Ham Hum

February 2014

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

Next Meeting :

19th February 19:30—Club AGM

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NZART Examiners:	ZL1IC, ZL1PK & ZL1TJA		

From the Editor

This month is AGM time again. On 19th Feb at the clubrooms at 7:30pm. Various reports, elections and a social time afterwards.

The cover photo is of a ATLAS End Cap toroid which is part the ATLAS experiment, which itself is part of the larger CERN LHC experiment. This toroid is connected to another End Cap and a Barrel toroid which are together supplied with 16V at 24,000A and cooled with liquid helium.

Next Committee Meetings - 5th February & 5th March

SB PROP ARL ARLP004
ARLP004 Propagation de K7RA

Average daily sunspot numbers increased slightly this week from 111.4 to 113.3, but average daily solar flux declined by 22 points from 155.4 to 133.4. Although there seems to be no shortage of sunspots, they are anemic and not magnetically complex, and thus radiation from the spots is feeble, indicated by lower solar flux values.

Predicted solar flux for the near term is 135 on January 24, 130 on January 25-26, 135 on January 27, 140 on January 28-30, 150 on January 31, 155 on February 1-5, 160 on February 6-7, then 150, 140 and 135 on February 8-10, 125 on February 11-15, and 130 on February 16-20.

Predicted planetary A index is 5 on January 24-26, 8 on January 27, 12 on January 28, 5 on January 29 through February 6, 8 on February 7-8, 5 on February 9-16, 8 on February 17 and 5 on February 18-23.

OK1HH sends his latest geomagnetic predictions, which have mostly quiet conditions on January 24, quiet on January 25, mostly quiet January 26, quiet January 27, quiet to active January 28, active to disturbed January 29, quiet to unsettled January 30, mostly quiet January 31, quiet on February 1, quiet to unsettled February 2-3, mostly quiet February 4-6, quiet February 7-9, quiet to unsettled February 10-11, and mostly quiet February 12.

This weekend is the CQ World Wide 160-Meter CW Contest. It begins today, Friday January 24 at 2200 UTC and ends at 2200 UTC on Sunday, January 26. As there are no geomagnetic disturbances predicted for the weekend, conditions should be good. See http://www.cq160.com/rules.htm for info.

Jimmy Mahuron, K9JWJ of Salem, Indiana (in southern Indiana, about 30 miles NNW of Louisville, Kentucky) noted great 40 meter conditions with strong signals on January 21, and commented on the sunspot number. The sunspot number on January 20-21 was 131 and 141, with solar flux at 137.4 and 146.

Jeff, N8II sent this report from West Virginia on January 21:

"I was operating as W1AW/8 from Jan 3-7 here and worked mainly 75/80, 30, 15, and 10 meters. There were strong signals on 10 meters, but propagation seemed fairly unremarkable for SFIs running over 200. There was not a lot of activity on 10 from the USA in the afternoon and I didn't work that much from Eastern EU on 10 in the mornings. EU was pretty well gone on 10 at 1700Z.

"Signals from the USA were loud on 15 meter SSB Monday afternoon the January 6 as close as WI and IL with many of the louder ones more than 20 dB over S9. I received several calls from AK and HI with loud signals and then was treated to a

JA run which did not last that long starting about 2235Z until QRT at 2305. By my return at 2320Z on CW signals were markedly weaker from JA. Earlier on phone the loudest JAs were S9 with weakest ones S3-5, but they all were apparently hearing me quite well. The morning of the January 7 on 15 phone, I ran a pretty big raucous EU pile up working as far as UA4s in Russia until about 1430Z.

"HZ1PS and A71EA called in with good signals with the highlight being called by a VK7 long path! I had never worked eastern Australia on 15 via long path before. But that is pale compared to the Midway Island QSO long path on 10 CW around 1315Z in early December.

"Conditions were down a bit compared to last year in the NAQP SSB contest this past weekend January 18-19 according to several comments, but I managed 1276 QSOs in about 9 hours with some very good conditions on 20 and 75 meters. After dark, around 2230Z until just past 0100Z, 20 meters was wide open from Texas to the West Coast with loud KL7 and KH6 as well. Around 0430Z, 75 was open well to the West Coast with quite a few CA stations logged which was not possible around 0200Z. I never did work much west of MN, NM and MO on 160, but signals out to about 800-900 miles away were pretty loud. 10 was average with fairly weak signals from the West Coast and loud ones from the Rocky mountain area. 15 was better to the West Coast and stations as close WI, MN, KS, AR and TX were loud. Both 10 and 15 were wide open to AK with little activity and a few KH6's were on both bands with good signals. Near sunset a couple of ZS stations were good copy off the back of the beam on 20 and a UA0Q called in with a S9 signal around 0015Z.

"On January 16 at 0500, 80 meter CW was wide open to EU with E7, LY, SM, OM, SP, OK, OE, EW, DK, US5, and S5 stations all worked between 0500 and 0530Z. Most signals were S9 or better!

"On January 17 at 0103Z, 9V1YC was 579 long path on 20 CW, later than the usual long path here which peaks 2230-2345Z. Also worked with a strong signal at 0110Z was VK6FZM/MM about halfway around the world from me on their way to Amsterdam Island from Freemantle in VK6.

"Then in the morning of January 19, the Russian Olympic special stations were worked on 20 and 15. Some on 20 were S9+ while others were weak in the noise. Stations with 22 in their calls honor the Olympics (22nd Olympiad) and 11 the Paralympics. Also worked on 20 CW were the wild card stations R7378TM and R7979TM. A65CA was 579 long path on 20 at 1401Z and a few western EU stations were also heard long path."

Amid many news reports with observations about a quieting Sun, we get this from Scott Bidstrup, TI3/W7RI on Costa Rica:

"A friend of mine in Panama (HP3AK) is quite the 75 meter DX enthusiast, and is up every morning looking for whatever DX he can find in the DX window on that

band at gray-line from his QTH in the western Panama highlands. He reports to me that so far, this has been the lousiest DX season he can remember. With his monster high-gain phased delta loop array, he can still manage to work Japan only about every other day, and in past seasons, he'd be talking to his friends there every morning with great signals both ways. He's only worked a couple of new ones in the South Pacific all season.

"6 meters has been very quiet here lately, too. There hasn't been a really good opening on 6 from down here since the big F2 opening in December - just the odd, short sporadic-E opening now and again. Pickings have been pretty slim other than the usual daily TE (trans-equatorial) openings into Brazil and Argentina from here, and always with the same stations in evidence every day.

"10 meters is showing some decline here. The reliable, daily openings are still there, but signals are fewer and weaker, with South America beginning to predominate - which leads me to suspect what I am seeing is mostly a TE propagation mode. I've given up on 10 and have moved my PSK activity to 15, which has been quite hot - but only early in the morning and late in the afternoon."

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 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/.

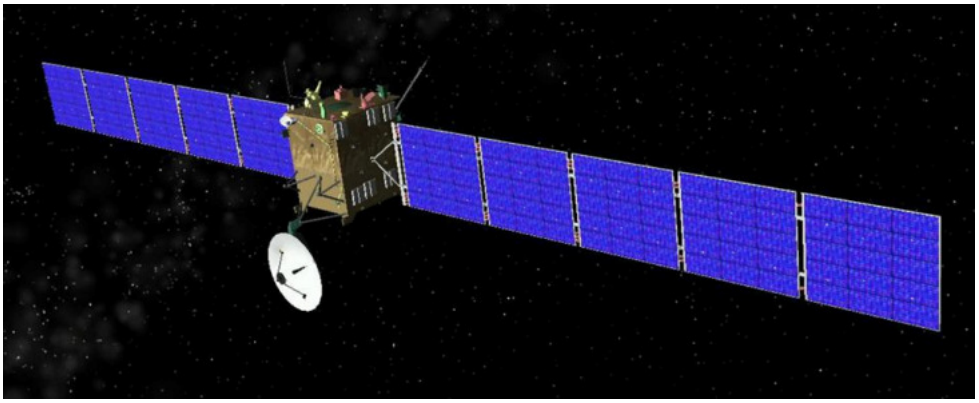
Monthly propagation charts between four USA regions and twelve overseas locations are at http://arrl.org/propagation.

Sunspot numbers for January 16 through 22 were 77, 95, 114, 91, 131, 141, and 144, with a mean of 113.3. 10.7 cm flux was 121, 128.8, 129.6, 127.5, 137.4, 146, and 143.3, with a mean of 133.4. Estimated planetary A indices were 3, 4, 2, 2, 3, 8, and 9, with a mean of 4.4. Estimated mid-latitude A indices were 2, 2, 1, 2, 4, 6, and 8, with a mean of 3.6.

Radio amateurs receive Rosetta signals

James Miller G3RUH reports reception of the Rosetta spacecraft signal at a distance of 805 million km from Earth using the 20 metre dish at the Bochum amateur

radio facility.



On the AMSAT Bulletin Board (AMSAT-BB) James Miller G3RUH writes:

Just a quick note about Rosetta X-band. I checked it this morning from Bochum.

2014 Jan 21 [Tue] 0934 utc
AZ 172°
El 11°
R 805 Million km
CNR 25.5 dB(Hz)
QRG 8421.786900 MHz at the spacecraft

Rosetta is about 14 dB weaker than Stereo A/B.

The system at Bochum has a G/T approx 40 dB(1/K).

Bertrand Pinel F5PL, located near Castelnaudary, France, 65km from Toulouse, successfully tracked Rosetta on January 21, 2014 at 10:00 UT, using a 3.5m dish antenna, see
http://blogs.esa.int/rosetta/2014/01/22/radio-amateur-diy-rosetta-tracking/

ESA Rosetta Blog
http://blogs.esa.int/rosetta/

ESA on Facebook
https://www.facebook.com/EuropeanSpaceAgency

-SouthgateARC

Icom celebrate their 50th anniversary

2014 is a very special year for the Icom family as it marks the 50th Anniversary of the founding of **ICOM Inc**.

Founded in 1954 by Tokuzo Inoue, the company has grown into a world renowned manufacturer of Business radio, Amateur radio, Marine radio, Aviation radio, Navigation products and Communications Receivers.
The company continues to look forward and recently the company has moved into digital Amateur radio products (D-STAR), digital two way radio products and systems including NXDN, dPMR and P25 products under its IDAS digital brand.

ICOM products, across the globe, have a reputation for unsurpassed quality and reliability …so important when so many ICOM customers depend on its products for their livelihood and safety. ICOM radios are tested to pass rigorous in-house tests as well as environmental tests to the US Military standard 810 specifications. Over 50 years of engineering and production excellence is built in to every ICOM product.
ICOM's Research & Development is renowned for developing ground breaking equipment. In recent years ICOM developed waterproof, buoyant radios for the marine market, advanced digital & HF radios for the Business and Amateur radio marketplaces. To show its commitment to design and innovation, just check out the touch screen IC-7100 HF radio or Icom's new Licence-free WLAN radio system.

ICOM is located in Osaka, Japan and is a rare example of an electronics manufacturer who has not shifted production to lower cost countries, it has kept its production base 100% in Japan and that commitment to quality is one of the founding precepts of the brand. The Wakayama Icom plant has an advanced production system to produce the entire range of multi-mode wireless communication products. Design and manufacture processes are certified to ISO9001/ISO9002 quality and ISO14001 environmental procedures.

Today ICOM looks very different to what it was 50 years ago. ICOM Inc is now a publicly held Japanese corporation; its stock is traded on the Tokyo and Osaka Stock Exchanges. The company has an international sales and service network around the world, today selling in over 80 countries around the World Subsidiaries can be found in the US, Australia, Germany, Spain and China.

Despite their size and success ICOM's founder Tokuzo Inoue is still a huge influence in the running of the company today.

Dave Stockley, Chairman of Icom UK said, 'Our relationship with ICOM Inc. began

in March. 1974 with us discussing ways that we could develop the brand and sales of the product range in the UK. Communication in those days was tricky there were only a few staff in Japan that could speak English. This became much less of a problem over the years as many more ICOM staff were able to speak English. Since then the relationship has been extremely successful and Icom UK are thought of as one of the most progressive companies in the ICOM family around the world. As for Mr Inoue, the founder, right from the beginning he has been a strong businessman, determined in the ways things should be done. However, right from the start, he has been a friend and inspiration and I am thankful for that.'

For details of special events marking this special occasion, please stay tuned to this website for more details.

TIMELINE

1954 Tokuzo Inoue founded Inoue Seisakusyo in Kyoto Prefecture, Japan.
1964 INOUE COMMUNICATION EQUIPMENTS CORP. established with Tokuzo Inoue as President.
1976 Icom (Europe) GmbH, established in Dusseldorf, Germany.
1978 Name changed to Icom Incorporated.
1979 Icom America Inc. established in Bellevue, Washington, U.S.A.
1982 Icom (Australia) Pty., Ltd. established in Melbourne, Australia.
1986 Hirano Plant completed.
1987 Tokyo R&D Centre established.
1988 Wakayama Icom Inc. established in Wakayama Prefecture, Japan.
1990 Stock was listed on Osaka Securities Exchange.
1991 Material Centre completed.
1994 Narayama R&D Office completed.
1997 Icom Spain,S.L. established in Barcelona, Spain.
1998 Asia Icom Inc. established in Taipei, Taiwan R.O.C. Acquired ISO 9001 certification.
1999 Icom Information Products Inc. established in Osaka, Japan.
2001 Stock was listed on Tokyo Securities Exchange. Stock was listed on the 1st Section of Tokyo & Osaka Securities Exchanges.
2003 Acquired ISO 14001 Certification
2006 Mr. Tokuzo Inoue assumed the position of Chairman. Mr. Tsutomu Fukui assumed the position of President
2013 Icom Inc. celebrates 50th Anniversary. Icom UK celebrates.....that's another story.

-SouthgateARC

iPhone Morse Code App Allows Students To Cheat In Tests With Vibrations

{One way to promote CW—Ed}

Students today are getting more creative when it comes to cheating during an exam. In the past, there are many ways to cheat like writing answers on the erasers before starting the test. Today, gadgets are utilized.

An application has been made available for the iPhone which is built solely for cheating. The application will relay recorded answers and pass it to you via vibrations. The way the app communicates with its users is through Morse codes.

Many students are reported to have used the app and claims that it works. It is as simple as keying in key topics, terms and phrases that will assist users completing the exam.

The funny thing is that students are willing to make an effort to learn Morse code instead of learning on the subject of their test. Morse code is not a walk in the park. It takes some time to master the way of communication and these students were able to achieve it.

Those students might have got away with it this round but since this way of cheating is coming to light, perhaps schools will look to ban smartphones in an examination hall. The app is available on Apple Store at the moment and those who are curious can try it for themselves.

You can view a screenshot of the app here.

ISS Ham Video Commissioning

A 2400 MHz digital TV transmitter is slated to be installed in the International Space Station Columbus module on February 5, 2014 by radio amateur astronaut **Michael Hopkins KF5LJG**

The Ham Video transmitter will be connected to the ARISS 41 antenna and to the KuPS power supply. The installation procedure comprises a check of the electrical connections. The transmitter will be powered on and will transmit a signal on 2.422 GHz. This check will be very limited in time, just enough to verify that the control LEDs are nominal. Then Ham Video will be powered off, ready for the first Commissioning Step.

The four Commissioning steps are scheduled February 8, 15 and 16 and March 5.

These dates are still to be confirmed and this depends on the signature of the Flight Rules relative to Ham Video.

Blank Transmissions will start immediately at the conclusion of Commissioning Step 1 and will continue till Commissioning Step 4.
This means that the ISS Ham Video transmitter will operate continuously during 25 days.

Ground stations with S-band capability can provide valuable information, which will be much appreciated. Basic data such as:
* noise level without signal
* AOS time (UTC)
* maximum signal level during pass
* LOS time (UTC)
can be reported by ground stations without the need of special DATV hardware and software.

ARISS is preparing a Ham Video Internet Reporting Program for collecting reception data from volunteering ground stations. These most needed reception reports will be gratefully accepted.

Read the full story at
http://amsat-uk.org/2014/01/26/
iss-ham-video-commissioning-blank-transmissions/

Upcoming Happenings & Events

Date	*Happenings & Events*
1-2 February	**NZART DX Weekend Contest**
3rd February	HF Net, 3.575 MHz, 19:30
4th February	VHF Net, 146.525 MHz, 20:00
10th February	HF Net, 3.575 MHz, 19:30
11th February	VHF Net, 146.525 MHz, 20:00
14th February	**NZART HQ-Infoline**
17th February	HF Net, 3.575 MHz, 19:30
18th February	VHF Net, 146.525 MHz, 20:00
19th February	**Club AGM**
22nd February	**Colville Connection (AREC)**
22-23 February	**NZART JW Memorial Field Days**
23rd February	**NZART Official Broadcast**
24th February	HF Net, 3.575 MHz, 19:30
25th February	VHF Net, 146.525 MHz, 20:00
28th February	**NZART HQ-Infoline**

1st March—Te Puke Junk Sale

14th March—NZART HQ-Infoline

19th March—Club General Meeting

28th March—NZART HQ-Infoline

30th March—NZART Official Broadcast

5-6 April—NZART Low Band Contest

11th April—NZART HQ-Infoline

25th April—NZART HQ-Infoline

27th April—NZART Official Broadcast

17-18 May—NZART Sangster Shield

7-8 June—NZART Hibernation Contest

5-6 July—NZART Memorial Contest

2-3 August—NZART Brass Monkey Contest

4-5 October—NZART Microwave Contest

2nd November—NZART Straight Key Night

6-7 December—NZART Field Day Contest

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	June 2014	Organiser : ZL1BNQ
Please contact the Section Leader with your team information and he will pass it on to Auckland.		

NZW SRA Bridge to Bridge Water-Ski Race	Nov 30—Dec 1 2014	Organiser : ZL2MGS

Position		Saturday Operator	Sunday Operator
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	September 2014	Organiser : ZL1IC

Position	Operator
Start	
1. First bend	
2. Intermediate bend	
3. Top of hill	
4. Paddock	
5. Hall corner	
6. Above hairpin	
Finish	

Colville Connection	22 February 2014	Organiser : ZL1PK

Position	Primary Operator	Secondary Operator	Other Operator
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.zl1ux.org.nz
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 Repeaters:	146.675MHz -600kHz split 438.725MHz -5 MHz split
ATV Repeater:	Off air pending channel changes

Cover Photo: ATLAS Magnet Toroid End-Cap. ATLAS Experiment © 2013 CERN

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