



Ragchew

"The Voice of Branch 68"

June 2017

The North Canterbury Amateur Radio Club Inc.
PO Box 14, Woodend 7641



www.ncarcinc.weebly.com



QTH

Meetings are held at the Woodend Youth Centre, unless otherwise advised.

CLUB CALENDAR

Meetings start at 1930hrs, unless otherwise stated.

Host for June - ZL3HI

June 8 General Meeting - Conference Report & "Using remote SDR links" by Don ZL3DMC

Branch 01 Ashburton

June 12 General Meeting - Host is Tony ZL3HAM

Branch 05 Christchurch

June 7 General Meeting - Conference Report & "CPR & Keeping us Alive in the Shack" by Jane Foley
15 Day Meeting @ 1300hrs

CARDS

June 21 General Meeting

Nets and Frequencies

Canterbury 2M SSB Net 144.200MHz every Tuesday from 2000hrs (vertical polarisation)

Canterbury 6M Net 3850 6M Repeater Thursdays from 2000hrs (vertical polarisation)

Canterbury Area Net 5625 Repeater, 2000hrs on Sundays

National Broadcast last Sunday of the month at 2000hrs on 3.900MHz, National System, 6975 and 705 Repeaters

*Secretary: Colin Rowe ZL3COL Phone 03 313 2303 Email: colingr@xtra.co.nz
Editor: Tony Buckland ZL3HAM Phone 03 312 5352 Email: zl3ham@scorch.co.nz*

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President's Report

First a plea to the membership. This will be the last issue of Ragchew edited by Tony ZL3HAM. Tony has edited the Ragchew for a total of 12 years and has done a sterling job, but now we need a replacement. This doesn't need to be a committee position and only requires a couple of hours per month. All of our current committee have commitments that prevents them taking on the role. We are hoping a member can step up to this role. Please get in touch with either Tony or myself if you are willing.

The club has acquired a TS2000 radio and other equipment from branch 56 going into recess. This radio will be used to reinstate our "shack" and in the future I will set up a contest station to introduce members to this exciting side of amateur radio.

Conference is coming up next week, and I'll be off to Rotorua on Thursday. I'm looking forward to catching up with old friends and meeting some new ones.

On a more personal front more antenna building will be taking place as I'm getting a newly licensed amateur into the joys of HF operating. So hopefully by the end of the weekend we'll have another voice on the HF airwaves.

73 Don ZL3DMC

Ragchew Editor

After nearly 12 years total in the roll of Ragchew Editor I've decided to step aside and give someone else the opportunity to shine and put their mark on our newsletter.

Tony ZL3HAM

AREC Report

Nothing to report this month.

Don ZL3DMC/ZK9EG

**Geoff ZL3QR
Dep. S/L.**

Repeater Reports



Mt. Noble 6975

Mount Noble still trucking along at this stage but may drop off a little as Winter sets in.

Mike ZL3AKZ

Mt. Grey 675

The repeater is working well with no known issues.

Geoff ZL3QR



WSPR - Distant Whispers

One of the things that makes communicating with amateur radio more fun than using the Internet or the phone is that you never know where your signals will be received. Short wave radio propagation is never completely predictable, and can often surprise you. If this is an aspect of radio that fascinates you, then you'll enjoy using WSPR.

WSPR is a piece of software that enables you to participate in a world-wide network of low power propagation beacons. It enables your radio transceiver to transmit beacon signals, and to receive beacon signals from similarly-equipped stations in the same amateur band. Because participating stations usually upload spots that they receive in real time to a [web server](#), you can find out within seconds of the end of each transmission exactly where and how strongly it was received, and even view the propagation paths on a map.



If you left WSPR running while you were doing something else, you can also search the database to find out later where your signals were received during the day. You can analyze past signal reports to see the effect of seasonal propagation changes or antenna improvements.

What is WSPR?

WSPR stands for **Weak Signal Propagation Reporter**, but it's pronounced "Whisper" - quite an appropriate name as it is all about sending and receiving signals that are barely audible.

WSPR is a software application written by [Joe Taylor, K1JT](#), a Nobel Prize-winning Princeton physicist. It was first released in April 2008. It uses a transmission mode called MEPT-JT. The "JT" stands for Joe Taylor, while MEPT stands for **Manned Experimental Propagation Transmitter**.

MEPT is not something specific to WSPR. MEPTs are very often simple home-built QRP transmitters that send beacon messages using very low-speed Morse (QRSS). Their very weak signals are copied visually using software called a "grabber" - a horizontal waterfall display capable of detecting and highlighting signals well below the noise threshold. The content of a transmission is determined - as with many other weak-signal QRSS modes such as EME (moonbounce) - by literally reading the dots and dashes as they are displayed on the waterfall.

The "manned" aspect of MEPT simply relates to the operator's license conditions. It is not necessary to obtain a special dispensation to operate a MEPT station because you are present while it is in use, just as you would be when using CW, SSB or another data mode. In fact, some MEPT enthusiasts discourage the use of the term "beacon" because beacon operation without a special permit is prohibited by some licensing authorities.

Once set up, operation of WSPR is completely automated. The software logs every transmission you make, as well as all the "spots" (decoded MEPT-JT signals) received. So this is something you can do when you are otherwise engaged and not able to get on the air and make normal QSOs. Just how "hands-on" you need to be when operating WSPR is a matter between you, your license authority and your conscience, but some people leave their WSPR beacons running 24/7 and some of that time, one assumes, they must be asleep.

Principles of operation

WSPR itself does not use slow Morse. The signal is frequency shift keying (FSK) with a very small shift and a very slow rate. In fact, some people have mistakenly thought that the software wasn't working because they listened to the signal and heard what sounded like a pure tone, with no modulation at all. The bandwidth occupied is only about 6 Hz, so many stations can operate within the 200Hz WSPR window without interference.

Each MEPT-JT transmission lasts for just under two minutes, and starts at the beginning of each even-numbered minute. It is important that transmitters and receivers are in sync, so one of the fundamental pre-requisites of success with WSPR is an accurately-set computer clock.

The beacon transmission contains the transmitter's callsign, locator and power (in dBm.) The data is encoded to reduce the number of data bits needed, with the result that only standard callsigns can be used - no prefixes, suffixes or special calls. Forward error correction is used to improve the chances of copy even under adverse conditions while eliminating false "spots".

The WSPR software incorporates both a receiver/decoder as well as a transmitter. How much transmitting you decide to do is up to you. It is not necessary to transmit at all, so this is an activity that even SWLs can participate in - and many do. Most operators set the software to transmit once in every four or five two-minute segments. This is a random probability, so that two stations which start off at the same time with the same probability will not always transmit in the same segment.

Syncing the clock

As mentioned earlier, it is vitally important that your computer clock is accurate, as this governs when WSPR starts each transmit or receive period, and nothing will be decoded if your clock is more than a couple of seconds out.

If you are using Windows XP, open the **Date and Time** window in Control Panel and select the **Internet Time** tab. There, you should see an option to synchronize the clock using an Internet time server, **time.windows.com**. Select this option, and do an immediate sync to see if it works.

If you have a radio-controlled clock or a GPS you can compare your computer clock with it to see how accurate it is. Do this every day over a period of a week. Windows only synchronizes the clock with the time server once per week, and many computer clocks drift several seconds per day which is just not good enough for this application. If you need to make Windows synchronize more often then [here is a link to a utility \(untested by me\) that allows you to change the time sync interval](#). Alternatively if you have a permanent Internet connection you can disable the Windows time synchronization altogether and use [NTP for Windows](#).

<http://www.g4ilo.com/wspr.html>

<p><i>Man Up & Get Checked!</i></p>	 <p>Prostate Cancer Foundation of New Zealand</p>	<p>PHONE 0800 477 678 EMAIL info@prostate.org.nz WEB www.prostate.org.nz</p>
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June Meeting

This month we have we have Conference Report followed by Don ZL3DMC talking about using remote SDR links, this is ideal for those who don't have HF antennas or are in a high noise environment.



****June Happy Birthday's****

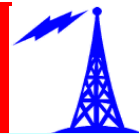
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CALENDAR for 2017

General Meeting - Second Thursday at 1930 (7.30pm)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-					8	13	10	14	12	9	7

Committee Meeting - Fourth Thursday at 1930 (7.30pm)

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

Branch 68 Marketplace

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Enquiries to Denise ZL3HI, phone (03) 313 4907

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