



# Western Suburbs Radio Club Inc.

## August 2006 Newsletter

ZL1AC, Branch 03 NZART 3000 Great North Road New Lynn, PO Box 15-122, New Lynn.

President: Andrew Barnett ZL2ALW, Secretary: Ross Reddell ZL1VRR

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

Monday	14 <sup>th</sup>	August	Club Meeting - Programme to be announced.
Thursday	17 <sup>th</sup>	August	AREC Section Leaders Meeting Branch 03
Saturday	26 <sup>th</sup>	August	Hamilton Amateur Radio Club Market Day Claudelands. Vendors 8am Buyers 10am
Tuesday	29 <sup>th</sup>	August	Regional Coordinating Meeting at Branch 29, 400 East Coast Road, at 7:30pm
Monday	30 <sup>th</sup>	October	AREC Meeting at 7:30pm

### August Club Meeting

Programme to be announced.

### July Club Meeting

Merv ZL1SK explained the requirements in setting up our ATV Television Studio. We also discussed the development of the studio and the purchase of an amateur TV Transmitter.

### Waitakere Sprint 2006

The Waitakere Phone and CW sprints have been and gone. Logs are to be returned, no latter than September 1st to either web address [watakeresprint@yahoo.com](mailto:watakeresprint@yahoo.com) or Post to **WSRC(inc) P.O. Box 15-122 New Lynn Auckland 1007 New Zealand**. The Logs are to be submitted in plain text only; nothing else will be accepted and will be rejected. Logs arriving latter that the 1st September 2006 will not be counted. Results will be available by the 2<sup>nd</sup> week of September 2006. Certificates will be posted out to the winner's of each section.

### 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>.

4-Aug-06	ZL1ACZ	Barry
11-Aug-06	ZL1WI	Roy
18-Aug-06	ZL1VRR	Ross
25-Aug-06	ZL1MW	Brian
1-Sep-06	ZL1JL	John
8-Sep-06	ZL1NE	John
15-Sep-06	ZL1ACZ	Barry
22-Sep-06	ZL1WI	Roy
29-Sep-06	ZL1VRR	Ross

## **Club Fees**

These are now due. The fees are the same as last year at \$25.00 per member and special rates for families. Fees may be paid to the treasurer at any club night or by post to **PO Box 15-122, New Lynn**. An invoice is included with this Newsletter if your fees are still outstanding.

## **AREC**

That there will be a Section Leaders meeting at our club rooms on Thursday 17th August at 1930 hrs I would like to see as many of the section there as possible if you can make it. All club members are welcome to attend this meeting

Ross ZL1EK / VRR WSRC Section Leader

## **Free To A Good Home**

Roy, ZL1WI, has a couple of items that he is keen to move on to a good home. He can be contacted on ph 814 9550.

- Analogue Scales 0 to 8 kg. No longer certified.
- 7 metres of 100mm drainage pipe.

## **FCC Sets New Standards for Amateur Voice Communication**

Washington, DC

The FCC today took what they described as an important new step to reduce QRM on amateur frequencies by setting standards for voice speeds. The docket #200-4U will become official in the Part 97 amateur regulations effective April 1, 2007.

Citing frequent complaints about "long, boring conversations" on the ham bands, especially 75 meters, the Commission moved to impose a new standard on voice operations requiring all conversations to be at a speed of "at least 200 spoken words-per-minute". The Commission in its ruling was especially critical of what they called "long winded, often endless conversations by old men talking about their prostate problems and other needs to get up and go to the bathroom several times during the night".

FCC staffers say they have personally heard conversations about nothing that went for hours and tied up frequencies that could be used by faster talkers. Official Observer stations have received instructions to listen to suspect conversations and count the number of words-per-minute spoken. Those QSO's which fail to meet the minimum speed requirements will be noted and the operators involved will receive Official Observer Advisory Notices encouraging them to follow the rules or risk receiving notice of apparent violation citations from the FCC.

Some hams in southern states complained the new regulation will impose a burden on them because they naturally talk more slowly than those up north. They are suggesting that frequencies be set aside for slow speed discussions concerning favourite country music artists (particularly Don Williams), NASCAR, huntin' and feeshin' (particularly bass and brim). FCC says it may consider that in future rule making.

In a separate press release, the American Radio Relay League said they are also concerned about two-metre operation where little is discussed except "full quieting and items to be picked up on the way home". The League said that sort of thing is boring and is usually spoken very slowly as well, far below the 200 words-per-minute minimum. The League suggested conversations on how to help raise more money for League activities would be especially welcomed and will be encouraged. Future issues of QST will contain special pull-out sections containing recommended topics for on-air discussion to brighten up QSOs.

## **Here's something DXers might find useful:**

"SPRAT" - the G-QRP Club mag, reports that a new website called "Parlez Vous QSO?" (oui - bien sur mon amis!) is now up and running. It has more than 100 common English "QSO" phrases translated into German, Spanish, French, Italian, Dutch, Polish and Hungarian, with more being added.

Individual downloadable Word files contain each language set. It's primarily aimed at CW and digital mode operators to obviate pronunciation difficulties. There aren't, for example, any tips on how to pronounce the alphabet or numbers - that's clearly not the aim. Hence, the English for 80 would be shown numerically in French as 80 – not "quite vingt", or 35 kms would be 35 kms - not "trente cinq" kms, as would be needed for a voice QSO.

Certainly it has all that anyone needs for CW operation - terms for WX, QTH, distances, family members, and useful phrases such as "I live in (wherever)", "which is a village/town/city between A & B". There aren't any amateur radio colloquialisms - just plain language. There are files for each language containing etiquette, (such as when to say vous/tu in French), special characters, links to on-line dictionaries and much more.

The language files have been meticulously checked by native speakers, and the site author, Steve, M0ECS, says that it's a work of true co-operation in the spirit of amateur radio, with more than a dozen amateurs from eight countries involved in the project.

The website contains no pop-ups or adverts - just the language files can be found at <http://web.onetel.com/~stephenseabrook/>

If you cut and paste the above link into your browser it will work.  
From David, G4EBT @ GB7FCR via Packet Radio

## **Oliver Heaviside: Someone We All Should Know**

*By James H. Seaton, W1FWE*

*August 3, 2006*

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*Although not as well known as his contemporaries, Oliver W. Heaviside is present in everything we do in Amateur Radio. He was a man who defined terms that we as ham radio operators toss about, and changed the face of mathematics and science for years to come.*

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I'll bet you would like to meet the man who gave us such electrical terms as [electret](#), [inductance](#), [reluctance](#), [conductance](#), [impedance](#), permittance (later called [susceptance](#)) and permeability admittance.

[Oliver W. Heaviside](#) is gone now, but I ran across an interesting article about him in the June 1990 issue of [Scientific American](#) by P. J. Nahan. Heaviside was born on May 18, 1850, in Camdentown, a section of London, England. Interestingly, he was a nephew of the famous [Charles Wheatstone](#), of the Wheatstone (electrical) Bridge fame.

Unfortunately, Heaviside came down with scarlet fever, leaving him partially deaf. Even with this handicap, he became a good telegraph operator while quite young, just as [Thomas Edison](#) had been, again with the same basic handicap! As a schoolboy, Heaviside was good in everything except geometry, which he failed. He quit school at age 16 because of this one embarrassing failure.

### **A Mathematics Pioneer**

Although he did not have a university education, Heaviside studied mathematics on his own. Eventually this mathematical curiosity led him to the study of [Maxwell's Equations](#), which had become the latest rage. In fact, he spent over three years studying them.

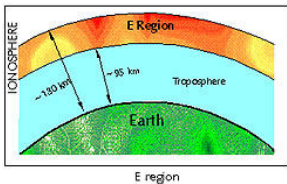
As presented by [James Clerk Maxwell](#), those equations consisted of 20 equations in 20 unknowns. This was because Maxwell presented each component of each vector or force. Working full time between 1886 and 1889, Heaviside managed to reduce Maxwell's original work down to just the four equations we commonly see today in textbooks. As a result of this gigantic work (1891), he was elected as "Fellow" of the [Royal Society \(FRS\)](#), quite a prestigious award for a high school drop-out!



**Oliver W. Heaviside, 1850-1925**



**Heaviside with his bike, ca 1900.**



**A portion of the ionosphere, the E layer, is also called the Heaviside layer. It is between approximately 95 and 130 kilometers above the surface of the Earth, between the D and F layers. Heaviside is credited with predicting its existence.**

total poverty and as a recluse. So you can clearly see that as we tinker with our electrical circuits today, we have a lot of thanks to give to a not-so-famous electrical wizard, Oliver Heaviside.

During this period, Heaviside also adapted complex numbers for use in electric circuits, as well as developed techniques for applying [Laplace Transforms](#) for the solution of [differential equations](#).

Although Heaviside reformulated Maxwell's Equations in terms of electric and magnetic forces and energy flux/flow, his explanation turned out to be not quite as "clear" as was that of the famous scientist [Heinrich Hertz](#); however, in small print Hertz admitted that his ideas came from Oliver Heaviside.

### **Algebra is "Simple"**

Along the way, Heaviside co-invented vector analysis calculus. He also formulated the "operator" method for use in linear differential equations. He even replaced the differential operator ( $d/dx$ ) by a new variable ( $p$ ), transforming a differential equation into an algebraic equation, which is much easier to solve. This simple solution to an algebraic equation can then be transformed back into a differential equation solution by using "tables of conversion," which are already worked out. He thus allowed us to solve difficult differential equations through the use of easier algebraic methods. Along the way, he also "coined" all those electrical terms we still use today.

In 1902, he predicted a "layer" of the earth's atmosphere could refract radio waves. We now call this layer the [ionosphere](#). His prediction neatly explained how [Marconi](#) had famously managed to send the first ever radio signal across the Atlantic Ocean the previous year. For years, this ionized layer in our atmosphere was called the "[Heaviside Layer](#)." Its existence and predicted ability to refract certain high frequencies was finally proven in 1924, just one year before his death in 1925.

### **Famous and Not-so-Famous "Electrical Wizards"**

Heaviside was never quite accepted by polite society, however, as he evidently was prone to some anti-social behaviour. He was reportedly hard to get along with, and would typically tell co-workers off if they could not understand him. This perhaps partially explains why the name Oliver W. Heaviside is not as commonly known today as some other "electrical wizards" of the period.

For his work, Oliver Heaviside was presented the very first [Faraday Medal](#). But sadly, on February 3, 1925, he died in Paignton, Devon, England, in

### **MR. OLIVER HEAVISIDE.**

#### **ELECTRIC WAVE THEORY.**

A mathematical thinker whose work long failed to secure the recognition its brilliance deserved is removed by the death of Mr. Oliver Heaviside, F.R.S., which is announced on another page.

Born in London on May 13, 1850, Mr. Heaviside was for a few years in the employment of the Great Northern Telegraph Company at Newcastle-on-Tyne, but after 1874 he lived in retirement in Devonshire, where he devoted himself to studying and interpreting Clerk Maxwell's theory of electromagnetic radiation and to showing how it can be applied to the solution of the problems of practical telegraphy and telephony whether with or without wires. In particular long-distance telephony owes much to his labours. In a long line the electric waves that represent sound waves set up by a speaker in the transmitter are of different lengths and do not travel all at the same speed: in consequence the wave-form is distorted in its progress, and the sounds to which it gives rise in the receiver on arrival may not be an intelligible representation of those which produced it in the transmitter.

**A copy of [Heaviside's obituary](#) that appeared in *The London Times*.**