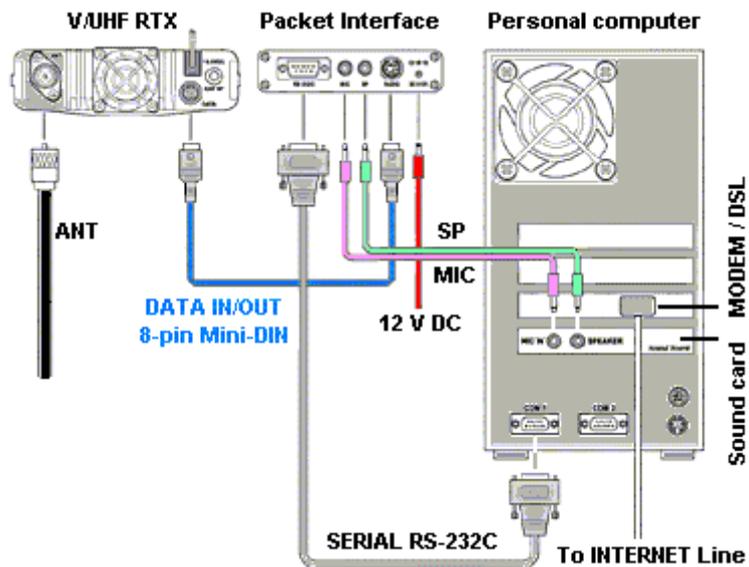


Ham Hum

September 2012



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



**Next Meeting : Special meeting with Br 81.
Sun 9th Sept 1:30pm at our clubrooms.
General meeting : 19th Sept 7:30pm**

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NZART Examiners:	ZL1IC, ZL1PK & ZL1TJA		

From the Editor

We are having a special meeting with Branch 81 (Waikato VHF Group) at our clubrooms on Sunday, 9th Sept, 2012, at 1.30pm. Paul Godolphin, ZL4AX, will be speaking on the History and Basics of Packet Operation, along with a demonstration of its use.

Our normal monthly General meeting will be happening on 19th Sept at 7:30pm. This will continue with the Market Day clean up, along with more CW training.

Robin (ZL1IC) is looking for volunteers to help out with the Kairangi Vintage/Veteran Hillclimb. A fun event for all. Contact Robin on 07-855-4786 or email robin.judy@xtra.co.nz .

It is with great sadness that I advise our club patron Fin Bruce (ZL4HI) passed away on the morning of 22nd August at Waikato Hospital. His funeral was held at Melville Methodist Church in Bader St at 2.30pm on Saturday 25th of August. Communications to James R Hill, Funeral Directors, 1004 Heaphy Terrace.

**Next Committee Meetings -
5th September & 3rd October**

SB PROP ARL ARLP034

ARLP034 Propagation de K7RA

Weak solar activity continues. Average daily sunspot numbers for the seven days of August 16-22 were down 23 points, or 30 percent, to 54.6. Average daily solar flux dropped a little over 16 percent, or 18.7 points, to 96. These figures offer a comparison between August 9-15 and the latest reporting period, August 16-22.

Solar flux is expected to rise above 100 soon, with predicted flux values from NOAA/USAF at 100 on August 24-25, 105 on August 26-27, 110 on August 28-29, 115 on August 30, and peaking at 130 on August 31 and September 1. The prediction shows September 2 with a flux value of 125, then 120 on September 3-5, 115 on September 6-8, 110 on September 9, 105 on September 10, then dipping below 100 on September 12-15. The next peak is expected in the three days following the Autumnal Equinox, with flux values at 135 on September 23-25.

Predicted planetary A index values are 5 on August 24-25, then 10 and 8 on August 26-27, then 5 again on August 28 through September 7, and 8 on September 8-9, then 5 on September 10-14, then 12 on September 15-16, 8 on September 17-18, and 5 again through the end of September.

OK1HH predicts the geomagnetic field will be quiet to unsettled on August 24-25, quiet to active on August 26, mostly quiet on August 27-28, active to disturbed on August 29, quiet on August 30-31, mostly quiet on September 1, quiet to unsettled September 2-4, quiet on September 5-7, mostly quiet on September 8-9, quiet to active September 10, quiet on September 11, quiet to unsettled September 12, quiet on September 13, and quiet to unsettled September 14-15.

Spaceweather.com reports "the Sun's x-ray output has nearly flatlined." Look at readings from 12 years ago, in the summer of 2000:

http://www.swpc.noaa.gov/ftpdir/indices/old_indices/2000_DSD.txt

Now compare those numbers with recent x-ray activity:

<http://www.swpc.noaa.gov/ftpdir/indices/DSD.txt>

The daily x-ray background flux is shown in the fourth column to the right of the daily sunspot number. Here is the x-ray flux shown in a graph for the past few

days: <http://www.swpc.noaa.gov/today.html>

The letters and numbers in the x-ray flux column in the previous two pages correspond to the values on the right side of the graph on the last page. Looking back in March, May, July and September of 2000 you can see higher numbers indicated by the letter C, but nothing at that level recently. The background x-ray flux is a good indicator for the level of energy from the sun charging the ionosphere. The more the ionosphere is energized, the higher the MUF or Maximum Usable Frequency is in general, although the MUF varies considerably according to time of day, season, and the end-points of the path under consideration.

Larry Godek, W00GH of Gilbert, Arizona wrote on August 23: "WOW! Is it ever all over the place today. To start with we had a short opening on 6 meters down TG9 (Guatemala) way. Then I went up to 20 meters to put in some time doing the WSPR thing. 2 watts to a 4 element Yagi up 30 feet is all I use on 20. In the time frame after my transmit cycle I had reports from LA9, VE6, YV4, VK2, KL1 plus other places around the USA. The beam was pointed to about 45 degrees (northeast). What good is a beam doing you if your signal is going every which way? Watching the WSPR map showed a lot of good long haul signals."

(The WSPRnet map Larry speaks of is at <http://wsprrnet.org/drupal/wsprrnet/map>. Note you can select which band you want to observe in a drop-down below the map).

"When I worked the TG9 station on 6 meters, the beam (which is atop the tower with the 20 meter beam) was also pointed off to the northeast. That's where his signal was strongest."

"Working 40 meters today around 2 PM (Arizona time) the band got really noisy with QRN. Signals were still good though and then the QRN went away. Since then signal strength has swung all over the place. Not slow drawn out QSB but fairly quick acting changes. This morning on 40 we had real short propagation to the southeast part of the state, no more than 150 miles. Then it swung around to where normal east-west signals became more prominent and the fellows south-east of here were out of the picture. Nothing really special about the K, A or SFI index at the time."

"I'd suggest folks take a look at that WSPRnet map when they go looking for DX. While it doesn't show every country on the air, you can at least get an idea of where propagation is good toward. Nice map features as well."

Thanks, Larry!

For more information concerning radio propagation, see the ARRL Technical Information Service 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://myplace.frontier.com/~k9la/>.

Sunspot numbers for August 16 through 22 were 34, 42, 56, 69, 52, 64, and 65, with a mean of 54.6. 10.7 cm flux was 98.3, 95.1, 97, 96.2, 96.2, 94.2, and 94.8, with a mean of 96. Estimated planetary A indices were 11, 10, 11, 12, 12, 7, and 6, with a mean of 9.9. Estimated mid-latitude A indices were 10, 11, 11, 10, 11, 7, and 6 with a mean of 9.4.



Amateur Radio Technical Article Archive

For the past 13 years **John G8MNY** has been producing technical bulletins for distribution by Packet Radio, now the collection of articles is available on the web.

The articles cover a wide range of subjects including Antennas, ATV, Broadcast, Modifications, Power Amplifiers and Portable and Mobile operation.

If you want to know how to make a Slim Jim antenna, a battery charger or a 12V Cow Fence for /P operation there's an article in the archive.

The extensive collection can be downloaded from <http://www.theskywaves.net/technical.html>

Caterham Radio Group
<http://www.theskywaves.net/>

-SouthgateARC

Ham Radio operator receives Mars photo

In this video **Randy Hall K7AGE** describes how he received a strange signal and picture on 20m.

The other night after checking into the Ham Nation 20 meter 14.268 MHz net, I tuned up the band to the 14.230 SSTV (slow scan TV) frequency and heard a strange signal followed by a picture.

Watch Ham Radio Operator Receives Mars Photo

<http://www.youtube.com/watch?v=MeG1d1cORpE>

-SouthgateARC

555 Timer IC designer SK

Hans Camenzind, designer of the 555 timer IC passed away on August 8 at the age of 78

Electronic Weekly says:

It was at Signetics where he invented the 555 timer IC. which was first sold in 1972 and is one of the all-time IC best-sellers. It is still in widespread use today. In 2003 it was said that 1bn 555s are manufactured every year.

Signetics never patented the 555, believing that once companies started patenting ICs and technologies they would all be at each others' throats in the law courts.

Read the Electronics Weekly story at

<http://www.electronicweekly.com/Articles/17/08/2012/54363/hans-camenzind.htm>

EE Times

<http://www.eetimes.com/electronics-news/4394166/Hans-Camenzind-dies>

-SouthgateARC

Retaining New and Young Amateurs

{From across the ditch in Oz, but relevant here as well}

The WIA highlight the need to support the new generation of radio amateurs once they have got their licenses.

Philip VK3JNI writes:

Many clubs and individuals do a wonderful job of training and assisting new or young amateurs to achieve their first amateur radio qualification, this is mostly at the Foundation level

As one of the WIA's assessment team, I often wonder if we are supporting our new and younger amateurs well enough after they walk out the door and into the wider world of amateur radio?

If the new operator does not have a member of the family or a mentor to assist with getting the gear together for the first station, I wonder if many will ever get or stay on air? This is where the support of a caring amateur radio club can greatly assist the new or young operator.

Just as the initial introduction to AR is greatly enhanced by a welcoming peer, who can relate to and understands the perspective operator.

After the assessment process, the need for ongoing friendly support is possibly even more important to ensure that the new or young operator feels welcome and develops their skill in the hobby.

If the interests are found to lie in the digital world, the Foundation Operator can find a lot of fun in receiving and decoding digital signals with a PC (or Mac) and the most elementary connections to the receiver.

Who will introduce them to this exciting simple connection?

Seeing the received text or fuzzy images appear on the screen may be just enough to encourage the new operator to want to improve the antenna or excite them enough to start to study for an upgrade of license. With help and encouragement many more may continue in the hobby well beyond the initial rush of excitement.

Philip – VK3JNI

- Source WIA News

ZL9HR DXpedition to Campbell Island

At this writing, we are on schedule and the project planning is well underway. The team is busily working on all aspects of the DXpedition.

As you may know, we have the landing permit in-hand and also the amateur radio license / call sign.

Some examples of what's happening behind the curtain at the moment include:

- Station location (as defined by the permit)
- Antenna placement planning (as defined by the permit)
- Discussions on propagation behavior and how we will adjust for conditions
- Operator mode preference
- Equipment testing and preparation for sea shipment
- Contract finalization with the boat that will take us to Campbell Island
- Generator testing (state-of-the-art Yamaha machines) and their preparation for shipment
- Petrol estimates (for generators), procurement, and planning for sea transit
- Preparation and submission of the required DX Team Safety and Communications plans to the New Zealand Department of Conservation (DoC)
- Coordination of team arrival in NZ, hotels and local transportation to and from boat at Bluff, NZ
- A DoC requirement for landing on Campbell Island is each team member must have emergency medical evacuation insurance (purchased by the individual team members)
- Up-front payments and deposits
- Scheduled the quarantine inspection (All of our gear must be unpacked (then re-packed) for inspection before departing NZ)
- We're beginning to receive donations from the major DX Foundations, DX Clubs and individuals from around the world.

With the individual operators funding the up-front cost of the DXpedition and their personal travel / living and while in NZ we will continue to seek assistance from the global DX-community.

We appreciate the interest and support from the global amateur community and especially from the:

- Northern California DX Foundation;
- The American Radio Relay League's Colvin Award Committee;
- The German DX Foundation, and
- The Lone Star (Texas) DX Association

Each who have made significant contributions, and the other clubs and individuals who provided financial support.

Our major corporate sponsor, to date, is Spiderbeam.

Of course, the overall sponsor of this DXpedition is the Hellenic Amateur Radio Association of Australia who is providing nearly all of the equipment that will be used on Campbell Island.

We'd be remiss if we didn't recognize the New Zealand Department of Conservation for their support of this DX-pedition. The DoC is permitting us to use several of the existing buildings which will provide shelter from the weather which we expect to be cool, windy and wet.

Our QSL policy, as described on the QSL Page, should satisfy the DX community:

- On-line uploads via satellite phone to ClubLog
- LoTW upload shortly after the DX-pedition
- LoTW confirmations at no charge for all contacts, no restrictions
- OQRS will be available at a reasonable donation to cover mailing expenses
- Direct QSLs with envelope \$2USD, (1 IRC + 1 USD) or 1 Euro for all destinations
- Buro cards to EB7DX at no charge

QSLing doesn't get any better than this!

Our goal is to give out as many All Time New Ones as humanly possible and to fill as many band slots as we can.

Thanks again for your interest and support. We'll update you again next month.

73,
ZL9HR team

- OPDX

Swains Island DXpedition

The leaders are happy to report that the DXpedition cargo has arrived in American Samoa. The international team of 20 operators are excited about this tent and generator operation. The island ranks number 31 in the DX Magazine most wanted list. Swains is about one mile in circumference, has only five permanent residents and no infrastructure.

The team will be running seven stations from 6 to 160 including 60m. They will be on CW, SSB and RTTY around the clock for 14 days. Great emphasis will be in working European stations. Plans are to update logs on a daily basis by satellite phone. Because there is no regular internet service, the team will have two pilot stations. Valerie, NV9L, will be the North American pilot while Col, MM0NDX,

will do the honors for Europe.

They and John/K6MM, the webmaster, will be the only contact to the team for their 14 day stay.

Due to changes in airline flights, they are now scheduled to depart American Samoa on Sept. 4th, for the 23 hour boat ride to Swains.

Everything will then be off loaded and taken ashore by a small boat. Along with the radio equipment, antennas, food, and tents, are 19 drums of gasoline for the seven generators.

The team of highly experienced DXers, contesters and Dxpeditors are 9V1FJ, AA4NN, DJ2VO, DL3DXX, K5AB, K9CS, K9CT, K9NW, N2TU, N4HH, N6HC, N6HD, NA6M, ND2T, SM5AQD, W6KK, W8GEX, W8HC, W8TN and WB9Z.

There have been several requests to listen into the general band, so please listen to the operator's instructions.

We are most grateful to NCDXF, INDEXA, and all clubs and individuals who have supported us. Like all major DXpeditions today, this is a very expensive trip. Total costs are estimated to be 200,000 USDs. Each member has paid 8000 USDs, plus his cost to get to American Samoa. Anyone who wants to help, can go to our website, www.nh8s.org and click on the donations link. We are most appreciative to any and all DXers that contribute to help defray the cost of the trip.

OQSL is available on the website for your convenience. QSL manager for cards is Joe Blackwell, AA4NN, and requests should be sent to him at:
Swains Island DXpedition
P.O. Box 5005
Lake Wylie, SC 29710
USA

LoTW will be posted six months following the DXpedition.

We would like to give special thanks to our support crew who has worked very hard for us. They include DL9RCF, I8NHJ, K6MM, MM0NDX, N1DG, N4XP, N7CQQ, NV9L, W6XA, W8AEF, W8CAA and Margaret Blackwell XYL of AA4NN.

The website www.nh8s.org provides more details.

Craig, K9CT

Joe, W8GEX

Co-Leaders

OPDX

Upcoming Happenings & Events

<i>Date</i>	<i>Happenings & Events</i>
3rd September	HF Net, 3.575 MHz, 19:30
4th September	VHF Net, 146.525 MHz, 20:00
7th September	NZART HQ Infoline
9th September	Kairangi Vintage/Veteran Hillclimb
9th September	Special Meeting with Br 81
10th September	Break-In copy deadline
10th September	HF Net, 3.575 MHz, 19:30
11th September	VHF Net, 146.525 MHz, 20:00
17th September	HF Net, 3.575 MHz, 19:30
18th September	VHF Net, 146.525 MHz, 20:00
19th September	Hamilton Club General Meeting
21st September	NZART HQ Infoline
24th September	HF Net, 3.575 MHz, 19:30
25th September	VHF Net, 146.525 MHz, 20:00
30th September	NZART Official Broadcast

19th September—Hamilton Club General Meeting
5th October—NZART HQ Infoline
6-7 October—NZART Microwave Contest
17th October—Hamilton Club General Meeting
19th October—NZART HQ Infoline
26-28 October—Bridge to Bridge (AREC)
28th October—NZART Official Broadcast
31st October—Hamilton Section AREC Meeting (AREC)
4th November—NZART Straight Key Night
4th November—NZART HQ Infoline
10th November—Break-In copy deadline
10-17 November—Silver Fern Rally-North Island (AREC)
18th November—NZART HQ Infoline
27th November—NZART Official Broadcast
30th November—AREC Section meeting
1st December—NZART VHF+ Field Day
30-31 March 2013—NZART Technology Conference - Auckland
1-3 June 2013—NZART Conference—Masterton

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 2013	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	26-28 October 2012	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.		
I.		
J.		
K.		
L.		

Kairangi Hill Climb	Sunday 9th September 2012		Organiser : ZL1IC
<u>Position</u>	<u>Operator</u>		
1.			
2.			
3.			
4.			
5.			
School Cycling	July 2013		Organiser : ZL1IC
<u>Position</u>	<u>Operator</u>	<u>Position</u>	<u>Operator</u>
1.		5.	
2.		6.	
3.		7.	
4.		8.	
Colville Connection	March 2013		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			
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: Packet interface as detailed at <http://www.astrosurf.com/luxorion/qsl-clusters.htm>

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