

Ham Hum

July 2012



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



Next General Meeting : 18th July
Hamilton Market Day : 11th August

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From the Editor

Hamilton Market Day—11 August
See page 6 for details.

(picture by ZL1GWP)



With thanks to ZL1TPH.....



**Next Committee Meetings -
4th July & 1st August**

SB PROP ARL ARLP026

ARLP026 Propagation de K7RA

Sunspot activity continued to drop until early this week. Average daily sunspot numbers were 26.3, down over 58 points from last week's numbers. Average daily solar flux declined to 92.8, down over 33 points from last week's average.

The weekly sunspot number average has declined since the May 31 through June 6 period, when it was 130.4, followed by 116.1 the next week, 84.6 the next and 26.3 this week.

In next week's bulletin we will have the latest 3-month moving average of daily sunspot numbers, for April-May-June, and it looks like it will be higher than the previous 3-month average, March-April-May. Also, yesterday was day number 180 for 2012, and sunspot numbers are running higher this year. The average sunspot number over those 180 days is 82.4. Previous years 2003-2011 had yearly sunspot number averages of 109.2, 68.6, 48.9, 26.1, 12.8, 4.7, 5.1, 25.5 and 29.9, so 82.4 is quite a jump.

In last week's bulletin ARLP025, we reported the average daily sunspot number as 87, but it was really 84.6. This is because we reported what may have been a preliminary sunspot number of 46 for June 20, but the sunspot number for that date was 29, recorded at <http://www.swpc.noaa.gov/ftpd/indices/DSD.txt>.

Geomagnetic conditions over the past week were quiet. Average planetary A index was 5.7, down from 12.6 last week, 9 the week before, and 13.4 before that. The quiet A index for this week was exactly as it was on the week of May 24-30, 5.7.

The latest prediction from USAF/NOAA is from June 28, and it differs very little from the June 27 forecast used in this week's ARRL Letter. It shows geomagnetic activity peaking on June 30 through July 3, probably from a coronal hole spewing solar wind. There is also a thirty-percent chance of M-class solar flares today.

Predicted planetary A index for June 29-30 is 10 and 18, followed by 15 on July 1-3, 8 on July 4, 5 on July 5-7, 8 on July 8-9, and 5 on July 10-25, and then on July 26-31, 10, 18, 15, 15, 15 and 8. This is an echo of the activity this week, based on the 27.5 day rotation of our Sun relative to Earth.

The predicted solar flux is 115 on June 29-30, 120 and 125 on July 1-2, 130 on July 3-5, 135 and 140 on July 6-7, 135 on July 8-9, 130 on July 10-11, 125 on July 12-13, then 120, 115, 110 and 105 on July 14-17. Solar flux may dip below 100 around July 19 and rise above 100 after July 28. But that is a long way out, and difficult to predict.

OK1MGW of the Czech Propagation Interest Group predicts quiet to unsettled geomagnetic conditions on June 29, quiet to active June 30, active July 1-3, quiet to unsettled July 4-7, quiet to active July 8-9, and mostly quiet on July 10-12.

Scott Woelm, WX0V of Fridley, Minnesota commented on the recent lack of sunspots, and may have discovered a correlation of some sort. He wrote, "I have found the reason for the recent decline in sunspots! My Dad, David Woelm, W0ELM, just got a new radio." Good thinking! He also wrote, "For those interested, I have some images of the recent Annular Eclipse in May, and the Venus Transit in June, on my web site:

<http://bluelightpix.com/images/2012/images/june-1-5-moon-and-venus>

<http://bluelightpix.com/images/2012/images/may-2012-eclipse>

The second link has a great shot of the Annular Eclipse that was taken in Texas by Bob Adams, KC0JJ, of Crystal, Minnesota."

Conditions were pretty good for 2012 Field Day last weekend, meaning there was some solar activity, and geomagnetic conditions were nice and quiet. Some past Field Days didn't have it so good.

At <http://wdc.kugi.kyoto-u.ac.jp/kp/index.html> you can download planetary K and A indices all the way back to 1932, and with a perpetual calendar you can find the fourth full weekend in June for any year. 1988 ARRL Field Day on June 25-26 looks particularly bad, and so does June 23-24, 1984. Either may have been the year I was out with the Western Washington DX Club, and a sudden ionospheric disturbance hit late Saturday morning, making all receivers appear dead. You can see by downloading the data for 1988 that the K index hit 4 and 5 on Saturday morning, then conditions recovered into the evening, only to have a repeat on Sunday morning, a double-whammy.

Bill Mader, K8TE, president of the Albuquerque DX Association sent a report on the W5UR Field Day operation at Torrance County Park in Edgewood, New Mexico:

"Conditions were generally very good for FD excluding 6 and 10 meters. Our 10 meter CW station made just one contact and 6 meters made just 48 contacts with the majority during an opening to California Saturday evening. Propagation for both was disappointing compared with previous years."

"15 and 20 made up the bulk of the SSB and three CW stations QSOs and were hot! We ran 20 well into the night and started again early in the morning. Our GOTA operators ran stations on both 20 and 15 for hours in a row. 40 was good and we used 75 and 80 to advantage after running out of new ones on 40."

"Overall, Old' Sol helped this year, rather than hindering us. Getting up dipoles from 45 to 60 feet high took advantage of good propagation as did our A4S at 40 feet. We seldom had to search and pounce keeping our QSO rates up. Our last hour on 15 meters in the SSB tent produced 99 QSOs thanks to all three components: good propagation and antenna plus an excellent operator. We're looking forward to FD 2013, after we clean the desert dust off everything. Our preliminary

QSO estimate is 5,100 and with lots of CW plus bonus points 2012 may be our best scoring FD ever."

Gabor Horvath, VE7JH reported on the Cowichan Valley Amateur Radio Society operation (VE7CVA) from Duncan, British Columbia, on Vancouver Island:

"20 meters was open till about midnight. We had a great run on 15 meters, 6-10 PM. 10 meters barely popped open, I think we made less than 10 QSOs. 40 meters seemed to be real good with action starting at about 7PM till dawn. 80 meters did not produce much long distance stuff, but was fairly quiet and we had many contacts out to about 2000 miles."

Walt Aulenbacher, WA5AU reported on the Hays/Caldwell Amateur Radio Club KE5LOT operation from San Marcos, Texas. "We found conditions on 15 meters to be very good (lots of contacts) and of course also on 20 meters, but 10 meters and 6 meters not great. We made some contacts on 10 meters and 6 meters despite conditions."

Jed Petrovich, AD7KG of the Utah DX Association reported on the K7UM operation, just east of Fairview, Utah in the mountains at 9,000 feet. "We operated three stations for the entire 24 hours. We only made two contacts on 10 meters. On Saturday, it didn't appear there was much activity on 15 meters. We checked this with a P3 panadapter and our 15 meter station was getting few responses to his CQs. The bulk of our nearly 3400 contacts (including dupes) were on 20 and 40 meters, both CW and SSB. On Sunday morning, we were still working 20 and 40. However, I switched over to 15 CW just after 10:00 AM MDT and found a lot of activity. I had some good runs going for nearly two hours until the end of the event. One of the other stations was also working 15 SSB during the same time frame Sunday morning. However, he didn't do quite as well. N1MM reported my run rates around 90 per hour, the SSB station was about 40 per hour. During the same time frame, the 20 meter phone op was going strong with run rates over 150 per hour."

"We did have an antenna (dipole, up about 60 feet) for 80 meters, but the band seemed very noisy. Hence, very few contacts were made on 75 meter phone."

"All in all, propagation seemed fairly good. Last year, for example, one of our phone ops made 160 contacts on 10 meters during the last 2 hours of the event. We periodically checked 10 meters, but didn't find much going on."

Thanks, Jed!

Kevin Lahaie, K7ZS of Hillsboro, Oregon wrote: "VERY interesting band conditions. In a word, 10 meters was a big ZERO, 20 meter paths were very atypical, just never really opened up like you would expect. But, the big surprise was 15 METERS. It was open to the East Coast at the opening bell, and it stayed open to the EAST COAST all day, until around 10 PM. A little north south, but just an amazing, solid long skip that defied time of day! We made 950 contacts on that band, 200

more than 20 meters!"

"Overall I don't think propagation was very good, but the real anomaly to me was the solid and long endurance 15 meter opening to the east coast. I will be curious if east coast stations were able to work each other with the long skip?"

W5BCR, the Bosque County Amateur Radio Club, operated from Clifton, Texas. Danny Rymer, K5FDR reports: "I believe this was my best Field Day ever. I made a contact in Maui, Hawaii and I was able to have the contact talk to a few Cub Scouts who came to see what Field Day was all about. You should have seen their eyes and the smiles on their faces when they realized they were actually talking to someone in Hawaii. A reporter took a few pictures for the local newspaper while the boys were talking to the contact in Hawaii."

"Other members of the W5BCR club made numerous contacts throughout the U.S. and Canada, and several of the club members let the Cub Scouts talk to their contacts on the other end. Those contacts really made a big impression and made the Cub Scout's day."

"Conditions were very good here in Texas, as a club we worked all of the legal frequencies that were allowed per the rules. Most of the contacts were made on 20 meters and 40 meters (not too surprising) as well as a few other bands. We made a contact in Germany during the late evening and Slovenia at 0621 UTC on 14.272. All in all, this field day was better than any field day that I have ever participated in with any club, and that goes even for my first field day."

Six meters apparently didn't produce results for Field Day, but Julio Medina, NP3CW of San Juan, Puerto Rico (FK68wl) reported:

"On June 21, 2012 on six meters I worked TI5KD at 2306z, and HK4BKB at 2313z. On June 22, 2012 worked ON4GG at 1353z, F6GCP 1309z, PA2M and F6ARC at 1309z, F8DBF and OE1WWA at 1710z, FJ/W6JKV in St. Barthelemy at 1842z and WD4AB in EL95 at 1852z."

Last week we mentioned old military surplus Command radios converted to SSB, and John Laney, K4BAI of Columbus, Georgia wrote: "The conversion of a Command Set to SSB was called the 'W2EWL conversion'. I think a ham with that call wrote an article for QST about it. I bought one in the late 1950s or early 1960s that someone else had converted. It would work 75 meters well and worked a bit on 20 meters. I think I had figured out a way to use it on CW also."

At <http://smg.photobucket.com/albums/v652/ranickel/Cheap%20and%20Easy%20SSB/> you can see photos of the conversion.

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 Infor-

mation 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://myplace.frontier.com/~k9la/>.

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

Sunspot numbers for June 21 through 27 were 13, 13, 13, 24, 14, 28, and 79, with a mean of 26.3. 10.7 cm flux was 97.7, 88.4, 84, 85.3, 88.6, 99.2 and 106.3, with a mean of 92.8. Estimated planetary A indices were 3, 5, 4, 5, 9, 8, and 6, with a mean of 5.7. Estimated mid-latitude A indices were 3, 5, 4, 5, 5, 7, and 8, with a mean of 5.3.

ZL1LINK 88.5Hz CTCSS

Hi All

Due to the ongoing interference issues that are currently affecting many of our local repeaters at present, it's become necessary to install CTCSS access to the ZL1LINK Echolink on 146.450MHz at Pukekohe.

This may seem like bad news, but in fact, it has (surprisingly) improved the range and signal quality from ZL1LINK, and has removed any possibility of the link being held open by unwanted noises on the frequency.

Please use your rig's tone-encode facilities to send a 88.5Hz CTCSS tone on all transmissions. This is very easily done on 99% of modern rigs, (even the \$50 Chinese handhelds). I would suggest storing the settings and frequency for this use in a separate memory channel, with the settings permanently embedded, so that it becomes a simple matter to select the channel and talk without any further adjustments needed.

In case of difficulty please don't hesitate to contact me. The North Shore 70cms repeater also uses the same system, and it is likely to become more common as the spectrum get busier in the future. Now is a good time to get familiar with the setup in your rig!

- ZL4AX

Hamilton Amateur
Radio Club

MARKET DAY

Saturday

August 11th, 2012

Hamilton Table Tennis

Club Rooms

Edgecumbe Street

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

Web: http://z11ux.tripod.com/market_day.html

You Know You Are A CW Addict If...

You know you are a CW addict if...

- 1) Rather than saying "Huh?" you say "didi dahdah didit."
- 2) You wake up in the middle of the night with a million crickets chirping and all you can think of is trying to bust the pile-up.
- 3) Rather than talk in your sleep, your fingers twitch out code.
- 4) The first time you heard Beethoven's 5th symphony all you heard was "V" being sent over and over and over and... Then it dawned on you why it is called the 5th symphony.
- 5) You find yourself saying "didahdit" rather than "Yes."
- 6) Someone calls you a "freak" and you yell back "Up 5."
- 7) Rather than make rude gestures at idiot drivers, using your car horn, you tap out that they are a "!*@@###!!."
- 8) You can pick out that QRP 3PY in a massive pileup but don't hear your wife calling from the next room.
- 9) On your honeymoon night, you pretended to go to the bathroom so you could work the Heard Island expedition on your RockMite.
- 10) You've gotten in a fist fight on field day over iambic A-mode versus iambic B-mode.

-NT2F

Thanks to Steve (ZL1TPH) for the following photos of NZART Conference 2012 in Nelson.





**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 & Events</i>
2nd July	HF Net, 3.575 MHz, 19:30
3rd July	VHF Net, 146.525 MHz, 20:00
6th July	NZART HQ Infoline
7-8 July	NZART Memorial Contest
9th July	HF Net, 3.575 MHz, 19:30
10th July	VHF Net, 146.525 MHz, 20:00
10th July	Break-In copy due
14-15 July	IARU HF World Championship Contest
16th July	HF Net, 3.575 MHz, 19:30
17th July	VHF Net, 146.525 MHz, 20:00
17th July	Franklin Junk Sale
18th July	Hamilton Club General Meeting
20th July	NZART HQ Infoline
21st July	Whangarei Used Equipment Sale
21st July	VK/Trans Tasman (160m all modes & 80m CW/Digi)
23rd July	HF Net, 3.575 MHz, 19:30
24th July	VHF Net, 146.525 MHz, 20:00
28th July	Waitakere Sprint (Phone)
29th July	NZART Official Broadcast
30th July	HF Net, 3.575 MHz, 19:30
31st July	VHF Net, 146.525 MHz, 20:00

3rd August—NZART HQ Infoline
4th August—Waitakere Sprint (CW)
4th August—NZART Brass Monkey Contest
11th August—Hamilton Market Day
15th August—Hamilton Club General Meeting
17th August—NZART HQ Infoline
26th August—NZART Official Broadcast
29th August—Hamilton Section AREC Meeting (AREC)
5th October—NZART HQ Infoline
6th October—NZART Microwave Contest
19th October—NZART HQ Infoline
28th October—NZART Official Broadcast
31st October—Hamilton Section AREC Meeting (AREC)
4th November—NZART Straight Key Night
10-17 November—Silver Fern Rally-North Island (AREC)
30th November—AREC Section meeting
1st December—NZART VHF+ Field Day
Easter 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	December 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 September 2012		Organiser : ZL1IC
<u>Position</u>	<u>Operator</u>		
1.			
2.			
3.			
4.			
5.			
School C ycling	July 2012		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 B y			

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



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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

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: Sharon Dawson, Managing Director, ICOM New Zealand at NZART Conference 2012 in Nelson. (thanks to Steve ZL1TPH for the photo).

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