew transverter 1 W output 1 metre dish

24 GHz 500 mW home brew transverter 30 cm dish

ICOM 9100 10 watts

9 cm 20 watt TRV into flange feed and FT817 432 IF

And the bonus station, 5.765 GHz Muriwai beacon comes in S2 (ZL1TBG)

No logs from me today, but I did setup and heard the 10 GHz Mt Climie beacon (ZL2BKC)

The rules for VHF-UHF-SHF-EHF Contests, as administered by the Auckland VHF Group; on behalf of all VHF groups are available on the NZART website: <http://www.nzart.org.nz/activities/contest-rules/rules-vhf-and-above/>

All contest logs should be sent, to arrive within two weeks, to: VHFcontest@nzart.org.nz

Or by mail to: Contest Manager, PO Box 10138, Dominion Road, Auckland 1446.

Stephen Hayman - ZL1TPH





Greg ZL1GSG active in the October 2015 microwave contest



Steve ZL1TPH



**Amateur Radio Emergency Communication.
Volunteers in radio communications.
Using our resources to help the community.**

INFORMATION

The Auckland VHF Group has an active AREC section that works closely with Auckland City Civil Defence. They provide advice, resources and manpower to assist in times of need. The Auckland VHF Group clubrooms provide a backup system to complement the existing systems maintained by Auckland City Council Civil Defence.

The AREC section is headed by Section Leader Laurie Mathews ZL1ICU.

From time to time the VHF Group has training sessions and exercises. Members also assist with sports events, parades and Rally NZ.

For further information about AREC please see the NZART web site.

JOIN BRANCH 66 AREC

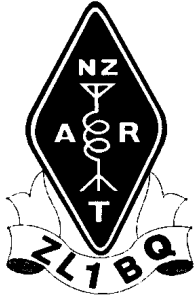
All members of the Auckland VHF Group are encouraged to join the AREC section. Your contribution, large or small is appreciated by all involved.

For further information about joining branch 66 AREC contact the Section Leader or his Deputy.

AREC:

Section Leader; Laurie Mathews ZL1ICU 634 5130 0274 817 463 perma@xtra.co.nz

Deputy Section; George Raffles ZL1TUX 626 6944 021 735 361 zl1tux@xtra.co.nz



AUCKLAND VHF GROUP (INC)

**SUPPORT THE EFFORTS OF THE VHF GROUP THROUGH YOUR
SUBSCRIPTION**

SUBSCRIPTIONS FOR 2015

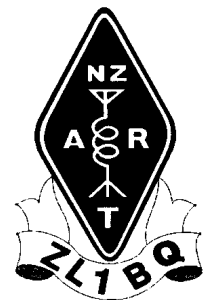
THE SUBS GO TOWARDS;

- Maintenance and on-going improvements to beacons, repeaters and linking systems for the national system, including the Klondyke repeater site.
- Provides on-time and free access to spectrum magazine as soon as it is available.
- Provides facilities for good speakers and lecturers at our general meetings
- Discounted access to our trading table goodies
- Access to test equipment and technical help when needed

FULL MEMBERSHIP \$30.00

ASSOCIATE MEMBERSHIP \$26.00

FAMILY MEMBERSHIP ADDITIONAL \$4.00



SEE ATTACHED MEMBERSHIP RENEWAL FORM (next page)

REMEMBER TO KEEP US INFORMED OF YOUR INTERNET ADDRESS! OTHERWISE WE CANNOT SEND YOU SPECTRUM!

| | | | |
|-----------------------------|--|---------------------------|------------------|
| NAME | Mr/Mrs/Miss/Ms | Christian or given | Surname |
| | Mr | | |
| Address | | | |
| | | Phone: (home) | |
| | | Phone: (work) | |
| | | Phone (Cell) | |
| | | Email | |
| Occupation: | | Callsign | |
| NZART Member | | Branch assigned | |
| AREC Member | | Branch assigned | |
| Category | | | To pay |
| Membership | Full | \$30.00 | \$ |
| New/Renewal/Change | Associate | \$26.00 | \$ |
| Receipt # | Family Add | \$4.00 | \$ |
| Donations | Auckland ATV | | \$ |
| | Auckland/Klondyke | | \$ |
| | Brynderwyn | | \$ |
| | Data/D-Star | | \$ |
| | IRLP | | \$ |
| | Beacon/Repeater/Links/ATV Licences | | \$ |
| | Other | | \$ |
| | | Total | \$ |
| Payment | | | |
| Circle one --> | Cash | Cheque | Internet deposit |
| Invoice/Statement re-quired | Please Advise Treasurer | | |
| Internet | To account ASB 12-3020-0473626-00. Account name is: Auckland VHF Group Inc. Include your Name/Callsign for us to track. Note: this form needs to be returned to update records. FAX to 028 25544801 or Email d-jcooke@ihug.co.nz | | |
| Post | The Treasurer, Auckland VHF Group Inc., PO Box 10138, Dominion Road, Auckland 1446. | | |
| In Person | Bring this form and payment to the next club meeting, 2 nd Monday of the month or to the Committee meeting last Monday of the month. | | |

The Auckland VHF Group Inc Branch 66 NZART gratefully acknowledges the sponsorship of Branch 66 Beacons, Repeaters and Fixed Links license fees and the Group's repeater operations by the following radio amateurs and NZART Branches for 2015:

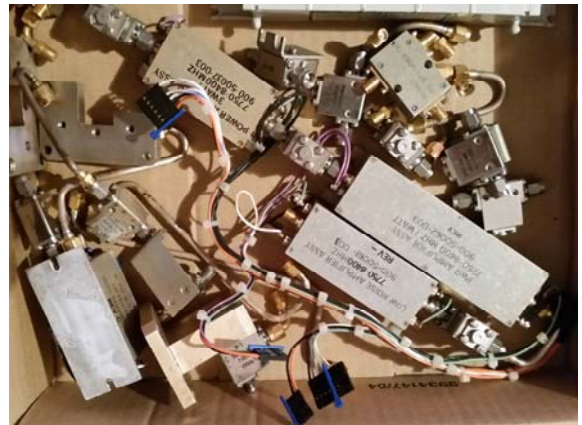
| <u>Repeater frequency</u> and name | Repeater location | Sponsorship advised for 2015 | Amount paid |
|---|----------------------|---------------------------------|----------------|
| 53.725 Repeater | Klondyke Road | Gwynne Rowe ZL1AAR | \$50.00 |
| 144.253 Beacon | Nihotupu | Under repair | |
| 145.625 Data Rptr | Klondyke Road | NON-operational | |
| 145.650 Dstar repeater | Klondyke Road | Laurie Mathews ZL1ICU | \$50.00 |
| 146.625 Repeater | Klondyke Road | Laurie Mathews ZL1ICU | \$50.00 |
| 146.700 Repeater | Ruaotuhenua | Dennis Thornton ZL1TAY | \$50.00 |
| 146.900 Repeater | Mt Puketutu Radio | Franklin Branch ZL1SA | \$50.00 |
| 432.253 Beacon | Nihotupu | Under repair | |
| 438.175 Dstar repeater | Klondyke Road | Laurie Mathews ZL1ICU | \$50.00 |
| 438.500 Repeater | North Head | Franklin Branch ZL1SA | \$50.00 |
| 439.850 Link Tx to Kaimai | Klondyke Road | Franklin Branch ZL1SA | \$50.00 |
| 439.875 Ak Nat Sys Rptr | Klondyke Road | David probine ZL1TND | \$50.00 |
| 439.900 Link Tx to Egmont | Klondyke Road | Adam Cumberlege ZL1CCA | \$50.00 |
| 439.950 Link Tx to Brynderwyn | Klondyke Road | John Dunn ZL1JD | \$50.00 |
| 1291.9 Repeater | 217 Glenfield Rd | | |
| | | Total Sponsorship | \$550 |
| NZART Inc: Branch donations | | | |
| Franklin Radio Club. Br: 10 | | \$50.00 | |
| Papakura Radio Club. Br: 65 | | \$300.00 | |
| Auckland Radio Club. Br: 02 | | \$100.00 | |
| Manukau Radio Club. Br: 21 | | \$100.00 | |
| | Donations | \$550.00 | |
| Prepared by Merv Thomas ZL1SK and current as at 31/03/2015 | | | |

TRADING TABLE

Currently our Trading Table is only open on meeting nights. Opening on Saturdays may resume later in the year so keep an eye out for announcements in Spectrum.

NEW – NEW - NEW

We have heaps of parts from dismantled commercial analog TV gear – transmitters, filters, circulators, patch panels, power supplies, cabinets. Too much to list individually, so come along to the clubrooms and have a look



And there's

more....



Motorola Oncore VP GPS Receivers

The VP Oncore is Motorola's original credit card-sized 8-channel GPS receiver. It measures just 2" x 3 1/4" x 1/2", has very low power requirements, and is well suited for embedded applications. The VP Oncore has the capability of acting as a DGPS reference station for greater position accuracy.

The units on offer have been in storage for some time, and the tinplate screen covers show some signs of corrosion – see photo. Most of the units have a sticker attached saying “Prog NMEA” and are likely to output data in NMEA V2.0 serial format.

Interface is via a 10-pin board header – see reference below for pinout details. Power supply is 5.0v +/-0.25V. Module requires an external active GPS antenna (5V power supplied by receiver module). GPS connector is a snap-on type OSX. Output data includes a 1PPS (one pulse per second) output and TTL level Tx and Rx data lines.

More details can be found at : <ftp://ftp.tapr.org/gps/motorola/oncore.eng.notes.pdf>



\$20.00 each – limited quantity.



N-Type connectors for LMR-400

Crimp-on only. \$5.00 each

Other coaxial connectors available from the Trading Table:

Please note we have sold out of TNC connectors – these are no longer available.

| | |
|--|-------------|
| BNC plugs 50 ohm for RG58 coax (solder/clamp type) | \$2.50 each |
| BNC plugs 50 ohm for RG58 coax (crimp on type) | \$2.50 each |
| BNC sockets 75 ohm – single hole mounting | \$1.50 each |
| N Type male solder on suit RG213 coax | \$4.00 each |
| N Type male right angle, suit RG213 coax | \$4.00 each |
| N Type male crimp on suit RG213 coax ** | \$3.00 each |
| N Type socket crimp on suit RG213 coax ** | \$3.00 each |
| N Type male right angle, solder on suit RG213 coax | \$4.00 each |
| N Type male sliver plated solder/clamp on suit RG58 coax | \$3.00 each |
| N Type male crimp on suit RG58 coax ** | \$2.50 each |
| N-Type adaptor Male to Male | \$3.00 each |
| Adaptor TNC Male to UHF Female | \$3.00 each |

** Crimping service available for these at club meetings.

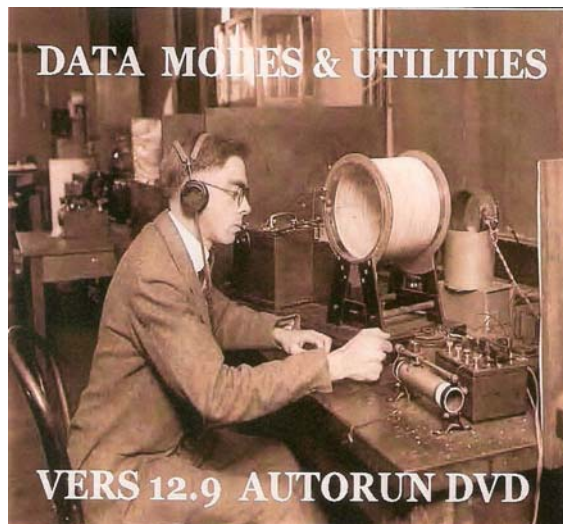
Heatsinks for TO-220 transistors: These are Thermalloy THM-6071 top hat type with cutout.



20c each

DATA MODES & UTILITIES CD

Version 12.09 has even more updates and new programmes on this latest release. This is an excellent selection of software, notes, links to web sites compiled by the late Doug ZL1AVY and this latest edition has over 300 applications, references and notes. These cover all digital modes, useful software applications for your pc, contest logging and e-qso programmes, radio interfaces, software defined radio information, slow scan tv software, test equipment utilities, satellite tracking software, and much, much more. **Still only \$10.00**



SMD Quartz Crystals: In addition to our selection of leaded holders, now have 6MHz and 20MHz crystals in SMD style housings:

6.0000 MHz HC49S SMD package 20pF load capacitance \$1.00 each

20.0000 MHz HC49S SMD package P/No. 7D20000183BSAF25Q3
1.00 each



Capacitors, Surface Mount – most are 1206 size.

Packed in bags of 10 for 50c

NPO 50V working: 0.68pF, 1.2pF, 1.8pF, 2.2pF, 5.6pF, 6.8pF, 8.2pF, 10pF, 15pF,

22pF, 33pF, 68pF, 82pF, 270pF, 470pF, 100nF.

63V working: 10pF, 47pF, 100pF, 270pF, 330pF, 470pF, 1nF, 1.2nF, 2.2nF, 4.7nF, 10nF
10uF 25V electrolytic

Capacitors, Metal Clad Mica (Unelco, Semco)

\$2.20 each

Values (in pF):

Or 10 up for \$2.00 each

3.9, 4.7, 6.8, 10, 12, 15, 20, 22, 24, 27, 30, 33, 34, 47, 51, 62, 82,

100, 120, 130, 150, 220, 240, 300, 360, 680pF

Most are rated 350V working $\pm 5\%$ tolerance.

Similar to illustration, tab does not have hole:



Mixers:

Mini-Circuits Model TFM-2-408-1:
+17dBm LO drive, 40dB isolation
\$25.00 each



5 – 1000MHz 6dB insertion loss,

Note: some of these mixers are labeled TFM-2-408-2. They are identical to the TFM-2-408-1.