

Ham Hum

November 2010



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



Next General Meeting
17th November—19:30

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From the Editor

The Bridge to Bridge Water Ski Classic is upon us again this month. The 27th running of this popular event will be happening over the last weekend of this month.

This is also one of the bigger exercises for AREC where a large number of volunteers are organised, briefed and placed at various locations between Cambridge and Taupiri. Please contact our Section Leader or one of his Deputies as soon as possible.



**Next Committee Meetings -
3rd November & 1st December**

SB PROP ARL ARLP043

ARLP043 Propagation de K7RA

The daily sunspot number went all the way to 74 this week (on Tuesday, October 26), but the average sunspot number was down over five points from the previous week, to 50.3.

Several sunspot groups contributed this week. 1113 first appeared October 13, and was visible through October 26. 1115 emerged on October 15, and ran through October 27, its last day. 1117 emerged October 19, and was still growing yesterday, October 28. But 1117 is now approaching the western horizon, and is less and less geoeffective.

The latest prediction is for solar flux of 85 through October 31, 82 on November 1 and 78 on November 2-5, then 80 on November 6-11, and rising after that. Predicted planetary A index for October 29 through November 1 is 5, 8, 5 and 7, then back to 5 on November 2-17. Geophysical Institute Prague sees quiet to unsettled conditions October 29-30, quiet October 31 through November 1, November 2-3 unsettled, and November 4 quiet to unsettled.

Conditions shouldn't be bad this weekend for the CQ World Wide SSB DX Contest. Geomagnetic conditions should be relatively quiet, and we've had a little sunspot activity of late. But with sunspot group 1117 disappearing, unless a new one emerges, the sunspot number could drop back to zero.

A look at the STEREO mission at <http://stereo.gsfc.nasa.gov/> shows some possible activity just over the eastern horizon. There is also a very bright area, indicating magnetic activity straddling the unseen sector, which keeps getting smaller. Coverage should reach 96% around 1014 UTC on November 1, 97% at 0014 UTC on November 22, 98% coverage at 0014 UTC on December 14, and 99% at 1700 UTC on January 7, 2011.

Check <http://snipurl.com/1dauya> for a dramatic Sun photo taken on October 20 by amateur astronomer Alan Friedman with a small telescope. Thanks to "Phil Plait's Bad Astronomy Blog" at <http://blogs.discovermagazine.com/badastronomy/> for this.

Rich Dowty, W7EET reminds us of the DX Sherlock maps for propagation on 28 MHz and higher. See <http://www.vhfdx.info/spots/map.php> and dial in your favourite band and region.

Stu Phillips, K6TU had some comments regarding remarks I had in last week's Propagation Forecast Bulletin ARLP042 regarding WSPR real time data and how it might be used for evaluating propagation paths for other modes, such as SSB and CW.

He writes, "For every WSPR spot (which you can see in the database at the WSPRnet.org website), there is a power level in dBm and a signal to noise ratio reported by the receiving station.

"Although the antenna used by the transmitting station isn't known, you can get a pretty good idea of the path and what it would take in terms of increased ERP to successfully conclude either a CW or a SSB contact. I've also found pretty good correlation between propagation predictions using VOACAP that when adjusted for bandwidth (WSPR calculates SNR assuming a 2.5 kHz effective bandwidth) and power levels, correspond pretty closely with the SNR levels reported by WSPR.

"So pick your reference point - for example, if you need 12 dB SNR in a 200 Hz bandwidth to complete a CW contact, you can scale the WSPR report by adding 10 dB for the bandwidth delta and then scale appropriately for power/ERP delta. Most WSPR transmissions on the HF bands are 5 watts or less - so even a "standard" ham transmitter at the 100 watt level is a further uplift of 13 dB even without ERP boost from a decent antenna."

We'll have more information next week from K6TU regarding WSPR and propagation.

If you would like to make a comment or have a tip for our readers, email the author at, k7ra@arrl.net.

For more information concerning radio propagation, see the ARRL Technical In-

formation Service web page at <http://arrl.org/propagation-of-rf-signals>. For an explanation of the numbers used in this bulletin, see <http://arrl.org/the-sun-the-earth-the-ionosphere>. An archive of past propagation bulletins is at <http://arrl.org/w1aw-bulletins-archive-propagation>. Find more good information and tutorials on propagation at <http://mysite.ncnetwork.net/k9la/index.html>.

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

Instructions for starting or ending email distribution of ARRL bulletins are at <http://arrl.org/bulletins>.

Sunspot numbers for October 21 through 27 were 34, 34, 43, 57, 57, 74, and 53, with a mean of 50.3. 10.7 cm flux was 83.5, 82.2, 84.3, 82.1, 86.2, 86.1 and 87.6 with a mean of 84.6. Estimated planetary A indices were 3, 6, 23, 14, 6, 8 and 4 with a mean of 9.1. Estimated mid-latitude A indices were 1, 4, 16, 10, 4, 6 and 3 with a mean of 6.3.



Kairangi Hillclimb

supported by the Hamilton Amateur Radio Club

12 September 2010 Time at Hall, Start Time 0830 hours

Positions :

Paddock (results)

Finish Records start and finish times also relays results to paddock

3rd Corner

2nd Corner

1stCorner

Start

Operators :	Robin	Radio Start
	Gary	Finish / + shaun (stopwatch & record)
	Mike	3rd corner
	Brett	2nd
	Raymond	paddock
	Laurence	1st

Report to AREC and Waikato Vintage CCNZ

The day began with a pre-event brief on the various parts of the Hillclimb programme. Radio support members were issued with a copy of page 1. Clerk of the course delayed start until 1030 hours due to driving rain. He then arranged radio crew to be dropped off at each starred point. There were also Marshals accompanying them.

Equipment used included handhelds and mobile radios all locked to 146.525 simplex.

The first run of the day was practise, followed by the first serious time attempts. All runs were logged at paddock and finish.

1330 hours: Serious competition commenced from this time, when 5 runs concluded a most enjoyable day.

Points raised at AREC meeting at HARC clubrooms 29 Sept 2010.

1. Problems at start: ensuring that the road was clear from Clerk of Course / Finish, after each run. {addressed before practise session completed}

2. Radio delay in passing times to the paddock official. {addressed}.

3. Start / Finish radio messaging tightened up, minimal speech effort. { much improved in the afternoon session }

The whole afternoons programme was an almost continual procession of race cars, with no dramas.

It was observed that radio traffic for passing car times between Finish and Paddock could be conducted on another channel, so that road safety control is maintained throughout the hillclimb. Radio club will need some training time on suitable procedures before next event.

The fast pace of the afternoon to make up for a slow morning meant that radio operators did not get any breaks between runs.

It is suggested that both WVVCC and HARC explore ways to improve the timing method.

The radio personnel should not be less than seven for this event. All participants thoroughly enjoyed the day, and express their thanks to the cooks and tea ladies for the lunch.

R Holdsworth ZL1IC
for the AREC group Hamilton ARC

New Tower

The Committee for some time has been working on a project for the replacement of the wooden pole at the end of the club rooms. The wooden pole is beyond its useful life and needs to be addressed. The new tower provides opportunity for the club to improve the operations room and its ability to support members in trying new areas for HAM radio.

To date the Committee has found a replacement tower and engaged an engineer

to prepare specifications and drawings for the base of the tower. The tower is 15m aluminium triangular tower.

With the weather improving our minds turn to **action**.

To complete this project we need help. The following is a list of the materials that we need, you may have some of these that you would like to contribute or would like to contribute in some other way. At the appropriate time a spade with operator attached would be most appreciated.

Things we need to acquire:

6	M20 G4.6 Hold Down Bolts x 350mm
2.5m ³	M25Pa Mass Concrete (2.5m x 2.5m x 0.4m)
12.5m ²	HD12 @ 300c/c
6	M12 G8.8 Bolts
10m	Boxing material
1	Earthing Rod
	Wire to bond Tower and earth
3 sheets	2.4 x 1.2 Marine Ply appropriate to cover tower.

In addition financing any of the above we cannot acquire by other means we need to finance the cost of building consents etc.

If you would like to help, please email the club or make contact with one of the Committee members. Now is the best window of opportunity to get this project moving.

Thank you,

Raymond McNickle
Committee Member

Closure of VK7AX packet BBS network

After approximately 35 years of operation, **Tony VK7AX** has decided to close the Packet Radio BBS known by the SSID of VK7AX-6.

This decision was not taken lightly, however the time has eventually come, according to Tony, to close the BBS.

Due to the decline of RF users in recent times to ZERO and increasing running costs, he has reluctantly come to the conclusion that it is not worth continuing to maintain a system purely to act as a Bulletin Forwarding machine only.

He takes the opportunity to thank the many sysops and friends (world wide) that have helped or contributed in one way or another over many years. Without the true Amateur Spirit and encouragement shown to him by many, he feels that he would not have continued maintaining and operating the BBS for as long as he has.

The BBS will be turned off on Saturday 30 October 2010.

This follows the closure of the Tnos packet Gateway machine VK7AX-8 which was decommissioned approximately 3 months ago for the same reasons.

Once again many thanks to everyone for their support and valued friendships.

Finally, for those still interested in packet, please support the only remaining BBS in VK7 - VK7HDM (email: ddm@lnx-vk7hdm.dnsalias.org)

73's
Tony VK7AX
(Past SYSOP VK7AX-6 and VK7AX-8)

How It's Made: Circuit Boards

A Discovery Channel video describing how printed circuit boards are made is now available.

Watch the video

http://www.southgatearc.org/news/october2010/circuit_boards.htm



Making your own Printed Circuit Boards

Here are a selection of videos showing how to make your own Printed Circuit Boards (PCB's) at home.

MAKE Magazine - Circuit Skills: Circuit Board Etching

Make Your Own Printed Circuit Boards on a Laserjet!

Photo-etching printed circuit board (homebrew PCB)

http://www.southgatearc.org/news/march2010/make_your_own_pcb.htm

Upcoming Happenings & Events

<i>Date</i>	<i>Happenings & Events</i>
1st November	HF Net, 3.575 MHz, 19:30
2nd November	VHF Net, 146.525 MHz, 20:00
6th November	eDay 2010
6th November	Papakura Sprint (Phone)
7th November	NZART Straight Key Night
7th November	NZART HQ Info-Line
8th November	HF Net, 3.575 MHz, 19:30
9th November	VHF Net, 146.525 MHz, 20:00
10th November	Closing date for next Break-In
13th November	Suburban Radio Club Hamfest & Junk Sale
13th November	NZART Boat Anchor Sprint
13th November	Papakura Sprint (CW)
13th November	GlobalSET
15th November	HF Net, 3.575 MHz, 19:30
16th November	VHF Net, 146.525 MHz, 20:00
17th November	General Meeting
21st November	NZART HQ Info-Line
22nd November	HF Net, 3.575 MHz, 19:30
23rd November	VHF Net, 146.525 MHz, 20:00
27-28 November	Bridge to Bridge (AREC)
28th November	NZART Official Broadcast
29th November	HF Net, 3.575 MHz, 19:30
30th November	VHF Net, 146.525 MHz, 20:00

4-5 December—NZART VHF/UHF/SHF Field Day Contest
4-5 December—KDMG Twin Sprint
5th December—NZART HQ Info-Line
15th December—General Meeting
19th December—NZART HQ Info-Line
19th December—NZART Official Broadcast
5th February 2011—Summer Sprint (Phone)
6-7 February 2011—NZART VHF/UHF/SHF DX Weekend
12th February 2011—Summer Sprint (CW)
12th March 2011—Colville Connection (AREC)
22-25 April 2011—VHF Convention (Wellington)
14th May 2011—Tasman Sprint (Phone)
21st May 2011—Tasman Sprint (CW)
4-5 June 2011—NZART Conference (Upper Hutt)

For more information on any of the above please contact myself or any committee member.

AREC Event Operators Page

WRC Rally NZ/ Possum Bourne Rally	2011	Organiser : ZL1DK
Please contact the Section Leader with your team information and he will pass it on to Auckland.		

Rollo's Marine Bridge to Bridge Water-Ski Race	27-28 November 2010	Organiser : ZL1UPJ
<u>Position</u>	<u>Saturday Operator</u>	<u>Sunday Operator</u>
Base		
Start Boat		
Rescue Boat		
X-Band		
A.	Ngaruawahia/Taupiri	
	Start/Finish at Point	
B.	Ngaruawahia Ramp	
C.	Ngaruawahia W/S	
D.	Horotiu	
E.	Pukete Ramp	
F.	Days Park	
G.	Fairfield Bridge	
H.	Malcolm St	
I.	Narows	
J.	Field Days	
K.	Between Pipe and F/Days	
L.	High Level Bridge	

Kairangi Hill Climb	Sunday September 2011		Organiser : ZL1IC	
<u>Position</u>	<u>Operator</u>			
1.				
2.				
3.				
4.				
5.				
School Cycling	July 2011		Organiser : ZL1IC	
<u>Position</u>	<u>Operator</u>	<u>Position</u>	<u>Operator</u>	
1.		5.		
2.		6.		
3.		7.		
4.		8.		
Colville Connection	12th March 2011		Organiser :	
<u>Position</u>	<u>Primary Operator</u>	<u>Secondary Operator</u>	<u>Other Operator</u>	
Base				
Stony Bay				
Fletcher Bay				
Hill 1				
Hill 2				
Fantail Bay				
Stand By				

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

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: First play-by-play American football broadcast—21 Nov 1921 by Texas radio station 5XB.

Sender	Hamilton Amateur Radio Club (Inc) PO Box 606 Hamilton 3240
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