

**Christchurch West Amateur
Radio Club Inc.**

Official Newsletter



**Q
T
C
5
6**



What's on at the next meeting?"

**Mike Head, Systems Manager,
Tait Communications Solutions will talk to us
about the new Tait APCO Project 25**

Visitors and guests most welcome

Tuesday 28th July 2009

Visit the Br 56 web page; <www.radioamateurs.org.nz

Christchurch West Amateur Radio Club Inc.

NZART Branch 56

Clubrooms; Auburn Park, Upper Riccarton,

P O Box 31 095, Ilam, Christchurch 8444.

Br 56 web page; <www.radioamateurs.org.nz

<i>Branch Officers</i>			
<i>President</i>	Baden Melhuish	ZL3VI	384 1584
<i>Vice-President</i>	Keith Stanton	ZL3QH	358 4108
<i>Immediate Past Pres</i>	Mark Carshalton	ZL3BA	322 4518
<i>Secretary*</i>	Doug Pratt	ZL2BCF	322 9961
<i>Treasurer</i>	Peter Tyerman	ZL3IA	332 4885
<i>Committee</i>	Brent Officer	ZL3TUI	385 2742
	Mike Barnes	ZL3TMB	352 2294
	Maurice McNab	ZL3MEM	327 3710
	Bruce Smith	ZL3TFM	343 2432
	John Walker	ZL3IB	348 9084
<i>Trustees</i>	Des Borgfeldt	ZL3ACS	980 9705
	Baden Melhuish	ZL3VI	384 1584
<i>Auditor</i>	Roy Timms	ZL3AIB	358 6347
<i>Branch Officials</i>			
<i>Archivist</i>	Roy Timms	ZL3AIB	358 6347
<i>EMC Officer</i>	vacant		
<i>Free n'Easy Coordinator</i>	Graeme Johnstone	ZL3JO	981 5990
<i>Librarian</i>	Ron Rowlands	ZL3AIV	348 2747
<i>Morse Admin</i>	Des Borgfeldt	ZL3ACS	980 9705
<i>Morse coaching</i>	vacant		
<i>Newsletter editor #</i>	John Walker	ZL3IB	348 9084
<i>QSL cards</i>	Keith Stanton	ZL3QH	358 4108
<i>ZL3VV Station Mgr</i>	Maurice McNab	ZL3MEM	354 1958
<i>850 Repeater Mgr</i>	Doug Pratt	ZL2BCF	358 5004

***Please note change of Secretarial email address; <zl2bcf@nzart.org.nz>**
Newsletter editor <john.zl3ib@ihug.co.nz>

Annual subscription for 2009 is due NOW;

Individual \$35.00, Family \$40.00, Junior \$17.50

Treasurer's home address; 37A Penrith Ave, Chch 8002

Subs can be direct credited to our Westpac Account No. 030802 0590356 00

NB. Please ensure your name is against the bank payment.

If cheques are made "non transferable" or "account payee only" please ensure they are made out to "**Christchurch West Amateur Radio Club Inc.**"

The banks will not accept other names (e.g. Branch 56). Thank you

General Meeting of the Christchurch West Amateur Radio Club

Tuesday 23rd June 2009

Present: Baden ZL3VI (Chairman), Doug ZL2BCF (Secretary), 16 members and guests.

Visitors: Tony ZL3HAM and Liz ZL3LIZ

Apologies: Mike ZL3TMB, Graham ZL3SJ and Maurice ZL3MEM.

Minutes: Confirmation of minutes of May 2009 meeting.

Matters arising: John reported that the broken windows had been repaired and a grant application requested prepared for window replacement of \$2500 from the Eureka Trust.

Correspondence

Inward: Newsletters from QTC 28, Hamlarks 05 and Ragchew 68.

Outward: Thank you letter to Jim ZL3QI for donation for a long power cable.

Financial: 38 financial members. Payments; Insurance excess for window repair \$250, Newsletters \$12.40.

Free and Easy report: June meeting was a talk by Bert ZL3ADL and John ZL3IB on radio astronomy; Hubble and Parkes.

Classes Report: Some interest shown recently.

General Business:

- 1 Keith advised that there were QSL cards for members to check
- 2 Tony advised that the Branch 68 mid winter dinner is to be held on the 25th of July at the Garden Hotel 110 Marshlands Rd, all are welcome. \$16.80 and \$13.80 for those 60+.
- 3 The next General meeting is to be a talk by David Head from Tait Electronics on the P25 system.

The formal part of the meeting closed at 1957.

Program

Tony ZL3HAM gave a very good presentation on Kit Building and Homebrew including useful tools and test equipment with a section on how to solder and handle surface mount devices.

The talk concluded with a demonstration of two of the QRP kitsets that Tony has constructed.

EO&E

Whats on at the next meeting ?

Mike Head, Systems Manager, Tait Communications Solutions will talk to us about the new APCO Project 25.

The topics he will cover include:-

- Who is Tait ?
- Development roadmap
- APCO Project 25
- (Long live) analogue radio
- Base station reciter architecture

Mike's talk was originally scheduled for the June meeting but unfortunately he was called away on urgent business. Fortunately Tony ZLHAM kindly stepped into the breach.

Free and Easy

Our meeting on the 10th of June was a shared presentation between John ZL3IB and Bert ZL3ADL. The topic was "The International Year Of Astronomy". This was very well researched and a considerable number of items formed a static display which enhanced the afternoons topic. A Power Point Presentation covered aspects and pictures of the Hubble telescope which were quite spectacular in both variety and colour. I thanked both John and Bert for the great deal of effort which had obviously been put in to make this an enjoyable afternoon, the response from the audience was an indication of their appreciation.

Our guest for the afternoon of the 8th of July is Brian ZL3RJ; he will be showing us his building projects which include receivers, and a Linear amplifier utilising the transformer from a microwave oven as the high voltage source. Brian is well versed in this aspect of our hobby and an interesting and informative afternoon is assured. If you are free that afternoon please come and join us at Auburn Reserve commencing at 1330 hr, everybody most welcome
73s Graeme ZL3JO

HAMADS

For Sale. ICOM IC10 Scanning Communications Receiver & Wideband Handheld for sale. Additional antenna, charger, user and service manuals. VGC. Email or call for full spec. and brochure. New \$800. Reasonable offers sought. David Searle <ZL3DWS@nzart.org.nz>, 03 358 9776

For Sale. Hedge trimmer attachment to fit Black & Decker drill; \$5. Contact John ZL3IB phone 3489 084 or <john.zl3ib@ihug.co.nz >

Wanted. Straight Morse key and oscillator wanted for 81 year old Buildathon "student" who wants to learn Morse code. Can you help? Please call David Searle <ZL3DWS@nzart.org.nz> ph 03 358 9776

HAMADS in QTC56 are a free service to members.
Send to John ZL3IB at < john.zl3ib@ihug.co.nz >.

Mike's Computer Corner.

Ham VoIP modes



Echolink :- This is one of my favourite VoIP modes, as it is so easy to use. You simply download the software from <http://www.echolink.org/> it's under 3Mb so it won't blow your broadband cap. Installing and configuring the software is very easy for any PC user, Setting up your broadband modem to port forward to your PC can be a little difficult, but not impossible! <http://www.portforward.com> is a fantastic site to help you setup your router/modem. On the bright side dial up and broadband users who connect to their router/modem via USB will have no issues. Warehouse Stationary has some really good cheap headsets and mics. You can use the local 438.400Mhz repeater here in Christchurch to test, or even listen and talk without using you computer.



IRLP:- This needs a Linux operating system, and an interface board currently \$188 USD. Best to just use the 145.625MHz repeater, go to my web page <http://www.hamradio.co.nz/> for a printer friendly node list, and use my broadband. For more information check out <http://www.irlp.net/>



CQ100:- This program is the newest on the block, it acts like a virtual HF radio. You tune around a virtual HF environment. This gives you the feeling that you are tuning an HF transceiver. This program offers crystal clear contacts and is a great mode for rag-chewing with fellow hams. The only downside is it's cost at \$32 USD per year to register. But you get a free 90 day trial period to see what it's like. Fire up that computer and register your callsign at <https://qsonet.com/> once registered you can use the program.



eQSO:- This is one of the older VOIP modes, a very basic screen, with limited features. You join a conference server where a number of hams are normally talking about weather and what antenna type is best, something we all need to know ☺ You'll need to listen for a while to understand what the current topic is. Download at <http://www.eqso.net/> another freebee so give it a go!

Non-Ham VoIP modes



Skype:- Is taking the world by storm, this is the most popular internet communications mode for families wanting to keep in contact. This program is ideally suited for people overseas, that want to stay in touch with out paying a teleco a small fortune. It also takes a web camera so you can have a real time video conference with others all over the world. A number of hams use this mode to organise a sked times on the HF bands, or still communicate during poor propagation times. This program is designed for one to one communication using Text, voice or video This is like having a second phone line in the shack, I use it to talk to fellow hams all over the world and locally, it rings on my computer and does not wake my XYL or Baby Sophie which is important for us night owls. Download at <http://www.skype.com>



MSN Messenger:- Another very popular text chat program, this allows you to text chat, share file with anyone on the internet that has downloaded and is running MSN. It offers similar text and file sharing as Skype above, but MSN has been around a lot longer. You'll find a number of people have a MSN or Skype username, us ham usually use our callsigns. Download at <http://webmessenger.msn.com/>

Book review

Radio Nature.

The reception and study of naturally originating radio signals.

by Renato Romero IK1QFK

Published by RSGB, 256 pages softback

Price £stg 13.99 plus p&p, ISBN: 9781-9050-8638-2,

Reviewed by Grahame Fraser ZL3SJ

The natural signals described in this book cover the spectrum from DC to the VLF (3-30 kHz) band. The first chapter is a general introduction to the types of signals which can be observed and classifies them according to frequency ranges (although his definition of bands below 3kHz is different from the ITU standard).

Sources of audio-frequency signals include lightning which causes the familiar static. Lightning also generates “whistlers” which are audio frequency signals sweeping in frequency as they bounce backwards and forwards along the earth’s magnetic field lines. At this point the author introduces the ideas of spectrum analysis which help to identify the natural signals and distinguish them from man-made radiation like mains hum, power-line corona, TV line timebases and various VLF communication transmitters and navigational aids. He refers to spectrum analysis software available on the internet, showing *Spectrogram* and *Spectran* as examples.

Throughout the book there are simple circuits for receiving the signals. In this frequency range both whip and loop antennas can be used. He gives several circuits for receivers which are DC amplifiers with a response well up into the VLF range. Realistic antennas are very much shorter than the radio wavelength so it’s a matter of “the bigger, the better”.

Data is most easily recorded through the computer sound card and saved as audio files. The useable spectrum is therefore limited to what the computer sound card can handle. Sound cards have a sampling frequency of 44 kHz so the upper limit for non-aliased data recording is 22 kHz. Most of the VLF spectrum (3 - 30 kHz) can be recorded. There is no comment on the need for low-pass anti-aliasing filters to suppress signal frequencies above 22 kHz.

Recording of natural events, such as micropulsations and static electric fields in the atmosphere, at frequencies below the sound card limit would require an industrial or scientific data acquisition card. These are expensive but, as the author suggests, there are digital multimeters available with RS232 output for serial port input to a computer. He also mentions the other technique for handling DC – the use of a “chopper” or modulator. The DC signal is used to modulate a carrier which is within the sound card range. Then the original signal can be demodulated with DSP software (not a straightforward process, but workable)

There is a useful non-technical discussion of solar physics, such as sunspots and the solar wind and how they affect VLF radio wave propagation.

The final chapter is “Pseudoscience: what natural origin radio signals are not”; examples being thought transmission, magnetic influences on health, alien signals and voices from the afterlife.

Unfortunately the book doesn’t have an index, which makes it difficult to identify which sections deal with the signals labelled as “whistlers”, “tweaks”, “auroral chorus”, “flying saucers”, “micropulsations”, etc.

The book is a comprehensive discussion of the natural radio signals, of simple equipment for receiving them, techniques methods for recording them as a series of events, and software for calculating their spectrum using computers.

The author has a very interesting web site at <www.vlf.it>

Calendar for 2009

ZL3VV on air; Tuesday evenings, contact Maurice ZL3MEM.

Theory and CW classes, Workshop activities, etc. Wednesdays at 1930 hr when required.

CARDS meeting. 3rd Wednesday; All welcome.

Free & Easy - Second Wednesday at 1330 (1.30pm)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
	11	11	8	13	10	8	12	9	14	11	9

Committee Meeting - Third Tuesday at 1930 (7.30pm)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
	17	17	21	19	16	21	18	15	20	17	

General Meeting - Fourth Tuesday at 1930 (7.30pm)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
26	23	23	27	26	23	28	25	22	27	24	

Free & Easy:

8th July Brian Hutton ZL3RJ; he will be showing us some of his radio building projects.

General Meetings

28th July Mike Head, Systems Manager, Tait Communications Solutions will talk to us about the new Tait APCO Project 25 (This talk was originally scheduled for the June meeting)

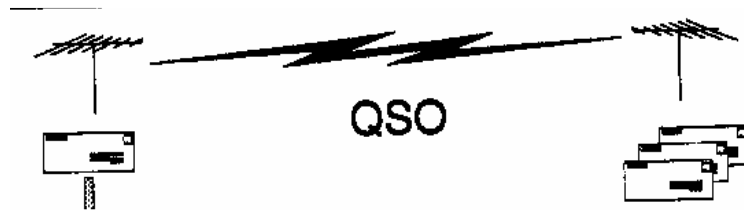
25th Aug David Holland talking about *SYFT*; the company he works for and the technology they develop.

Your committee welcomes suggestions for topics and/or offers of talks for Branch meetings.

Interested in Old Radios?

The Christchurch section of the NZ Vintage Radio Society now meet in our club rooms. Meetings are normally held on alternate months on the first Tuesday of the month. If you are interested please contact Jim Lovell ZL3AGS (ph 342 7760) or David Chapple, email <canda@netaccess.co.nz> for more information.

QTC56



Monthly Newsletter

Christchurch West Amateur Radio Club Inc.

NZART Branch 56