

# Ham Hum

July 2011



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



**Next General Meeting**  
**20 July - 7:30pm at the clubrooms.**

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## From the Editor

Of special note this month is the awarding of the Jumbo Godfrey Award to our very own ZL1UPJ (Jono). This award is to be made to the radio amateur or non-transmitting branch member who in the opinion of the nominator(s) has given outstanding service to Amateur Radio at a branch level over a period of time that has not been recognized anywhere else. And I think we can all agree that Jono has given outstanding service to Amateur Radio and fully deserves the recognition.

The Hamilton Market Day is coming up on 13th August. See page 8 for more details.

Conference report :-

Remit 1, Carried, on vote count,

Remit 2 Lost on vote count,

Remit 3 Lost on voices

Remit 4 Lost on voices

Remit 5 Lost on voices

Remit 6 Lost on voices

Remit 7, having received an amendment to include 160m, which was passed by the floor, Carried on vote count.

Remit 8 Lost on vote count

Remit 9 Lost on voices

Remit 10 Lost on voices

Remit 11 Lost on voices

Remit 12 - withdrawn

Remit 13 - withdrawn

Refer Mar/Apr 2011 Break-In for remit details.

## Next Committee Meetings - 6th July & 3rd August

## **SB PROP ARL ARLP025**

### **ARLP025 Propagation de K7RA**

Over the past week (June 16-22) the average daily sunspot number rose nearly 20 points to 55, and average daily solar flux readings increased by nearly 9 points to 98.6. All geomagnetic indices declined slightly. These increases or decreases are relative to the previous seven days, before June 16.

For the past month we've been looking nervously toward ARRL Field Day, because a forecast from NOAA and USAF showed possibly unsettled geomagnetic conditions on Friday, June 24, and continuing through Field Day weekend.

The forecast has evolved from troubling to frightening, and back again. Early in June the predicted planetary A index for June 24-26 was 18, 18 and 15. Then on June 7 it changed to 15, 15, and 10, a little better. Then a week later things looked even more promising on June 14 at 15, 10 and 5. But on June 17 it was revised upward, to 30, 15 and 5. A planetary A index of 30 indicates a geomagnetic storm.

The next day on June 18 the forecast shifted to 25, 18 and 8, and on June 19 it changed again to 25, 18 and 10. June 20 saw a slight change to 25, 18 and 8 again, then June 21 it shifted to 15, 40 and 25. An A index of 40 on the first day of Field Day sounds ominous. Then June 22 it changed again to 30, 10 and 10, and now the June 23 prediction for June 24-26 shows a planetary A index of 30, 18 and 12.

Basically we would love to see the A index as low as possible, five or less would be wonderful. The latest news is that the solar wind from a Coronal Mass Ejection which occurred on the solstice is moving slower than originally thought, which means a weaker effect here on Earth. A planetary K index of 5 is expected when the storm arrives, now predicted at 0700z on June 24, which is 35 hours before the start of Field Day, 1800z on June 25.

At 0640z on June 23, the Australian IPS Radio and Space Services released a bulletin stating that increased geomagnetic activity is expected on Jun4 23-24 due to the coronal mass ejection, but that the effect on June 23 is expected to be mild, with a small chance of isolated storm periods.

Geophysical Institute Prague predicts active conditions June 24, unsettled to active on June 25, quiet to unsettled June 26-27, and quiet on June 28-30.

The last forecast before Field Day should be on Friday, June 24, released after 2100z. Check <http://www.swpc.noaa.gov/ftpmenu/forecasts/45DF.html> and also <http://www.swpc.noaa.gov/ftpdir/indices/DGD.txt> for the latest K indices. The similar <http://www.swpc.noaa.gov/ftpdir/indices/DSD.txt> shows you solar flux, sunspot number, and other data such as sunspot area.

The most recent forecast from USAF and NOAA has solar flux at 95 on June 24-25, 90 on June 26-30, 85 on July 1, and 95, 93 and 90 on July 2-4. Predicted planetary A index for June 24-26 is 30, 18, and 12, 8 on June 27-28, and 5 on June 29 through July 1.

Ron Zond, K3MIY of Clarion, Pennsylvania found an interesting article in an old QST from a half century ago. John Chambers, W6NLZ published "After Sunspots - What?" on pages 66-67 in the March 1960 QST. I was about to dig out that old issue when I remembered that ARRL members can access an archive of QST magazines running from December 1915 to December 2007 at <http://www.arrl.org/arrl-periodicals-archive-search>. I just searched on Name: Chambers Call: W6NLZ Year: 1960 and went right to it.

This article was written just after the peak of Cycle 19 (which was huge!) and in it the author speculates on what a future with little or no sunspots might hold.

I thought W6NLZ seemed like a familiar call from my childhood, and he was known back then for his VHF records establishing contact with KH6UK. Check out <http://wy6k.com/Shack%20Photos/1961/Great%20Shack%20Photos%201961%20Page%202.htm> for photos of both of them.

Thanks to Howard Lester, N7SO of Schuylerville, New York, K3CWF and a number of others who sent in this article from Sky & Telescope about disappearing sunspots: <http://www.skyandtelescope.com/community/skyblog/newsblog/123844859.html>. Howard notes that there is no mention of the dissenting view.

Jeff Hartley, N8II of Shepherdstown, West Virginia sent in his observations on recent conditions: "Conditions have seemed down from 2-3 weeks ago, but there has been a decent amount of sporadic-E as we near the peak of the season which seems to me to be right around July 1 on average. Late into the evening openings to EU on 15 meters and higher have been much rarer, but there was some good propagation reported in the All Asia CW contest by others.

"Around 0100Z Sunday on 15 phone, I worked Jim, E51JD in Parotonga, South Cook with a S9 signal. He was only running 100W to a small low tribander.

"Saturday June 18, I was active in the WV QSO party and the sporadic-E continued to abound again this year as it did in 2010. Not much was happening right at the 1600Z start, but by 1700Z skip on 20 phone was short enough to work the other side of WV, southern VA, and many in NC. I even worked a guy in Weaverville, NC in the Smokies where I had stopped for breakfast a day ago - small world! There were plenty of OH and KY stations for a while, then the band opened to the northeast and even as close as DE about 140 miles from here! I managed to work all states except AK and VT (propagation and QSO total to neighboring NH was good) in a few hours. 10M was not quite good enough to spend much time there while I was able to operate, but at 0100Z there was double hop Es to CA, NV, and AZ.

"On Friday June 17 around 2200Z, 6 meters was open to FM5AA, FM5AN, V44KAI, and FG5FR. "There were about the normal amount of Es on 6 meters during the June VHF contest with C6, VP9, a few double hop stations in the Rockies and lots of 4s, 5s and southern 0s logged."

Lawrence, GJ3RAX of the Isle of Jersey observes: "I have had some comments from Nick VE3OWV. I have known him for a long time as we were at university together in England in the early 60s. He has also noticed that, although the sunspots have been increasing recently, the propagation has not improved in the way it did at a similar stage of previous cycles. We have not been able to get back to our skeds on 17 that we used to keep so email has had to do instead. He did say that he has been having QSOs to Europe on 17 at about 11 to 12 pm my time. Normally I only look on the bands during the afternoons so I will start checking them again at that time. I used to enjoy late night QSOs when I was younger but my stamina is now rather less than it used to be!"

Check out K9LA, Carl Luetzelschwab's Propagation column on pages 16-19 in the July 2011 issue of Worldradio, which you can download for free at <http://worldradiomagazine.com/>. He talks about signal comparisons on the air in the 1980s, and how to use some new tools such as internet connected remote receivers and a reverse beacon network for similar comparisons today.

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



## **DATV in New Zealand**

ZL1WTT recently posted an article on the AKATV Yahoo Group about his cutting edge experimentation with Software Defined DATV (Digital Amateur TeleVision). More information on this can be found at <http://qsl.net/zl1wtt/S-D.htm>

Sent: Thursday, 9 June 2011 6:00 p.m.

Subject: [akatv] Software-defined Television

Hi All,

Today I got my software-defined Television DATV transmitter running after two months working on this project.

It is software-defined as far as the Mpeg2 encoders and the multiplexer. These stages are set via software using Ubuntu Linux as the OS, using shell script files. The code used is based on C programming language and lets me plug into various software modules. To assemble data packets as a

DVB transport stream, that is then converted to an ASI signal to feed a L-band QPSK modulator. By taking this approach I have kept the cost down to a minimum, where by most of the parts were sourced from Trademe, such as Mpeg2 encoder cards, the Satellite tuner cards and the shuttle computer running the required software.

I have configured the script files for a single channel, two channels without too many problems and got up to a four channel multiplex running. I have also tested a HD 1080i h264 encoded file as well. As far as I can tell I am the first to get a software-defined ATV transmitter operational. So it might pay to remember today's date in Ham radio history.

I plan to demonstrate this technology on the ATV repeater and hope to do some testing on 23cm simplex over coming weeks.

Grant—ZL1WTT



## **NZART Top Monitoring System Observer Award**

The purpose of this NZART Top Monitoring System Observer Award is to encourage all listeners and radio amateurs to actively report unusual signals or suspected intruders on the allocated international and IARU Region 3 radio frequencies from VLF to Microwave. The purpose of these reports is to assist the NZART Monitoring System Co-ordinator who collates and verifies potential intruders, who invade our precious finite radio frequencies. This information will be recorded for evidential purposes and where appropriate action taken to remove the intruder. There is a very long history of radio amateurs and listeners' providing such reports to ensure that the allocated frequencies are protected for the enjoyment of all.

### **What do you need to do?**

Merely enjoy your scientific hobby, but report signals via the different means available via the NZART web site to the Monitoring System Co-ordinator. All reports will be verified and collated into an annual league table and shown in the bi-monthly Break-in magazine and NZART Web pages. The person judged to be a prolific and solid Intruder Watch contributor during each year. The recipient will receive a free one year NZART (single) membership subscription and will be provided with an of-

ficial certificate of merit of their achievement. The NZART Monitoring System Coordinator will ask for clarification or additional information as required to verify the report.

**Conditions:**

All past and present Monitoring System Co-ordinators are barred from entry for this award.

Send reports including date/time in GMT, Frequency, Readability, Strength, Tone (RST), Mode, direction of signal (if possible), and any relevant comments.

Send your reports to: [MS@nzart.org.nz](mailto:MS@nzart.org.nz) or via: [intruderwatch@googlegroups.com](mailto:intruderwatch@googlegroups.com)

You do not need to be a current member of NZART to contribute towards the Top Watcher Award or to participate.

The award winner will be declared in November of the current year.



Hamilton Amateur Radio Club

# MARKET DAY

Saturday August 13th ,2011

Hamilton Table Tennis Club Rooms  
Edgecumbe Street, Hamilton

Vendors from 8.00 am

Buyers from 10.00 am

Table space at \$20 per metre pre-paid

\$25 per metre on the day

All enquiries to: Market Day, Hamilton Amateur Radio Club,  
PO Box 606, Hamilton

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

Web: [http://z11ux.tripod.com/market\\_day.html](http://z11ux.tripod.com/market_day.html)

Location: [http://z11ux.tripod.com/market\\_day.html](http://z11ux.tripod.com/market_day.html)



A couple of photos of recent changes at the clubrooms. A concrete base for the replacement tower to accommodate our rotatable HF beam.

And, extra protection for the clubroom windows that face Hinemoa Park that sometimes receive damage from wondering people.

Many thanks to all those involved in this work.



There is only one  
**NEW ZEALAND ASSOCIATION**  
of  
**RADIO TRANSMITTERS.**

It serves you at  
local, national and international  
levels.

*It deserves our full support  
if we are to continue to have  
the frequencies and operating privileges  
we currently enjoy.*

**The Association  
is what you and I make it.**



## Upcoming Happenings & Events

<i>Date</i>	<i>Happenings &amp; Events</i>
<b>2-3 July</b>	<b>NZART Memorial Contest</b>
<b>2nd July</b>	<b>Whangarei Junk Sale</b>
<b>3rd July</b>	<b>NZART HQ InfoLine</b>
4th July	HF Net, 3.575 MHz, 19:30
5th July	VHF Net, 146.525 MHz, 20:00
<b>10th July</b>	<b>Break-In copy due</b>
11th July	HF Net, 3.575 MHz, 19:30
12th July	VHF Net, 146.525 MHz, 20:00
<b>17th July</b>	<b>NZART HQ InfoLine</b>
18th July	HF Net, 3.575 MHz, 19:30
19th July	VHF Net, 146.525 MHz, 20:00
<b>20th July</b>	<b>Hamilton General Meeting</b>
25th July	HF Net, 3.575 MHz, 19:30
26th July	VHF Net, 146.525 MHz, 20:00
<b>30th July</b>	<b>Franklin Junk Sale</b>
<b>31st July</b>	<b>NZART Official Broadcast</b>

**6-7 August—NZART Brass Monkey Contest**  
**7th August—NZART HQ Infoline**  
**13th August—Hamilton Market Day**  
**13th August—NZART Boat Anchor Sprint**  
**17th August—Hamilton General Meeting**  
**21st August—NZART HQ Infoline**  
**28th August—NZART Official Broadcast**  
**31st August—Branch AREC Meeting (AREC)**  
**4th September—NZART HQ Infoline**  
**5th September—NZART Doug Gorman Freq Measuring Contest**  
**10th September—Break-In copy due**  
**18th September—NZART HQ Infoline**  
**25th September—NZART Official Broadcast**  
**October—Western Suburbs Junk Sale**  
**1-2 October—NZART Microwave Contest**  
**1st October—Oceania All Bands SSB Contest**  
**8th October—Oceania All Bands CW Contest**  
**5th November—Papakura Sprints (Phone)**  
**6th November—NZART Straight Key Night**  
**12th November—Papakura Sprints (CW)**  
**3-4 December—NZART VHF Field Day Contest**  
**4-5 February 2012—NZART DX Weekend Contest**  
**25-26 February 2012—Jock White Memorial Field Days**  
**10th March 2012—WARO 50th Anniversary Celebration**  
**April 2012—WARO TheIma Souper Memorial**  
**7-8 April 2012—NZART Low Band Contest**

## AREC Event Operators Page

<b>WRC Rally NZ/ Possum Bourne Rally</b>	<b>7/8 May 2011</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>November 2011</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>		
<b>Start Boat</b>		
<b>Rescue Boat</b>		
<b>X-Band</b>		
<b>A.</b>	Ngaruawahia/Taupiri	
	Start/Finish at Point	
<b>B.</b>	Ngaruawahia Ramp	
<b>C.</b>	Ngaruawahia W/S	
<b>D.</b>	Horotiu	
<b>E.</b>	Pukete Ramp	
<b>F.</b>	Days Park	
<b>G.</b>	Fairfield Bridge	
<b>H.</b>		
<b>I.</b>		
<b>J.</b>		
<b>K.</b>		
<b>L.</b>		

<b>Kairangi Hill Climb</b>	<b>Sunday September 2011</b>		<b>Organiser : ZL1IC</b>
<u>Position</u>	<u>Operator</u>		
1.			
2.			
3.			
4.			
5.			
<b>School C ycling</b>	<b>July 2011</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>10th March 2012</b>		<b>Organiser : ZL1PK</b>
<u>Position</u>	<u>Primary Operator</u>	<u>Secondary Operator</u>	<u>Other Operator</u>
<b>Base</b>			
<b>Stony Bay</b>			
<b>Fletcher Bay</b>			
<b>Hill 1</b>			
<b>Hill 2</b>			
<b>Fantail Bay</b>			
<b>Stand B y</b>			

For Details about and to help w ith 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://z1ux.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: The new Raglan repeater (145.675+) at Te Uku. With thanks to the Waikato VHF Group Branch 81.*

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