Western Suburbs Radio Club Inc.

July 2005 Newsletter

ZL1AC, Branch 03 NZART 3000 Great North Road New Lynn, PO Box 15-122, New Lynn.
President: Andrew Barnett ZL2ALW, Secretary: John Turnwald ZL1JT
Newsletter Editor – John Neill ZL1NE
VHF Club Net Wednesday 07:30pm 146.525 MHz, HF Club Net Fridays 07:30pm 3.623 MHz
Website http://www.qsl.net/zl1ac

Club Calendar

Saturday	9th	July	VK/trans-Tasman 160M Contests: Phone: 2000 to 0200 hrs NZ time
Monday	11th	July	Club Evening – Ken McCormack on DX Contesting Antennas and Elecraft K2 Transceiver
Saturday	23rd	July	VK/trans-Tasman 160M Contests: CW: 2000 to 0200 hrs NZ time
Saturday	30th	July	Waitakere Phone Sprint 100 to 1100 UTC
Saturday	6th	August	Waitakere CW Sprint 100 to 1100
Monday	8th	August	Club Evening – Ian Sangster on the Dayton Ham Fest
Monday	12th	September	Club Evening – Programme to be announced
Saturday	5th	November	Western Suburbs Radio Used Equipment Sale – Rosebank School Avondale
Saturday Sunday	3rd 4th	December	VHF Contest

July Club Evening

This months talk will be given by Ken McCormack, ZL1AIH, from Waimauku, who long ago was member of Branch 03. Ken's main activity is DX contest operation on CW (he was a long time ship's Radio Operator) and he has quite an antenna farm at his property. But his other passion is his home built kitset Communications Wonder-Box HF Transceiver, the Elecraft K2. (he has two of them now!) Ken will demonstrate its facilities and talk on how you build it and test it! The ARRL Lab Report on the kit they built sums it up in "The Elecraft K2 represents a remarkable advance in the level of sophistication and performance available in a build-it-yourself format. Where the K2 shines is its receiver performance. The K2 compares very favourably with the many high end transceivers in the $2000-$3500 price class (in 2000), turning in an impressive 136/97dB figure dynamic range. THIS IS A TALK NOT TO BE MISSED!

August Club Evening

Ian Sangster ZL1RCA will talk to us on a trip he did to the Dayton Ham Fest in the USA. This event is held each year and it covers such a large area that it is difficult to see it all even if you are there for a whole week.

Club Radio Equipment

Western Suburbs Radio Club has a number of HF and VHF radios situated at the clubrooms waiting to be used. To make use of these radios in the Clubrooms contact one of the committee members. If you are unable to set up your own station for any reason then do consider making use of these radios. The club has spent a lot of effort in recent months overhauling the antennae at the club and everything is ready to go. Thanks also to Irving ZL1MO who has recently donated a power supply to run the TS 820 rig that was donated earlier in the year.

At the last committee meeting, discussion centred on filling a few blank spaces on the club walls with additional awards gained by ZL1AC, the club call. Awards such as can be gained by checking in on the awards net on 80 metres. To achieve this we need to have a group regularly using the club radios and collecting counties and postcodes as described in Chapter 6 of the NZART Callbook.

AREC Activities

The club has been tasked with making a Video of AREC activities. Merv ZL1SK is leading this project and he needs your support. We also have help from the local Scout Troop in this task. One of the major filming opportunities will be an AREC training exercise on 17th July 2005. If you are available then please contact Merv to find details. Also to confirm the date.

Ross ZL1VRR has taken on the role of Section Leader and Merv ZL1SK is to be his deputy. At the last club meeting it was decided that all club members were automatically members of the AREC Section and were more than welcome to participate in the activities and training sessions.

ATV Antenna Project

Thanks to Andrew ZL2ALW who invited club members around to his QTH to construct Ch 39 Antennae to receive the Amateur TV signal. There where six members who took advantage of this opportunity and complete an antenna.

What Is A Suitsat?

In late September 2004 the Crew on the International Space Station needed to dispose of an outdated Russian Orlan Spacesuit, by dumping it into space. However at an ARISS (Amateur Radio in Space Station) and Russian team joint meeting, the idea for "Suitsat" was conceived and extensively discussed at the joint AMSAT Symposium/ARISS International Partner meeting in October 2004. The project is being led by two amateurs from RSC Energia in Russia and Lou Mcfadin, W5DID from ARRL.

Since October, the "Suitsat" design concept evolved with tight development time constraints. A joint NASA letter, allowing the ARISS team to proceed was signed on May 10 2005. In just 4 weeks since that date, the US Project team designed, built and tested a simple, yet full featured system that should inspire hams and students world wide.

The "Suitsat" radio equipment coupled with a school artwork DVD project will transmit a variety of special messages and a SSTV image from within the Orlan space suit as it floats around the world in space. The system will allow ground based stations to track and decode the messages, monitor the space suit's telemetry and receive the pre-programmed Slow-scan Image via its specially-built digital voice message system and the amateur radio transmitter. The equipment will run on the space-suit's battery power.

The suit will be deployed from the ISS during an EVA (Spacewalk). Near the end of June, the part of the USA built hardware for the "Suitsat" was delivered to the NASA Johnson Space Centre and NASA will ship this to Energia in Russia, where it will be "space-certified" and integrated with the equipment to go to the ISS on the 19P Progress Launch vehicle in the August/September time frame.

TECHNOTE #16 - WI-FI And 802.11b DEVICES AND OUR HAM BAND.

By Irving Spackman - ZL1MO.

The 802.11b Spread-Spectrum Device Channel Assignments are set down by the Institute of Electronic Engineers (IEEE) in USA. They basically apply here in NZ, as much of the equipment is imported from Asia and USA. They are part of the Non-Licensed equipment which can be used in the 2400-2450 MHz ISM (Industrial, Scientific and Medical) band. We Amateurs are allocated this band, plus 4MHz. from 2396Mhz. which is exclusively Amateur. Note:- Channels 1-8 are in the Amateur ISM allocation. Remember that the 802.11b system is Direct Sequence Spread-Spectrum (DSSS) which extends +- 11MHz. around the 5Mhz. channel centre frequency. So to avoid co-channel interference, two networks need to be separated by 5 Channels. Channels 1 & 6 fall completely within the Amateur band and can be used.

Channel Numbers.	Centre Frequency
1	2412
2	2417
3	2422
4	2427
5	2432
6	2437
7	2442
8	2447
9	2452

10	2457
11	2462
12	2467) For use in Europe only
13	2472)
14	2484 * For use in Japan only.

Our FMTAG Allocation is 2400-2405 Satellites; 2405-2407 Repeater In; 2407-2423 ATV; 2424-2425 data and Narrow Band such as SSB, FM and Beacons; 2425-2427 Repeater out; 2429-2445 ATV.

Note: In our ZL allocation, no provision is made for spread-spectrum communication. The two ATV blocks are 16MHz. wide and would not accommodate the +- 11 MHz. 802.11b device transmissions. However we amateurs could use the commercial equipment with no problem, and that is what is being done all over the place!

What we are finding is there are lots of cordless phones, video extenders and IT equipment links scattered through the amateur allocation, some blocks quite strong enough to raise the noise floor, but this does not cause any inteference - remember this is Spread-Spectrum! Interesting enough, there are some higher power devices being promoted, interfaced with dish or other gain antennas, which are being used for longer range point-to-point services. Such equipment was the subject of a talk at NZART conference in Masterton by Darryl Smith, VK2TDS, entitled "Pre-built high speed communication for Amateurs on 2.4GHz for under $50". (I have this talk and graphics on Power Point for future lectures)

What can we use this equipment for:- The list seems endless!! Typically: Links from work to home for internet access; Monitor equipment and alarms from home at work; Interlinking repeater sites and APRS nodes; Remote control of your home station equipment; Remote control of repeater sites; Linking family locations with full duplex radio links or for Data. Linking AREC Emergency locations; Duplex access to IRLP nodes if no repeater available; Amateur community linking to ECHO-LINK established for retirement villages. The list goes on and on! The advantage is that DSSS is very secure when point-to-point antennas are used with horizontal polarisation. Most Wi-Fi equipment uses Vertical polarisation.

Perhaps Amateur Radio in this Club in 2005 will get a new lease of life experimentally developing this low cost technology!

VK/ Trans-Tasman 160M Contests

Phone: SAT 9th July (next weekend),
CW: SAT 23 July,
Both at 2000 to 0200 hrs NZ time ie: 8pm to 2am (or until 1am if you work 5 hrs).

Bronze Trophy for Over-all Winner (highest score). Laminated Certificates for 1st, 2nd and 3rd, in Phone and CW. Also 1st VK and 1st ZL.

So, get some wire up in the air, and give it a go. (so, maybe do as I do, - just use RCA plugs to attach 20m tails to your 80metre dipole (running in any direction), and connect an ATU).

These Contests are for your enjoyment, but they can only continue if the number of Logs returned makes it viable. This also applies to individual Categories (like CW), which will only survive if the participation warrants it. We need as many ZL prefixes taking part as possible (particularly the elusive ZL3's !) - a ZL6 would be a big help too ! Last year the ZL participation was well down for some unknown reason, and we need to reverse that trend.

New auto-scoring Logging Programs (hopefully now free of bugs), and RULES now on Contest web-site at: http://home.iprimus.com.au/vktasman (with links on NZART, WIA, vkham.com and vk4dx.net contest URL's).

Cheers, Bruce Renn.
VK3JWZ (Contest Manager)

WAITAKERE SPRINTS 2005

The Western Suburbs Radio Club is pleased to announce that the Waitakere Phone Sprint will be held on Saturday July 30th 2005 and the CW Sprint will be on Saturday August 6th 2005 The contests are of one-hour duration on 80m, and are open to all licensed amateurs in ZL, VK and Oceania call areas.

Object of the Sprints
The operator's basic goal in the sprints is to make as many contacts as possible, without duplication, during an hour of operation on a single band. Any contact with ZL, VK or Oceania stations on 80 metres during the contest period can be counted, but a station may be claimed only once.
Eligibility
The Waitakere Sprints are open to all licensed amateurs anywhere in the ZL, VK and Oceania call areas. SWL logs will also be welcome.
Contest Periods
Phone 1000 to 1100 UTC, on July 30th 2005
CW 1000 to 1100 UTC, on Aug 6th 2005
Frequencies
Phone Frequencies between 3.550 to 3.700 may be used.
CW Frequencies between 3.500 to 3.550 may be used.
Power
In fairness and consideration to others, we request that NO LINEAR AMPLIFIERS are to be used in the contest.
Contest call
CQ Sprint, CQ Test or CQ Contest.
Exchanges
Minimum exchange for a valid contact will consist of a serial number, sent and received. The serial numbers must start at 001 and increment by one for each contact made. Note :- Time and signal reports are not required.
Awards
Certificates will be awarded to the overall winner and to the best score in each ZL call area and to the best three scores from VK/Oceania. Other certificates may be awarded at the discretion of WSRC.

SPECIAL AWARDS
To encourage contestants to enter both Sprints we have decided to issue a Special Certificate to the entrant with the Highest combined score. The method of calculation will be: - (Phone points + CW Points) x 2. All logs received will be considered for this award. To qualify for the multiplied points each log must contain a minimum number of valid contacts. ie. Ten (10) for Phone, and Five (5) for CW.

Logs
A separate log must be submitted for each Sprint and must be clearly marked PHONE or CW. Contest logs must show for each contact - Callsign of station worked, serial number sent, serial number received. SWL logs must show both Callsigns in the QSO also both serial numbers.

Logs to be sent to the contest manager: -
Andrew Barnett - ZL2ALW 70 Waima Crescent, Titirangi, Waitakere City, NEW ZEALAND.
Email zl2alw@post.com
Contest Logs to be received by 1st September 2005 for Inclusion
Operator Information
Each log must show the following details.

- Mode
- Callsign
- Name
- Address
- Operating area (eg ZL1, ZL2)
- Total Number of contacts claimed
- A declaration that the operator has abided by the rules and spirit of the contest.

Any entry which is clearly in violation of the rules or spirit of this contest or which contains an excessive number of duplicate contacts (this does not refer to duplicates which have been indicated as such and are not claimed) may be disqualified. The decision of WSRC (Inc) in respect of interpretation of these rules, the granting of awards and disqualifications will be final and no correspondence will be entered into.

Andrew Barnett ZL2ALW Contest Manager WSRC.

Club Nets

VHF Net 146.525 MHz 7:30pm every Wednesday, HF Net 3623 KHz +/- QRM/QRN 7:30pm every Friday. All are welcome to check in on the nets. The HF Net Roster can be found on **http://www.qsl.net/zl1ac/wsrc-hf-roster.html**