

# Ham Hum

November 2013



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



**Next Meeting :**  
**20<sup>th</sup> November : 7:30pm**  
**Mike Baird—Radio Inspector**

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**NZART Examiners:** ZL1IC, ZL1PK & ZL1TJA

## **From the Editor**

The next meeting on 20th November will feature Mike Baird, our local Radio Inspector with RSM (now part of MBIE). He will be talking about the current function of RSM and his role there. All going well he will also be able to update us on the lower portion of 6m (50-51MHz) after the cutover to digital on 1st Dec and the end of broadcasters right to those frequencies in 2015. A meeting not to be missed.

At the end of the month is the annual Bridge to Bridge Ski Race down the Waikato River. Please see Mike ZL2MGS if you can help out with this event. On Sunday we need to cover from Cambridge all the way to Taupiri and that's a mighty long way.

**Next Committee Meetings -  
6<sup>th</sup> November & 4<sup>th</sup> December**

## **SB PROP ARL ARLP043 ARLP043 Propagation de K7RA**

Solar activity is increasing, suggesting that perhaps now in Fall 2013 we are in the midst of a second peak in Cycle 24. We hope it sustains.

Sunspot numbers this week ran up all the way to 228, a level not seen in the past decade since October 27 through November 1, 2003 when the daily sunspot numbers were 238, 230, 330, 293, 266 and 277. Prior to that, on January 11, 2003 the daily sunspot number was 238.

Average daily sunspot numbers increased over 35 points to 162 (when compared to the previous seven day period, October 10-16).

Average daily solar flux increased over 13 points to 139.6.

Geomagnetic indices indicate a quiet geomagnetic field.

Predicted solar flux this week is 165 on October 25-27, then 160, 155, 145, 135, 130, and 115 on October 28 through November 2, 120 on November 3-5, 125 on November 6-10, 130 on November 11, 135 on November 12-13, then 130, 120, 115 and 120 on November 14-17, and 115 on November 18-20. Based on recurrence due to solar rotation, in 45 days flux values are predicted at 130.

Predicted planetary A index is 16, 12, 8 and 20 on October 25-28, 8 on October 29-30, 5 on October 31 through November 9, then 12, 15, 10 and 8 on November 10-13, 5 on November 14-16, then 10 and 8 on November 17-18. After November 18 everything looks very quiet (A index of 5) until 44-45 days out, when the prediction shows A index values of 12 and 15 on December 7-8.

Those predictions come from the United States Air Force Space Weather Squadron, and are made available to the public via NOAA.

See [\\_](#)

[This set of PDF slides gives a hint at some of the tools they use:](#)

[http://ccmc.gsfc.nasa.gov/RoR\\_WWW/workshops/2012/Thursday\\_pdf\\_smithro\\_ccmc2012.pdf](http://ccmc.gsfc.nasa.gov/RoR_WWW/workshops/2012/Thursday_pdf_smithro_ccmc2012.pdf).

As usual, OK1HH gives us his own predictions for geomagnetic activity. He sees quiet to active geomagnetic conditions on October 25, quiet to unsettled October 26, mostly quiet October 27, quiet to active October 28-29, mostly quiet October 30, quiet October 31 through November 3, mostly quiet November 4, quiet to active November 5, quiet to unsettled November 6, mostly quiet November 7, quiet to active November 8-12, quiet to unsettled November 13, quiet on November 14-19, and mostly quiet November 20. He does not expect any days with active to dis-

turbed conditions.

Pete Markavage, WA2CWA of Sayreville, New Jersey reports great conditions on 10 meters this week, but using AM and FM instead of CW or SSB. Pete wrote, "Ten meters has been hot all week. During the late morning hours of October 22 I worked about 25 stations, all on AM, in a number of Eastern and Western European countries. AM power was about 90 watts into a 4 element tri-bander. In the late afternoon I worked a Japanese station on 10 FM direct with a 40 watt rig. On October 24 around 6:45 PM EDT, finally worked my first Japanese station on 10 AM. 6 meters has been dismal for openings here in the East, but 10 meter activity is making up for it."

A week ago we got this from Jeff Hartley, N8II in West Virginia, but not in time for last week's bulletin: "10 meter and 12 meter propagation has been up and down with the degree of disturbed conditions, but almost every day the Middle East and Southern EU are booming in on 10 meters here.

"I listened Wednesday October 16 until 1430Z and 10 never opened well to Europe, but that evening about 75 minutes past sunset I was able to work a weak JA on 10 meter CW, heard one more and worked another on 12 meter CW around 2400Z when the band seemed to be closing rapidly. Jimmy BX5AA (Taiwan) was S7 on 15 phone about 0010Z and easily logged, so it seemed the K index lowered as the day progressed. A day or two before 10 was wide open to Scandinavia around 1300-1400Z as well as several southern UA3 area stations worked on CW. Paths to Africa have been open very late into the day with TN2NS (Congo) loud at 2130Z on 10 phone and even later on 12 CW."

Chip Margelli, K7JA wrote (also last week): "From what I was able to hear in a brief tune around 10 meters this morning (October 18), it is widely open to Europe, the Middle East, and Africa. Nice signals were observed from OD5ZZ and OD5NJ, several 4X/4Z stations, SU8JOTA (Boy Scout Jamboree On The Air in Egypt!), and generally signals from all of Europe were excellent. F6KHM (0.5 W) and MM3FYA (5 Watts to an attic dipole) were nice copy this morning (October 18) around 1600 UTC.

"Last night, 18 October at 0158 UTC, I worked FK8CP on 50.110.6 MHz. Remi peaked about 579 and was in for at least a half hour. QSB was very heavy, almost like meteor scatter at times, but he also became steady, solid copy at times, too.

"It's nice to have some prop!

"I run 200 Watts to a 7-element LFA Yagi on 6 meters, and the same 200 Watts to a 7-element OP-DES Yagi on 10 meters."

Ganesh, VU2TS sends us this message from Karnataka: "Hello and Greetings from South India! I am the editor of Amateur Radio News of the Amateur Radio

Societies of India - ARSI (<http://www.arsi.info>) and I wish to take this opportunity to thank you for your propagation bulletin which we are receiving regularly.

"With the sunspot activity quite low, the band conditions these days are poor - even though we are supposed to be experiencing the Solar Max, Hi!

"However, I wish to share with you my pet theory about amateurs ionizing the ionosphere. This weekend is the CQ WW DX SSB contest, and with something like 30 to 40,000 stations on the air at the same time, and some 30% of them using a kW or more, all the bands open up for long haul DX! (Remember HAARP?)

"Just listen to the bands this weekend - and you will be surprised at the unusual band openings! Feedback welcome. 73, Ganesh VU2TS."

That's right Ganesh, in order to feed the ionosphere we have to call, not just listen. It is part of the magic of radio.

Further evidence of the magic of radio is the fact that I am writing Friday's bulletin while using an airline Wi-Fi connection during a flight from Seattle to Washington D.C. Like all other basic in-flight amenities, such as snacks, it is quite expensive. Of course, back when snacks were free, I couldn't get an internet connection in the air.

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).

For more information concerning radio propagation, see the ARRL Technical Information 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>. More good information and tutorials on propagation are at <http://k9la.us/>.

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

Sunspot numbers for October 17 through 23 were 166, 154, 149, 117, 179, 228, and 141, with a mean of 162. 10.7 cm flux was 136.1, 139.9, 132.7, 133.4, 135.8, 146.3, and 152.7, with a mean of 139.6. Estimated planetary A indices were 9, 3, 3, 3, 2, 5, and 4, with a mean of 4.1. Estimated mid-latitude A indices were 10, 3, 3, 3, 2, 3, and 3, with a mean of 3.9.

## South Sudan Z81X Operation Set for November

A multinational group will be in Juba, South Sudan, November 14–28 to activate Z81X. Emphasis will be on 160 and 80 meters. The period includes the [CQ World Wide](#) CW contest; there will be some single-band entries as well as low-band SSB focus during the contest weekend.

Hosted by the [South Sudan Ministry of Posts and Telecommunications](#), the group, led by [IARU Region 1](#) President Hans Blondeel Timmerman, PB2T, will conduct a series of workshops, with support by the [Yasme Foundation](#), aimed at establishing a sound Amateur Radio spectrum management and regulatory regime. Other operators will include Dietmar, DL3DXX; Wayne, N7NG; Olli, OHØXX; Martti, OH2BH; Pertti, OH2PM; Veijo, OH6KN, and Tefik, TA1HZ (the team doctor), plus Massimo, Z81B (IZØEGB), and Diya, Z81D (YI1DZ).

Plans call for three generator-powered stations with amplifiers, low-band verticals and Beverage antennas; two sites may be used. Z81X team members will use their [QRZ.com](#) pages to provide updates and to recognize supporters.

Z81X Project Goodwill South Sudan is organized jointly by [Radio Arcala](#), [DX University](#), IARU Region 1, and Rock City Investments Co; the equipment sponsor is [Yaesu](#). In support of the DX University, the team will take note of specific relationships between pileup behavior and operator technique.

Additional information will be available in advance of the operation. The group welcomes support from individuals, clubs and foundations. Visit the Z81X [QRZ.com page](#). QSL via OHØXX. —*Jarmo Jaakola, OH2BN*

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## Remember when...

This came from **Margaret ZL1MB** in the Rotorua newsletter, which one of the WARO ladies recited at their recent 50<sup>th</sup> Anniversary Luncheon.

**Remember** the days of separate transmitters, receivers and amplifiers?

**Remember** having to adjust inter-stage tuning because the post-oscillator buffer was used on the fundamental, as a doubler, or a tripler, depending on the band?

**Remember** changing coils?



**Remember** zero-beating your RX to your TX?

**Remember** carrying on split QSOs because you were both rockbound but with different TX freq.'s

**Remember** having to adjust and measure grid bias, grid voltage, grid current, screen voltage, screen current, plate voltage, plate current, input tuning, output tuning, output loading, etc.?

It was bloody complex but that is what you did, because it was what the technology required. If you didn't understand, you didn't operate! Now you buy a radio, plug it in, select the band, tune the signal, and start transmitting. No sweat. See the progression? And that is when I (joined) became licensed.

Written by Brian Lloyd, WB6RQN/J79BPL.

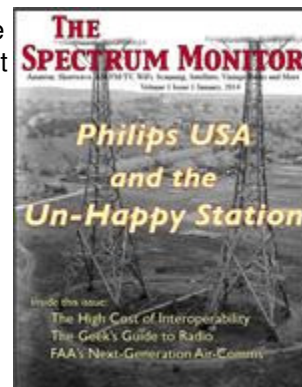
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## NEW RADIO MAGAZINE TO LAUNCH

A new electronic publication, *The Spectrum Monitor*, will follow the final issue of *Monitoring Times*, a paper and electronic publication covering amateur, shortwave and scanner-related topics, which ceases publication after a thirty-three year run following the retirement of its publisher, Bob Grove.

Managing editor, Ken Reitz KS4ZR, made the announcement in the November issue of *Monitoring Times*. "As the accolades poured in, all readers, regardless of how long they had been subscribers, expressed sadness and dismay at the closure of the magazine. I came to believe that there might be enough interest to warrant continuing the publication in some other form. I took it upon myself to explore the possibility of a follow-on magazine, not connected with *Monitoring Times* or Grove Enterprises, its publisher."

*The Spectrum Monitor* will debut with the January 2014 issue, on December 15, 2013, and will carry virtually all of the current *Monitoring Times* columnists and feature writers. Reitz noted, "These are the experts in all facets of radio who have helped make *MT* the best, full-spectrum magazine available and we are all excited about continuing our work for the new publication."



*The Spectrum Monitor* will be available only as an electronic publication in PDF format which may be read on any **desktop, laptop, iPad™, Kindle Fire™** or any



other device capable of opening a PDF file. Details on how to become a charter subscriber may be found at [www.thespectrummonitor.com](http://www.thespectrummonitor.com).

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## New satellite segment in IARU Region 2 band-plan

Following the IARU Region 2 (the Americas) meeting in September at Cancun, Mexico, the new Region 2 bandplans for all allocations from 137 kHz to 250 GHz have now been published

There is a new allocation for the Amateur-Satellite Service from 144.000-144.025 MHz.

There is also a reference to **NSS** – Near Space Stations in the definitions section. This is believed to be the first mention of High Altitude Balloons in any radio amateur band plan document. It says

*NSS - Near Space Stations:*

*Equipment located in temporary Near Space Stations (such as those carried by High Altitude Balloons) can transmit carefully on any frequency; exceptions are the segments with "exclusive" usage where "NSS" are not applied. NSS must follow the BW and mode restrictions of the segment and observe carefully the usual occupation of the band on the related region to avoid harmful interference. For longer missions and NSS crossing international and regional boundaries, extra care must be observed in harmonization of different allocations.*

A new Amateur-Satellite Service allocation at 144.000-144.025 MHz has now been covered in both IARU Regions 1 and 2 meetings but in order for the allocation to become a practical reality it needs to be agreed by IARU Region 3 (Asia and Pacific). It is not yet clear if this vital item is on the agenda for the next IARU Region 3 meeting.

See the new IARU Region 2 bandplans at  
<http://www.iaru-r2.org/documents/explorer/files/Plan%20de%20bandas%20%7C%20Band-plan/R2%20Band%20Plan%202013.pdf>

Read the IARU Region 1 paper Increased Amateur Satellite Service 144 MHz Usage  
[http://ukamsat.files.wordpress.com/2013/04/vie13\\_c5\\_03\\_increased\\_amateur\\_satellite\\_service\\_144mhz\\_usage.pdf](http://ukamsat.files.wordpress.com/2013/04/vie13_c5_03_increased_amateur_satellite_service_144mhz_usage.pdf)

## First and only 2 Metre DXCC in southern hemisphere

What is not generally known is that the first and the only 2 Metre DXCC ever issued in the southern hemisphere was awarded to **Bob McQuarrie, ZL3TY**, with 102 countries confirmed.

This year his name and call sign have been inducted in the New Zealand Hall of Fame.

Bob's preferred activities include DX-ing on 6 metres, 2 metres and EME, primarily the 2 metre band. His equipment on the latter band consists of 4x12 element K1FO Yagis, TS790A and GU74b amplifier.

Bob was also the first New Zealand amateur to achieve DXCC in mixed VHF (6 metres and 2 metres) using the latest digital technology combined with his CW skills and moonbounce.

Congratulations Bob

SARL

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## Digital TV: DVB-T transmitter dongle

Radio amateurs have been using USB DVB-T dongle receivers for sometime. A new dongle takes it one step further and provides transmit capability

The UT-100C is claimed to be able to transmit DVB-T digital TV across 50-950 MHz and 1200-1350 MHz in 1 kHz steps. The power output is only 1 milliwatt so an amplifier for the appropriate band would be required.

Further information on the UT-100C is at  
[http://www.hides.com.tw/product\\_cg74469\\_eng.html](http://www.hides.com.tw/product_cg74469_eng.html)

**GB3SQ**, believed to be the UK's first digital-only 1240 MHz ATV repeater went on the air near Bournemouth on October 20, 2013. The input is on 1244 MHz and the output 1304 MHz.

<http://www.gb3sq.com/>

G8AJN Digital TV  
<http://www.g8ajn.tv/>

## Is Amateur Radio portrayed correctly?

*{From the WIA, but I suspect a lot is relevant here in NZ—Editor}*

The activity we enjoy has a mixed image among the general public and sadly this is often reflected by some of those who are radio amateurs themselves.

The official definition of Amateur Radio includes the intercommunication between amateur stations solely with a personal aim and without pecuniary interest.

A similar stuffy definition can be used to describe a diamond as a 'carboniferous solid.' But like a diamond, Amateur Radio can be a many-faceted gem of dazzling beauty.

While a now old-fashioned view of Amateur Radio between World War II and the mobile phone or Internet age was attractive - that time has truly gone.

Do some of today's radio amateurs inadvertently live in the past or incorrectly promote their hobby as being a modern recreational and vocational activity?



Would you buy a new car built a decade ago, no matter how well it was marketed? Well, think about how all of us promote modern Amateur Radio.

The Wireless Institute of Australia with the clubs, individuals and stakeholders will hold the **PR4AmateurRadio Expo** in April 2014.

This is an opportunity of promotion. Will you be involved?

More details on this event can be read under the 'What's On' section of the [wia.org.au](http://wia.org.au) website.

[PR4AmateurRadio](#)

[Wireless Institute of Australia](#)

## Upcoming Happenings & Events

<i>Date</i>	<i>Happenings &amp; Events</i>
<b>1st November</b>	<b>NZART HQ Infoline</b>
<b>2nd November</b>	<b>Western Suburbs Junk Sale</b>
<b>3rd November</b>	<b>ZL1AIH Straight Key Night</b>
4th November	HF Net, 3.575 MHz, 19:30
5th November	VHF Net, 146.525 MHz, 20:00
11th November	HF Net, 3.575 MHz, 19:30
12th November	VHF Net, 146.525 MHz, 20:00
<b>15th November</b>	<b>NZART HQ Infoline</b>
18th November	HF Net, 3.575 MHz, 19:30
19th November	VHF Net, 146.525 MHz, 20:00
<b>20th November</b>	<b>Club General Meeting</b>
<b>24th November</b>	<b>NZART Official Broadcast</b>
<b>24 Nov-1 Dec</b>	<b>WARO YL Activity Week</b>
25th November	HF Net, 3.575 MHz, 19:30
26th November	VHF Net, 146.525 MHz, 20:00
<b>30 Nov-1 Dec</b>	<b>Bridge to Bridge Water Ski Classic (AREC)</b>

**1st December—KDMG Twin Sprint PSK & RTTY 80m**  
**6th December—NZART HQ Infoline**  
**7-8 December—NZART Field Day Contest**  
**18th December—Club General Meeting**  
**20th December—NZART HQ Infoline**  
**22nd December—NZART Official Broadcast**  
**22-23 February 2014—NZART JW Memorial Field Days**  
**17-18 May 2014—NZART Sangster Shield**

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

## AREC Event Operators Page

<b>WRC Rally NZ/ Possum Bourne Rally</b>	<b>June 2014</b>	<b>Organiser : ZL1BNQ</b>
Please contact the <a href="#">Section Leader</a> with your team information and he will pass it on to Auckland.		

<b>NZW SRA Bridge to Bridge Water-Ski Race</b>	<b>Nov 30—Dec 1 2013</b>	<b>Organiser : ZL2MGS</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>	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	

Kairangi Hill Climb	September 2014		Organiser : ZL1IC
<u>Position</u>	<u>Operator</u>		
Start			
1. First bend			
2. Intermediate bend			
3. Top of hill			
4. Paddock			
5. Hall corner			
6. Above hairpin			
Finish			
Colville Connection	March 2014		Organiser : ZL1PK
<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			
Ridge/Waikawau			

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 except January  
88 Seddon Road, Hamilton

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

**Homepage:** <http://www.z1lux.org.nz>  
**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:** Off air pending channel changes

*Cover Photo: Victoreen Civil Defense V-777-1 shelter radiation detection kit. [http://en.wikipedia.org/wiki/Civil\\_Defense\\_Geiger\\_counters](http://en.wikipedia.org/wiki/Civil_Defense_Geiger_counters)*

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