

**The Official Newsletter of the  
Auckland VHF Group Inc.  
Spectrum**



**Doug Cooke taking part in AREC operations**

**For the Euology from the service**

**See page 6**



# Auckland VHF Group Inc.

## Branch 66 NZART

PO Box 10138, Dominion Rd, Auckland 1446  
Clubrooms: 30 Hazel Ave, Mt Roskill

| Office  | Name               | Call sign | Home       | Work / Mobile   | E-mail   |
|---|--------------------|-----------|------------|---|--|
| President   | Vacant             |           |            |   |  |
| Vice President                                    | Dave Dingley       | ZL1TIA    | 828 9394   |   | <a href="mailto:marday@ihug.co.nz">marday@ihug.co.nz</a>             |
| Secretary   | Marlene Matthews   | ZL1MYL    | 634 5130   |   | <a href="mailto:perma@xtra.co.nz">perma@xtra.co.nz</a>               |
| Treasurer   | Vacant             |           |            |   |  |
| Committee   | George Raffles     | ZL1TUX    | 626 6944   | 021 735 361   | <a href="mailto:graffles@xtra.co.nz">graffles@xtra.co.nz</a>         |
|   | Brendon Reid       |           |            |   | <a href="mailto:brendon@aa.net.nz">brendon@aa.net.nz</a>             |
|   | Peter Loveridge    | ZL1UKG    | 377 3398   |   | <a href="mailto:peterlov@ihug.co.nz">peterlov@ihug.co.nz</a>         |
|   | Greg Storz         | ZL1GSG    | 849 2878   |   |  |
|   | Darryl Grange      | ZL1TCI    | 817 4553   |   |  |
| AREC Section Leader                               | Laurie Mathews     | ZL1ICU    | 634 5130   | 0274 817 463  | <a href="mailto:perma@xtra.co.nz">perma@xtra.co.nz</a>               |
| Deputy Section                                    | George Raffles     | ZL1TUX    | 626 6944   | 021 735 361   | <a href="mailto:graffles@xtra.co.nz">graffles@xtra.co.nz</a>         |
| ZL1BQ Trustee                                     | Vaughan Henderson  | ZL1VH     | 418 1071   | 021 844 804   | <a href="mailto:vaughanh@vodafone.co.nz">vaughanh@vodafone.co.nz</a> |
| Repeater Trustee                                  | Vaughan Henderson  | ZL1VH     | 418 1071   | 021 844 804   | <a href="mailto:vaughanh@vodafone.co.nz">vaughanh@vodafone.co.nz</a> |
| Klondyke Managers                                 | ZL1VH / ZL1BK      |           |            |   |  |
| 690 Manager                                       | Dennis Seymour     | ZL1UET    | 532 8666   |   |  |
| 850/670 Manager                                   | Vaughan Henderson  | ZL1VH     | 418 1071   | 021 844 804   | <a href="mailto:vaughanh@vodafone.co.nz">vaughanh@vodafone.co.nz</a> |
| ATV/Beacons                                       |                    |           |            |   |  |
| Spectrum Editor                                   | Peter Loveridge    | ZL1UKG    | 09-4276362 |   | <a href="mailto:peterlov@ihug.co.nz">peterlov@ihug.co.nz</a>         |
| Trading Table                                     | Vaughan Henderson  | ZL1VH     |            | <a href="mailto:tradingtable@aucklandvhfgroup.org.nz">tradingtable@aucklandvhfgroup.org.nz</a>          |  |
| Hon Auditor                                       | Raequel Probine    |           | 630 8044   |   |  |
| Webmaster   | Terry Corin ZL1BPA |           |            | <a href="mailto:zl1bq.webmaster@gmail.com">zl1bq.webmaster@gmail.com</a>                                |  |
| Club Web Page                                     |                    |           |            | <a href="http://www.gsl.net/zl1bq">http://www.gsl.net/zl1bq</a>   |  |
| ATV Interest Group                                |                    |           |            | <a href="http://www.gsl.net/zl1qf/atvug/ATVusers.html">http://www.gsl.net/zl1qf/atvug/ATVusers.html</a> |  |
| ZL1VHD Dstar gateway administrator; Laurie ZL1ICU |                    |           | 634 5130   | 0274 817463   | <a href="mailto:perma@xtra.co.nz">perma@xtra.co.nz</a>               |
| ZL1VHD Dstar gateway registration URL :           |                    |           |            | <a href="http://zl1vhd.dstar.org.nz">http://zl1vhd.dstar.org.nz</a>                                     |  |

### 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 Peter ZL1UKG [peterlov@ihug.co.nz](mailto:peterlov@ihug.co.nz)

# Auckland VHF Group (Inc) Branch 66

## **General Meeting notice**

**08<sup>th</sup> May 2017 7.30pm, Hazel Avenue Club Rooms**

**(Located on left at the end of Hazel Avenue)**

### ***The Evenings Subject:***

#### **NZART AGM Remit Discussion**

Following the Remits Peter Loveridge ZL1UKG will give a presentation on measuring Field Strength. What are the requirements to make measurements and can you use the equipment you already have?

(This is possible depending on your antenna and access to a good signal generator).

This meeting offers engagement in NZART administration  
and practical advice.

**EVERYBODY WELCOME**

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# General Meeting April 2017

## General Business

As required by the constitution nominations must be requested for unfilled positions on the executive of the club. There were no nominations or volunteers for President or Secretary.

Marlene Matthews read out a message from Doug Cooke, the club Treasurer. He is very unwell and may only have weeks rather than months to live. He would like to be the treasurer but will need assistance. He wants to make the decisions that are right for him. He wants people to help look after Juliana. He can't speak clearly because of ulcers in his mouth due to his medication for the heart. He has made up a plan for the next few weeks after being depressed on hearing the findings of the professionals. It will help him to have the card with our messages in it that will remind him of the interactions with each of us.

Approval was given to pay \$175 for the PO Box.      Moved ZL1TIA,    Seconded ZL1TUX

Bruce Sanford ZL3HU has surplus audio and video equipment available free to amateurs. It was described as being somewhat ancient and not of prime interest to the VHF Group. The list included items such as microphones, tripods, audio amplifiers, CD / DVD players.

A member asked about April Spectrum. The delay is due to problems gaining access to Doug Cooke's computer for the email address lists that are used to send out the emails with Meeting Notices and web site links for the Spectrum download.

### The guest presentation — "Not the Red Baron"

The historian Judith Robinson gave a presentation on the background and experiences of ten of the flying "Aces" of the First World War. They became Aces when they had shot down several enemy planes.

The first one William Rhodes-Moorhouse was a pilot pre-war and had a connection to New Zealand. Flying in a two person plane the rear seat would have bombs in the cockpit with the crew who would throw them over the side of the plane. Aiming was very primitive.

Lanoe George Hawker had been a pre-war pilot. He spent time in the Navy, Army and then the Royal Flying Corps as an engineer but didn't like it. He gained a pilot commission and was able to provide a lot of feedback to the maintenance crews. He sometimes took a rifle in the plane with him. Although pilots may have been good shots they were not used to movement in 3-D and no one was hit.

Lewis Strange invented a synchroniser for guns to fire through the blades of a propeller but no one at the time could think of a use for the idea.

Albert Ball was initially too young to fight and ended up in the Cyclist Corps, perhaps as a messenger. On becoming a pilot he was not prepared to accept responsibility for a

passenger and always flew single seaters. His flying skills were such that he was promoted to squadron leader but as a loner he did not develop any leadership skills.

Lothar von Richthoven was the younger brother of the Red Baron and was available to use as promotion and propaganda by the Germans.

James Thomas Byford McCudden had excellent mechanical skills but initially trained as an observer and later learned to fly. His multiple skills allowed him to develop the tactics of air fighting. He trained his pilots to fight as a team.

Edward Mannock joined the National Telephone Company. He kept on improving himself, becoming interested in politics and was posted to Turkey where he was interred when war broke out. On being repatriated he joined the Army Medical Core then the Engineers then the Royal Flying Core. He was a good teacher for younger pilots.

There were more names and details but there was insufficient time to record all of the details about every man. The pilots were often from more privileged backgrounds but that did not necessarily make them successful in the air.

Peter Loveridge 07 May 2017

### ICOM In New Zealand Changes Hands

Sharon and I are writing to you inform you that after 23 years with the Dawson family, she has decided to sell ICOM Communications NZ limited and pursue other interests in Australia.

ICOM NZ was sold to RWB Communications, effective from Friday 28th April 2017.

Sharon looked for a buyer who shared the same family values and principles as her and her father (Dave) before her. She believes that the new owner Richard Binns will bring exactly that. Richard has over 30 years' retail management experience, latterly in senior roles within organisations within the UK, New Zealand and Australia.

There are no major changes planned for the business and we are both delighted that Simon Green, Justin Lewis, Deborah Wallbank and Peter Beekmans have agreed to move to the new business. Priscilla Halstead will remain with us for the time being to ensure a smooth hand-over. Unfortunately, Mike Anderson and Charlotte Brandreth will not be part of the team going forward.

The new business will trade as RWB Communications Limited and continues to be the exclusive distributor for ICOM products within New Zealand. Other than updated bank account details and (if necessary) contracts / agreements it will be business as usual.

Sharon and Richard want to thank you for your continued support for ICOM New Zealand and Richard is particularly looking forward to meeting you all in person and developing the ICOM brand and its products within New Zealand.

Kind regards,

Richard Binns & Sharon Dawson

Main Line: 09-2744062

or 0800-744062

## Doug Cooke ZL1TTE - SK

The funeral for Douglas Charles Cooke, better known as Doug ZL1TTE took place at St Andrews Presbyterian Church, 11 Vincent St, Howick at 1 pm Thursday 04 May 2017

The service was a celebration of his life, revealing many sides that were not known by people seeing him in only one context such as amateur radio. Some of the facets spoken of at the funeral are recorded below.

Doug married Juliana in 1984 and was devoted to his family. There were family trips to Waiwera and later a time-share at Pahia to holiday in the winterless north. Following repairs there was a boat for fishing and a caravan for family trips.

Doug joined many clubs, organisations and charities. When young there was Life Brigade and Scouts, with many badges earned. An early interest was CB radio, followed by learning electronics. Gaining his amateur radio licence, he joined the Auckland VHF Group and took part in many Car Rallys as a field safety radio operator. Later he joined the volunteers that help run them, where he became an expert Results operator.

He was interested in communications and had a PC repair business in his garage, specialising in the repair of hard drives. This experience lead him into the world of software and programming, enabling him to maintain a database of AREC activities and write the scripts to run it. He became the AREC National Secretary and kept records of the national activities which were accurate and on time. His annual reports to NZ SAR were the best of the four organisations that receive funding.

On joining the Auckland VHF Group, he served on the committee and was editor of Spectrum magazine for several years and later took on the role of Treasurer which he held for 15 years.

Doug loved parades, starting with the Auckland Santa Parade and was disappointed if an event was not going to have a parade. He knew what had to happen to make a successful parade.

Doug received a number of awards for his volunteer and professional activities including: Volunteer of the Year from Auckland City in 2008; 15 years of service to the Body Corporate of his timeshare in Paihia; Medals from the Fire Service in his role as a Communicator in the Northern Communications Centre.

Doug enjoyed organising and being in the lead. He was humble and wanted to be in the background of the events he helped to organise. His life was lived for others.

A collage of photos from his life was projected on a screen for the audience to see showing his extended family from grandparents to children and activities from all the phases of his life. A reception was held for those attending to share their memories after the service.

Peter Loveridge and Vaughan Henderson

05 May 2017



Gathering to farewell Doug for the last time



## The VHF Group Executive by numbers — Committee Member

Brendon Reid BSc. Dip Eng.(elec)

Managing Director of AA Group Ltd.

CEDIA certified instructor

Brendon began installing smart home technology in the 1980's building his first home automation system at the age of 12.



in

In 1995 while at Auckland University studying engineering and computer network architecture, he founded Automation Associates which has grown to be one of New Zealand's most successful high end custom installation businesses.

Expanding into import and distribution, commercial integration, and the digital healthcare market, AA Group of technology companies now employs 40 staff with offices across New Zealand.

Brendon has served as a member of the Custom Electronic Designers and Installers Association NZ Board of directors and delivers seminars on home automation design and lectures on custom installation both locally and internationally.

His interest in radio started by hacking a Motorola 9800xl mobile phone to be able to scan calls on the old 025 analogue GSM system. Next came two deployments of digital mobile fleet radio systems and then on to SDR scanners for RF noise detection for high end wifi systems.

Based in Auckland, New Zealand, if you can't find him at the local with friends he will be tinkering with alternative energy projects in his shed listening to an icom scanner.

Email [brendon@aa.net.nz](mailto:brendon@aa.net.nz)

Visit [www.aa.net.nz](http://www.aa.net.nz), [www.techstlye.co.nz](http://www.techstlye.co.nz), [www.ecare.net.nz](http://www.ecare.net.nz)



## Results of the 2017 DX Weekend Contest – 11/12 February

VHF-UHF-SHF-EHF Contests, as administered by the Auckland VHF Group Inc; on behalf of all VHF groups, including all New Zealand radio amateurs and supported by NZART.

|                       | Station | Points |
|-----------------------|---------|--------|
| <b>Overall Winner</b> | ZL1SWW  | 5851 * |
|                       | ZL2BKC  | 5128   |
|                       | ZL4AA   | 2795   |
|                       | ZL2AB   | 2428   |
|                       | ZL1GSG  | 2167   |
|                       | ZL4PLM  | 1667   |
|                       | ZL4OL   | 1466   |

Check Logs received from: ZL1BQ

|                    |         |        |
|--------------------|---------|--------|
| 6 m (50 MHz)       | Station | Points |
| <b>Band winner</b> | ZL4AA   | 238 *  |
|                    | ZL2AB   | 122    |
|                    | ZL2BKC  | 76     |
|                    | ZL1SWW  | 52     |

|                    |         |        |
|--------------------|---------|--------|
| 2 m (144 MHz)      | Station | Points |
| <b>Band winner</b> | ZL2TDN  | 1381 * |
|                    | ZL2AB   | 775    |
|                    | ZL4AA   | 696    |
|                    | ZL1SWW  | 583    |
|                    | ZL1GSG  | 563    |
|                    | ZL4PLM  | 488    |
|                    | ZL2BKC  | 438    |

|                    |         |        |
|--------------------|---------|--------|
| 70 cm (432 MHz)    | Station | Points |
| <b>Band winner</b> | ZL4AA   | 701 *  |
|                    | ZL2AB   | 596    |
|                    | ZL1GSG  | 527    |
|                    | ZL2BKC  | 427    |
|                    | ZL1SWW  | 250    |
|                    | ZL4PLM  | 231    |

|                    |         |        |
|--------------------|---------|--------|
| 32 cm (925 MHz)    | Station | Points |
| <b>Band winner</b> | ZL1GSG  | 202 *  |
|                    | ZL1SWW  | 28     |

|                    |         |        |
|--------------------|---------|--------|
| 23cm (1296 MHz)    | Station | Points |
| <b>Band winner</b> | ZL1SWW  | 2123 * |
|                    | ZL4AA   | 1160   |
|                    | ZL4PLM  | 1048   |

|                    |         |        |
|--------------------|---------|--------|
|                    | ZL2AB   | 934    |
|                    | ZL2BKC  | 924    |
|                    | ZL2TAL  | 223    |
|                    | ZL1GSG  | 202    |
| 9 cm (3400 MHz)    | Station | Points |
| <b>Band winner</b> | ZL2BKC  | 2770 * |
|                    | ZL1SWW  | 2228   |
|                    | ZL1GSG  | 441    |
| 6 cm (5760 MHz)    | Station | Points |
| <b>Band winner</b> | ZL1SWW  | 292 *  |
|                    | ZL1GSG  | 227    |
| 3 cm (10368 MHz)   | Station | Points |
| <b>Band winner</b> | ZL2BKC  | 493 *  |
|                    | ZL1SWW  | 295    |
|                    | ZL1GSG  | 180    |

\* Certificate

|                |               |          |
|----------------|---------------|----------|
| <b>Best DX</b> | Station       | Distance |
| 6 m (External) | ZL4AA-VK5PJ   | 2900 km  |
| 6 m (Internal) | ZL2AB-ZL1BQ   | 318 km   |
| 2 m            | ZL4AA-ZL2BRG  | 640 km   |
| 70 cm          | ZL2BKC-ZL1CBE | 469 km   |
| 32 cm          | ZL1SWW-ZL1GSG | 50 km    |
| 23 cm          | ZL4AA-ZL3RC   | 391 km   |
| 9 cm           | ZL1SWW-ZL1GSG | 50 km    |
| 3 cm           | ZL1GSG-ZL1SWW | 50 km    |

#### Active Stations (40 in total)

ZL1ABS, ZL1AKW, ZL1AVZ, ZL1BK, ZL1BQ, ZL1BRL, ZL1CBE, ZL1CZZ, ZL1EME, ZL1GSG, ZL1TBG, ZL1XDC  
 ZL2AB, ZL2BKC, ZL2BRG, ZL2EX, ZL2JBK, ZL2KG, ZL2LBJ, ZL2TAL, ZL2TDN, ZL2TLF, ZL2UV,  
 ZL2UFW, ZL2VZ, ZL2WHO  
 ZL3LF, ZL3NW, ZL3RC, ZL3RJ, ZL3TKI  
 ZL4AA, ZL4BC, ZL4FM, ZL4HSV, ZL4JW, ZL4LV, ZL4OL, ZL4PLM, ZL4UC  
 VK52PJ

#### Active team members

ZL1BHD, ZL1VH, ZL2APV, ZL2KGF, ZL2UJT, ZL2UV, ZL4DK, ZL4TAE

## Operator comments

ZL1SWW – Good to work DX on 1296 MHz from home the first day and even better the second day up at the field site. Obstructions limited the microwave bands in the southerly direction to max out at 3400 MHz over long distance. 10 GHz easily attainable at 50 km irrespective of the hill in front!

ZL2BKC – Pleased to see so many stations making operation portable this year. 70 cm and 23 cm were much more active than previous years – several times there were pileups which is unheard of on 23cm!

ZL4AA – Light winds and cloud/mist on Saturday, strong winds picked up on Sunday so packed up a little early before something blew down. Band conditions good up to Christchurch most of the time, best on Sunday morning. Heard several Wellington stations on 2m but only managed one contact.

## Station equipment

2m – 500W amp and single 13 element Yagi

2m – FT290r + PA 40W output. 9 element portable Tonna horizontally polarised.

2m – TR751 and 180W amplifier to 2 x 9 element Yagis

2m IC-706 MkIIg into 500 Watt PA and 11 element Yagi at home station.

2m – IC706 driving a linear, 9 element Yagi at 7.5 meters  
6m – TS680 plus homebrew amplifier 80W and 5 element Yagi

6m – FT857D with homebuild 4 element Yagi

6m – IC7400 100W into 4 element beam at 55 feet from home station

70cm - TR9500 into 80 Watt PA and 11 element Yagi

70cm – FT847, 48 watts to a 10 element Yagi, about 5.5m above ground

70cm – TR851 and 100W homebrew amplifier and 3.3m dish

32cm - FT290r with home brew transverter 3 watts 9 element Yagi

23cm - FT817 with home-brew transverter, W6PQL amp kit powered by 12V and 24V batteries, 27 element loop Yagi

23cm – 275W out of amplifier to 4 x 67 element Yagis.

23cm – IC202E and MMT1296 transverter, 1.2m dish

23cm – TS2000X, 10 watts out to a 60 element Yagi at 6.5m

23cm – Homebrew transverter 10W out to a 1.2m dish

9cm – FT290r with converted DXR740, 5 Watts out. 60cm dish with cavity backfeed.

6cm – FT290r with converted DXR768, 5 Watts out. 60cm dish with Pac wireless reverse feed.

3cm – FT290r with converted DXR710, 5 Watts out. 60cm dish with reverse feed.

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](mailto:VHFcontest@nzart.org.nz) or by mail to: Contest Manager, PO Box 10138, Dominion Road, Auckland 1446.



ZL2AB Operating from Stratford Plateau, Mt. Taranaki.



**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](mailto:perma@xtra.co.nz)

Deputy Section; George Raffles ZL1TUX 626 6944 021 735 361 [zl1tux@xtra.co.nz](mailto:zl1tux@xtra.co.nz)

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## AUCKLAND VHF GROUP (INC)

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

### **SUBSCRIPTIONS FOR 2017**

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 **\$45.00**

ASSOCIATE MEMBERSHIP **\$40.00**

FAMILY MEMBERSHIP ADDITIONAL **\$10:00**



***SEE ATTACHED MEMBERSHIP RENEWAL FORM (next page)***

**REMEMBER TO KEEP US INFORMED OF YOUR INTERNET ADDRESS!**

**OTHERWISE WE CANNOT SEND YOU SPECTRUM!**

|                             |  |                           |                  |
|-----------------------------|--|---------------------------|------------------|
| <b>NAME</b>                 | <b>Mr/Mrs/Miss/Ms</b>  | <b>Christian or given</b> | <b>Surname</b>   |
|                             | <b>Mr</b>  |                           |                  |
| <b>Address</b>              |  |                           |                  |
|                             |  | Phone: (home)             |                  |
|                             |  | Phone: (work)             |                  |
|                             |  | Phone (Cell)              |                  |
|                             |  | Email                     |                  |
| <b>Occupation:</b>          |  | <b>Callsign</b>           |                  |
| <b>NZART Member</b>         |  | <b>Branch assigned</b>    |                  |
| <b>AREC Member</b>          |  | <b>Branch assigned</b>    |                  |
| <b>Category</b>             |  |                           | To pay           |
| <b>Membership</b>           | Full   | \$45:00                   | \$               |
| <b>New/Renewal/Change</b>   | Associate  | \$40:00                   | \$               |
| <b>Receipt #</b>            | Family Add   | \$10:00                   | \$               |
| <b>Donations</b>            | Auckland ATV   |                           | \$               |
|                             | Auckland/Klondyke  |                           | \$               |
|                             | Brynderwyn   |                           | \$               |
|                             | Data/D-Star  |                           | \$               |
|                             | IRLP   |                           | \$               |
|                             | Beacon/Repeater/Links/ATV Licences   |                           | \$               |
|                             | Other  |                           | \$               |
|                             |  | <b>Total</b>              | \$               |
| <b>Payment</b>              |  |                           |                  |
| Circle one -->              | Cash   | Cheque                    | Internet deposit |
| Invoice/Statement re-quired | Please Advise Treasurer  |                           |                  |
| <b>Internet</b>             | 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 |                           |                  |
| <b>Post</b>                 | The Treasurer, Auckland VHF Group Inc., PO Box 10138, Dominion Road, Auckland 1446.  |                           |                  |
| <b>In Person</b>            | Bring this form and payment to the next club meeting, 2 <sup>nd</sup> 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 2017*

| <b>Repeater frequency<br/>and name</b>      | <b>Repeater<br/>location</b> | <b>Sponsorship<br/>advised for 2017</b> | <b>Amount<br/>paid</b> |
|---|------------------------------|---|------------------------|
| <b>53.725</b> Repeater                      | Klondyke Road                |   |                        |
| <b>144.253</b> Beacon                       | Nihotupu                     |   |                        |
| <b>145.625</b> Data Rptr                    | Klondyke Road                | <b>NON-operational</b>                  |                        |
| <b>145.650</b> Dstar repeater               | Klondyke Road                | ZL1ICU                                  | 50.00                  |
| <b>146.625</b> Repeater                     | Klondyke Road                | ZL1ICU                                  | 50.00                  |
| <b>146.700</b> Repeater                     | Ruaotuwheua                  |   |                        |
| <b>146.900</b> Repeater                     | Mt Puketutu Radio            |   |                        |
| <b>432.253</b> Beacon                       | Nihotupu                     | <b>Under repair</b>                     |                        |
| <b>438.175</b> Dstar repeater               | Klondyke Road                | ZL1ICU                                  | 50.00                  |
| <b>438.500</b> Repeater                     | North Head                   |   |                        |
| <b>439.850</b> Link Tx to Kaimai            | Klondyke Road                |   |                        |
| <b>439.875</b> Ak Nat Sys Rptr              | Klondyke Road                |   |                        |
| <b>439.900</b> Link Tx to Egmont            | Klondyke Road                |   |                        |
| <b>439.950</b> Link Tx to Brynderwyn        | Klondyke Road                |   |                        |
| <b>1291.9</b> Repeater                      | 217 Glenfield Rd             |   |                        |
|   |                              | <b>Total Sponsorship</b>                | <b>\$150.00</b>        |
| <b>NZART Inc: Branch/Personal donations</b> |                              |   |                        |
| <b>Franklin Radio Club. Br: 10</b>          |                              | \$200.00                                |                        |
| <b>Papakura Radio Club. Br: 65</b>          |                              | \$500.00                                |                        |
| <b>Auckland Radio Club. Br: 02</b>          |                              | \$                                      |                        |
| <b>Manukau Radio Club. Br: 21</b>           |                              | \$                                      |                        |
| <b>Martyn Seay ZL3CK donation</b>           |                              | \$                                      |                        |
|   | <b>Donations</b>             | <b>\$700.00</b>                         |                        |
| <b>Current as at 13/02/2017</b>             |                              |   |                        |

*The Auckland VHF Group, Branch 66, would like to thank all those who came forward to sponsor the licence fee for our Beacons, Repeaters or Fixed Links for the year 2017 or donate towards the Group's repeater Operations.*

## 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....





## More from the Trading Table: Surplus filters from analogue TV





## 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 silver 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.

Need Crystals for your next project?

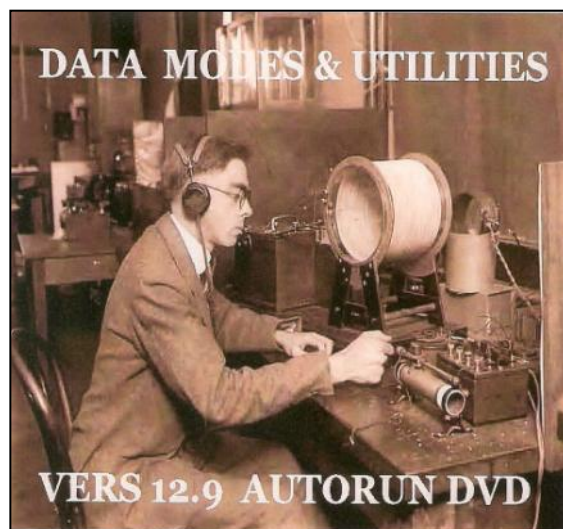
|   |             |
|---|-------------|
| 3.579545 MHz HC18/U wire ended holder                     |             |
| 4.194304 MHz HC18/U wire ended holder                     | \$1.00 each |
| 4.1952 MHz HC18/U wire ended holder                       | \$1.00 each |
| 4.33618 MHz HC18/U wire ended holder                      | \$1.00 each |
| 6.000 MHz HC49/S SMD package 20pF load capacitance        | \$1.00 each |
| 8.000 MHz HC18/U wire ended holder                        | \$1.00 each |
| 8.192 MHz HC18/U wire ended holder                        | \$1.00 each |
| 8.867238 MHz HC18/U wire ended holder                     | \$1.00 each |
| 10.000 MHz HC18/U wire ended holder (KDS Brand)           | \$1.00 each |
| 13.875 MHz HC18/U wire ended holder                       | \$1.00 each |
| 14.31818 MHz HC18/U wire ended holder. Rakon J30G-4H spec | \$2.00 each |
| 14.7456 MHz HC49/S SMD package                            | \$1.00 each |
| 17.472 MHz HC18/U wire ended holder                       | \$1.00 each |
| 18.432 MHz HC18/U wire ended holder                       | \$1.00 each |
| 20.0000 MHz HC49S SMD package P/No.7D20000183BSAF25Q3     | \$1.00 each |
| 24.567 MHz HC18/U wire ended holder                       | \$1.00 each |
| 45.600 MHz HC18/U wire ended holder                       | \$0.50 each |

## Radio Frequency Transistors

|          |  |               |
|----------|--|---------------|
| ATF55143 | Low noise E-PHEMT 0.6dB noise figure.<br>Low noise amp for frequencies between 450MHz<br>and 6GHz. SMD package SOT343 (4 lead).  | \$1.00 each   |
| MGF1302  | Low noise GaAs FET Nf = 1.4dB @ 4GHz, 4dB @ 12GHz.   | \$5.00 each   |
| BFR91    | NS RF Amp. 5GHz 1.9dBnf @ 500MHz   | \$2.00 each   |
| BFY90    | NS 30V 50mA 2.5dBnf @ 200MHz TO72 VHF/UHF  | \$1.50 each   |
| MFE121   | Dual gate N-MOSFET 20V 5mA VHF Amp BF352 equiv.  | \$0.50 each   |
| MPS5179  | NS TO92 12V 50mA 200mW ft 2000MHz Nf 5.0dB   | \$0.50 each   |
|          | RF Transistor. Use in UHF/VHF amplifiers with collector<br>currents in the 100 $\mu$ A to 30 mA range, and in low<br>frequency drift, high output UHF oscillators.               |               |
| BFG67    | NS 8GHz 50mA rf amp/preamp SOT143B package   | \$1.50 each   |
| MPS5172  | NS 25V 100mA Ft 120MHz   | \$0.10 each   |
| MPS6507  | NS, VHF Mixer, 20V, 100mA, Ft 700MHz [data]  | \$0.20 each   |
| MRF237   | NS RF Pwr. VHF 4.0W 12V TO39   | \$3.00 each   |
| MRF559   | NS RF Pwr. 806-960MHz 0.5W 12.5V   | \$0.50 each   |
| MRF904   | NS RF Small signal amp. Ft 4GHz 15V TO206  | \$3.00 each   |
| 2SC908   | NS TO39 RF Amp 1W @ 500MHz 13.6V [data]<br>Designed as driver and RF power amplifier.<br>0.5 to 0.8W output at UHF land mobile band.<br>Gain 15dB (Vce=6.0V, Ic=5mA, ft=2000MHz) | \$1.00 each   |
| 3SK45    | Packaged as ECG221, dual-gate N-channel MOSFET<br>for vhf amp and mixer applications.  | \$0.75 each   |
| 3SK73GR  | Dual-Gate MOSFET N-channel 30V 7mA   | \$1.50 each   |
| 3SK74L   | Dual-Gate MOSFET N-Channel 20V 25mA(max)   | \$1.00 each   |
| 3SK192GR | Dual-Gate MOSFET 15V 30mA(max)   | \$1.00 each   |
| 2SC5488  | NS 30V 70mA low noise rf pre-amp   | \$0.10 each   |
| BF199    | NS 25V 25mA, 500mW ft = 550MHz TO92  | \$1.00 for 10 |
| BF494    | NS 20V 30mA Low noise mix-osc/ IF amp TO-92  | \$1.50 for 10 |
| 40673    | Dual-gate N-Mosfet – See MFE121  | \$0.50 each   |

## DATA MODES & UTILITIES CD

Version 12.09 has even more updates and new programs 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.