

# Ham Hum

August 2009



The official newsletter of  
The Hamilton Amateur Radio Club (Inc.)  
Branch 12 of NZART - ZL1UX  
Active in Hamilton since 1923



## Next General Meeting

19th August : Murray Greenman

## High Stability and Precision Oscillators

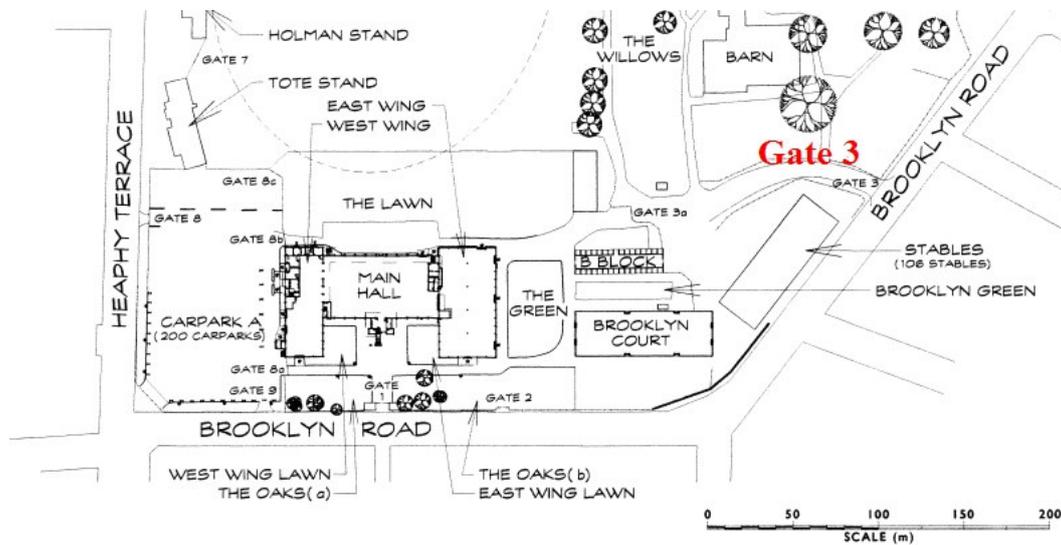
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## From the Committee and/or Editor

The main event for August is the Hamilton Market Day. 15th August at the Claudelands Event Centre using the Main Hall area. Due to demolition and construction work we will use Gate 3 off Brooklyn Road to access the hall.



The AREC section of the newsletter has been changed to match what our Section Leader has done on the AREC section of our website <http://z11ux.tripod.com/eventops.htm>

## Next Committee Meetings - 5th August & 2nd September

## **SB PROP ARL ARLP030**

### **ARLP030 Propagation de K7RA**

No new sunspots yet, but a big surprise this week with aurora and a geomagnetic storm. The activity peaked around 0300-0900z on Wednesday July 22, with K index as high as 6. Planetary A index for the day was 24. You can see the K index variation at <http://www.swpc.noaa.gov/ftpdir/indices/DGD.txt>. One nice result was aurora propagation on six meters.

A week ago there wasn't any indicator of increased activity. If you go to <http://www.swpc.noaa.gov/ftpmenu/forecasts/45DF.html> and click on July 21, you can see that the forecast was modified more than once, but the highest forecast was an A index of only 15.

KN5O and N5OMG in Louisiana both worked JA7QVI on six meters on June 17. KN5O worked him at 2359z, and 30 minutes later reported that the JA7QVI signal was still holding steady at S2. This was on a Friday, five days before the aurora.

Patrick Hamel, W5THT in Mississippi on July 17 noted that July propagation on six meters is some of the best he has ever experienced. He wonders if the volcano erupting on Sarychev Peak on Matua Island is spewing conductive ash, possibly reflecting radio waves. I don't know if that is true or not, but at <http://www.dailymail.co.uk/sciencetech/article-1195215/> you can see dramatic photos of the eruption.

There is a new sunspot trying to emerge today, but it looks to be from old cycle 23. For more information concerning radio propagation, see the ARRL Technical Information Service at <http://www.arrl.org/tis/info/propagation.html>. For a detailed explanation of the numbers used in this bulletin, see <http://www.arrl.org/tis/info/k9la-prop.html>. An archive of past propagation bulletins is at <http://www.arrl.org/w1aw/prop/>.

Monthly propagation charts between four USA regions and twelve overseas locations are at <http://www.arrl.org/qst/propcharts/>.

Sunspot numbers for July 16 through 22 were 0, 0, 0, 0, 0, 0, and 0 with a mean of 0. 10.7 cm flux was 66.7, 66.2, 67, 67.6, 68.2, 67.7, and 67.8 with a mean of 67.3. Estimated planetary A indices were 4, 2, 3, 2, 6, 4 and 24 with a mean of 6.4. Estimated mid-latitude A indices were 2, 0, 1, 1, 3, 3 and 18 with a mean of 4.

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## Internet Links

New Zealand Amateurs on YouTube :-

<http://www.youtube.com/user/ZL1DK>

<http://www.youtube.com/user/zl1steve>

<http://www.youtube.com/user/zl4aa>

<http://www.youtube.com/user/ZLjedanSLO>

<http://www.youtube.com/user/jashoon>

<http://www.youtube.com/user/zl2cwa>

If you would like to add something that you've found on the internet to be useful, informative, or just plain funny, send it to me at [zl1dgk@nzart.org.nz](mailto:zl1dgk@nzart.org.nz)

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## Sky UHF to cease

In 1995, Sky had 300,000 subscribers to its UHF service. That figure now sits around 25,000. However, at the end of August, those UHF subscribers are going to either have to shift to the satellite platform or go without as Sky flicks the switch on the ailing service.

The interesting part of this switch off is that sky is planning on handing its UHF spectrum back to the government in a trade for digital terrestrial bandwidth. One would have to assume that that would mean Prime would finally be making it onto Freeview.

If you're one of the 25,000 who still have a Sky UHF subscription, you can get set up on Sky Digital with the install fee waived.

-Throng

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## KiwiSAT Planned Operating Frequencies

Linear Transponder Downlink :

Frequency: 145.850 MHz to 145.880 MHz.

Output Power: 2 Watts PEP.

Radiated Power: 2 Watts (+33dBm) EIRP PEP.

Bandwidth: 30 KHz. Emission Type: Depends on Uplink: CW, SSB etc.

Antenna pattern: Omni directional in all planes.



Linear Transponder Uplink 1 :

Frequency: 435.260 MHz to 435.230 (Inverting Transponder).

Bandwidth: 30 KHz.

Noise temperature: 273 degrees K.

Emission Type: typically CW, SSB.

Antenna Pattern: Quarter wave whip on +Z face (Omni in X-Y plane, Null in +Z and -Z direction).



Linear Transponder Uplink 2 :

Frequency: 1268.880 to 1268.850 (Inverting Transponder)

Bandwidth: 30 KHz.

Noise temperature: 273 degrees K.

Emission Type: typically CW, SSB.

Antenna Pattern: 4 Dipole array (Omni in X-Y plane, +3 dBi Gain in +Z and -Z di-

rection).

FM and Data Transmitter :

Frequency: 145.865 MHz.

Output Power: 1 Watt.

Radiated Power: 1 Watt (+30dBm) EIRP.

Bandwidth: 20 KHz.

Emission Type: 9600 bps data (G3RUH Packet standard) Telemetry and Data (various modes) scheduled with FM Voice or 1200 bps AFSK packet telemetry.

Antenna pattern: Omni directional in all planes.

FM Receiver Uplink 1 :

Frequency: 435.245 MHz.

Bandwidth: 20 KHz.

Noise temperature: 273 degrees K.

Emission Type: 9600 bps data, FM Voice,

Antenna Pattern: Quarter wave whip on +Z face (Omni in X-Y plane, Null in +Z and -Z direction).

FM Receiver Uplink 2 :

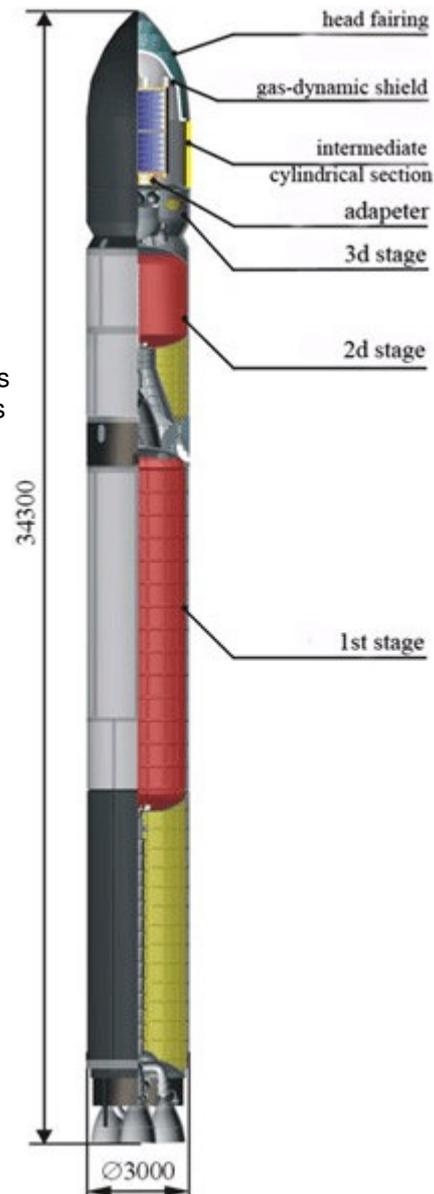
Frequency: 1268.865 MHz.

Bandwidth: 20 KHz.

Noise temperature: 273 degrees K.

Emission Type: 9600 bps data, FM Voice,

Antenna Pattern: 4 Dipole array (Omni in X-Y plane, +3 dBi Gain in +Z and -Z direction).



Beacons :

Beacon 1 :

CW Beacon Attached to Linear Transponder:

Frequency: 145.885 MHz.

Emission Type: CW standard Morse code.

Power: 50 mW (+17 dBm) EIRP

Beacon 2 (Data Beacon):

Frequency: 145.865 MHz.

Output Power: 1 Watt.

Radiated Power: 1 Watt (+30 dBm) EIRP.

Bandwidth: 20 KHz.

Emission Type: 9600 bps data (G3RUH Packet standard)  
scheduled with 1200 bps AFSK packet telemetry.

Beacon 3 (UHF Beacon):

Frequency: 437.425 MHz.

Bandwidth: 20 KHz.

Emission Type: 9600 bps data (G3RUH Packet standard).

Radiated Power: 100 mW (+20 dBm) EIRP.

Antenna pattern: Quarter wave whip on -Z face. (Omni in X-Y plane, Null in +Z and -Z direction).

## WRC-11 IS NOW WRC-12



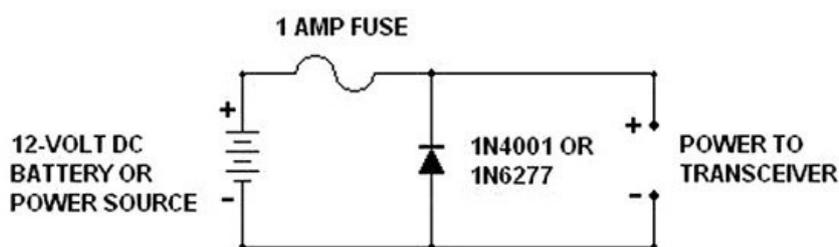
The ITU Council, the 46-nation administrative oversight body of the International Telecommunication Union (ITU), has agreed to move the next World Radiocommunication Conference (WRC) to 2012. Originally scheduled for October 24-November 18, 2011 in Geneva, Switzerland, the Council has proposed January 23-February 17 as the new dates <[http://www.itu.int/dms\\_pub/itu-r/oth/0C/04/R0C040000030001PDFE.pdf](http://www.itu.int/dms_pub/itu-r/oth/0C/04/R0C040000030001PDFE.pdf)>.

According to ARRL Technical Relations Manager Brennan Price, N4QX, the full ITU membership is now being consulted on the dates; responses are due by August 3. "The ITU Council had previously proposed dates for fall 2011, but various scheduling conflicts and the lack of available facilities during some weeks made this schedule impractical," he said.

Held approximately every three years, these periodic conferences of the Member States of the ITU consider allocations to the various radio services -- including the Amateur Radio Service -- and evaluate what new technologies and applications should be addressed by future conferences.

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## REVERSE POLARITY PROTECTION



**NOTE:** Depending on your power needs, a 1-amp fuse is adequate to support simple low-power, trail-friendly stations drawing less than 1 ampere. For more sophisticated field stations drawing higher current, increase the fuse rating as needed.

## Upcoming Happenings & Events

<i>Date</i>	<i>Happenings &amp; Events</i>
<b>1st August</b>	<b>Waitakere Sprints (CW)</b>
<b>1-2 August</b>	<b>Brass Monkey Contest</b>
3rd August	HF Net, 3.575 MHz, 19:30
4th August	VHF Net, 146.525 MHz, 20:00
<b>5th August</b>	<b>Committee Meeting</b>
<b>8th August</b>	<b>Boat Anchor Sprint</b>
<b>9th August</b>	<b>NZART HQ Info-Line</b>
10th August	HF Net, 3.575 MHz, 19:30
11th August	VHF Net, 146.525 MHz, 20:00
<b>15th August</b>	<b>Hamilton Market Day</b>
<b>15-16 August</b>	<b>Lighthouse Weekend - ILLW</b>
17th August	HF Net, 3.575 MHz, 19:30
18th August	VHF Net, 146.525 MHz, 20:00
<b>19th August</b>	<b>General Meeting—ZL1BPU</b>
<b>22nd August</b>	<b>Possum Bourne Memorial Rally (AREC)</b>
<b>23rd August</b>	<b>NZART HQ Info-Line</b>
24th August	HF Net, 3.575 MHz, 19:30
25th August	VHF Net, 146.525 MHz, 20:00
<b>30th August</b>	<b>NZART Official Broadcast</b>

**6th September—NZART HQ Info-Line**  
**7th September—NZART Doug Gorman Frequency Measuring Contest**  
**10th September—Break-In copy due**  
**12th September—eDay (electronic waste)**  
**12th September—Nostalgia Night**  
**13th September—Kairangi Hill Climb (AREC)**  
**20th September—NZART HQ Info-Line**  
**27th September—NZART Official Broadcast**  
**30th September—AREC Section meeting (AREC)**  
**3rd October—Manawatu Table Sale**  
**3-4 October—Microwave Contest**  
**3-4 October—Oceania Contest (Phone)**  
**4th October—NZART HQ Info-Line**  
**10th October—Western Suburbs Junk Sale**  
**10-11 October—Oceania Contest (CW)**  
**11-17 October—"GET READY GET THRU" Disaster Awareness Week**  
**12-16 October—14th IARU R3 Conference (Christchurch)**  
**17-18 October—JOTA/JOTI**  
**17-19 October—Admin Council of IARU (Christchurch)**  
**18th October—NZART HQ Info-Line**  
**25th October—NZART Official Broadcast**  
**31st Oct-1st Nov—Bridge to Bridge (AREC)**  
**November—GlobalSET Exercise**  
**21st November—NI Secondary Schools Cycle Championship (AREC)**



**Annual Market Day**  
**Gate 3, Claudelands Event**  
**Centre**  
**Saturday August 15th 2009**

Vendors from 8:00am

Buyers (free entry) from 10:00am

Refreshments available, Ample free parking on site,  
WARO meeting

**An excellent chance for bargain hunting  
and social time with fellow Amateurs in  
the Waikato and surrounding areas.**

All Enquiries to :

[harcmday@nzart.org.nz](mailto:harcmday@nzart.org.nz)

## Hamilton AREC Section News

July has been exciting. We took our “new” 2M STSP for a “walk” on the weekend of the 4<sup>th</sup> and 5<sup>th</sup>. It was used in the North Island Secondary Schools Cycle Championships and located at Jim’s (ZL1BOS) place behind Taupiri. The event was a good event and we will have another event with this group on November 21.

**Handhelds and other equipment** will now only be signed out to individuals prior to an event and MUST now be returned BY the same person who signed the equipment out. A Charger for one of the handhelds was not in the case for the Cycle event. This has meant that this new policy has been introduced. This charger may not be lost, as at the time of writing, there has been no search for it.



**New STSP:** The frequency for the new 2M STSP is 146.675MHz with a negative split. Please change your VHF equipment to this frequency. The 5325 from the old STSP is going to be operating as a fixed licensed repeater from the clubrooms shortly. We already have the license for this repeater as a legacy from the old STSP and licensing system.

**Possum Bourne Rally:** I have given Auckland Section permission to set up some radio gear in our rooms for the Possum Bourne Rally.

**Upcoming Events:** These are listed in a number of places. **Ham Hum** has a list of Events and Operators, the **White Board** at the clubrooms and the **Club Internet Site** (<http://zl1ux.tripod.com/eventops.htm>). It is “first in – first served” to the “desirable positions”, so get in while the going is good.

That’s it for this month

Tony Case – ZL1UD/ZK1EC

Section Leader

## AREC Event Operators Page

<b>Possum Bourne Rally</b>	<b>Saturday 22nd August 2009</b>	<b>Organiser : ZL1DK</b>
Please contact the <a href="#">Section Leader</a> with your team information and he will pass it on to Auckland.		

<b>Rollo's Marine Bridge to Bridge Water-Ski Race</b>	<b>Saturday 31st October and Sunday 1st November 2009</b>	<b>Organiser : ZL1UPJ</b>
<b><u>Position</u></b>	<b><u>Saturday Operator</u></b>	<b><u>Sunday Operator</u></b>
<b>Base</b>	ZL1PK, ZL1GWP & ZL4QJ	ZL1PK, ZL1GWP & ZL4QJ
<b>Start Boat</b>	ZL1DK	ZL1DK
<b>Rescue Boat</b>		
<b>X-Band</b>		ZL1UD
<b>A.</b>	Ngaruawahia/Taupiri	
	Start/Finish at Point	ZL1IC
<b>B.</b>	Ngaruawahia Ramp	
	ZL1LD	ZL1LD
<b>C.</b>	Ngaruawahia W/S	
<b>D.</b>	Horotiu	
<b>E.</b>	Pukete Ramp	
<b>F.</b>	Days Park	ZL2MGS
<b>G.</b>	Fairfield Bridge	ZL1TCE
<b>H.</b>	Malcolm St	
<b>I.</b>	Narows	
<b>J.</b>	Field Days	
<b>K.</b>	Between Pipe and F/Days	
<b>L.</b>	High Level Bridge	

<b>Kairangi Hill Climb</b>		<b>Sunday 13th September 2009</b>		<b>Organiser : ZL1IC</b>	
<u>Position</u>		<u>Operator</u>			
1.		ZL1IC			
2.		ZL1LD			
3.		ZL2MGS			
4.		ZL1RGM			
5.					
<b>School Cycling</b>		<b>Saturday 21st November 2009</b>		<b>Organiser : ZL1IC</b>	
<u>Position</u>	<u>Operator</u>	<u>Position</u>	<u>Operator</u>		
1.		5.			
2.		6.			
3.		7.			
4.		8.			
<b>Colville Connection</b>		<b>Saturday 13th March 2010</b>		<b>Organiser : ZL1UD</b>	
<u>Position</u>	<u>Primary Operator</u>	<u>Secondary Operator</u>	<u>Other Operator</u>		
<b>Base</b>	ZL1PK	ZL1DGK	ZL1LD		
<b>Stony Bay</b>	ZL1TNO???	Sandy???			
<b>Fletcher Bay</b>	ZL1UD				
<b>Hill 1</b>	ZL1IC				
<b>Hill 2</b>	ZL1TCE				
<b>Fantail Bay</b>	ZL1UPJ	Arthur			
<b>Stand By</b>					

For Details about and to help with these events, contact the person indicated as the organiser for the event. See Page 1 for their contact information.

## Club Information



### Contacts :-

**Business Meeting:** 1930 First Wednesday of each month  
88 Seddon Road, Hamilton

**General Meeting:** 1930 Third Wednesday of each month (except Jan)  
88 Seddon Road, Hamilton

**Homepage:** <http://z11ux.tripod.com>  
**eMail:** [branch.12@nzart.org.nz](mailto:branch.12@nzart.org.nz)

**HF Net:** 3.575MHz LSB 1930 Mondays  
**VHF Net:** 146.525MHz simplex 2000 Tuesdays

**2m Repeater:** 145.325MHz -600kHz split  
**STSP** 146.675MHz -600kHz split  
**Repeaters:** 438.725MHz -5 MHz split  
**ATV Repeater:** 615.250 Ch39 (off air)

*Cover Photo: 85 satellite dishes receiving 1500 channels from over 100 countries.*  
<http://www.nytimes.com/2009/06/30/world/asia/30satellite.html>

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