

# Ham Hum

April 2008



The official newsletter of  
The Hamilton Amateur Radio Club Inc  
Branch 12 of NZART - ZL1UX  
85 years and still going strong



**Next General Meeting**  
**Club Dinner—7 April 2008**  
**7:00pm : Valentines**

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2m net—Vacant			

## **From the Committee**

The May Meeting will be "Remit Night". The meeting will be on the 3rd Wednesday in May (May 21) at the Clubrooms.

There are 11 Remits for Conference this year, and this is your opportunity to input into NZART in this manner.

It does not matter if Jono and I take split decisions from the branch down to Conference, as when we, as the Branch Delegates vote on the remits on your behalf, if we have 5 members voting for a remit and 15 against, that is how we vote. You may also abstain on voting on a remit if you wish. Your voice is heard. We will be recording numbers who vote for, against and abstentions, not names unless specifically requested to. We will also be recording any comments that you may wish us to make on your behalf.

So – who can vote at Remit night? Any NZART member who is attached to Branch 12. Branch 12 will have a list of NZART members who are attached to the Branch, and only those people can vote and discuss remits. A Branch 12 NZART member who is not attached to our Branch cannot vote or enter discussion at a Branch 12 Remit Meeting. They must vote at the Branch that they are attached to. (Some may wish to Phone or e-mail Debby at NZART and change their Branch attachment details to Branch 12 – they can.)

We must discuss all of the remits. Some are "black and white" and will not attract too much discussion. One remit is dependent on another passing at Conference. If this remit does not pass at Conference, then the second will be withdrawn. Although this is the procedure at Conference, we must discuss this second remit within the Branch, no matter how we vote on the first.

Some remit nights we only have a handful of people attend. This meeting is probably the second most important meeting of the year. Please ensure that you are at this meeting. Please also bring your March April Break-In.

Tony ZL1UD and Jono ZL1UPJ

## **Next Committee Meeting - 7 May 2008**

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## **SB PROP ARL ARLP013**

### **ARLP013 Propagation de K7RA**

ARRL Headquarters is closed for Good Friday on March 21, so this bulletin is coming out a day early, and on the Vernal Equinox.

We had a few more days with visible sunspots over the past week. Sunspot numbers on March 15-17 were 12, 12 and 11. Over the past month we seem to have a single sunspot appear for a few days, then fade away or rotate out of view, then another pop up after four or five days. Take a look at sunspot numbers since January 1 at,

[http://www.swpc.noaa.gov/ftplib/indices/guar\\_DSD.txt](http://www.swpc.noaa.gov/ftplib/indices/guar_DSD.txt).

Dale Drake, W7GMY of Lake Helen, Florida asks, "Just a curious question on the cycle numbers. How do they come up with cycle numbers? Cycle 24 would indicate at 11 years per cycle that it is 253 years in recording the cycles."

Dale was surprised to learn that daily sunspot records do stretch way back over hundreds of years, and Cycle 1 in fact peaked a quarter century prior to America's Revolutionary War. Check the WM7D web site at, <http://wm7d.net/hamradio/solar/historical.shtml> to see graphs of Cycles 1-23.

Paul Kiesel, K7CW of Tahuya, Washington sent a fascinating article translated from the September 2006 issue of Japanese radio magazine CQ Ham Radio. JE1BMJ wrote about surprising long distance 6-meter polar propagation from Japan to Europe with sporadic-E at the summer solstice. He doubts this is multi-hop propagation, even though the long distance suggests this, because the signals don't seem to be as dispersed or scattered as one would expect from multiple hops.

Instead, JE1BMJ posits that the mechanism is PMSE, or Polar

Mesosphere Summer Echo, a radar echo phenomenon. Rather than taking several hops, the signal would be refracted through the E-layer for a long distance following the curvature of the earth, before exiting and being heard in Europe.

There was a great deal of mail this week on possible auroral-E propagation in the summer on 6 meters, when the K index is high and there is backscatter via aurora. But while the normal auroral communications sound distorted, E-layer propagation will arise which is not at all distorted.

K7CW reports an opening from the Pacific Northwest on 6 meters to W4 and W5 on October 20, 2007. There was aurora, but at the same time this propagation over long distance that did not seem to be via aurora, sounding very strong and clear. K7CW wonders if this might be an example of Snell's Law, which addresses refraction along an interface between two mediums.

Ray Perrin, VE3FN of Ottawa, Ontario wrote about possible auroral-E propagation while operating from the arctic in Iqaluit, on Baffin Island at Frobisher Bay in Nunavut at 63.75 degrees north latitude, 68.52 degrees west longitude. Ray made several business trips there in 1999-2002. Iqaluit is where the VE8BY 6 meter beacon is located, in grid square FP53.

For 6 meters Ray used a wire dipole tied to a rock thrown from his bedroom window in his temporary housing, and another dipole made from two telescoping antennas mounted on his porch.

Ray goes on to say, "So what is the cause of auroral E? Is there any relationship to the occurrence of auroral E and the sunspot cycle? Some have suggested that auroral E may occur when the aurora becomes weaker. If this were so, then one would expect to hear auroral E on, say, 50 MHz when there is 'buzz' aurora on 28 MHz. In other words, as the MUF rises, one would first experience auroral E

and then straight 'buzz' aurora. But if this were true, one would expect to hear auroral E frequently on 50 MHz (at mid latitudes) when, in fact, I believe it is quite rare at mid latitudes. And one would expect to observe auroral E quite frequently on 144 MHz when 50 MHz is open on 'buzz' aurora, but it isn't intense enough to propagate 'buzz' aurora on 144 MHz. Once again, this doesn't wash as auroral E on 144 MHz seems to be very rare at mid latitudes. I once thought that ordinary 'buzz' aurora was related to paths that were more or less east - west whereas my QSOs from FP53 (auroral E) were predominantly north - south. However, my QSO with OX3SA and frequent reception of the OX beacon involve east - west paths -- and they were all auroral E."

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### A Puzzle

What are the next two letters in this sequence?

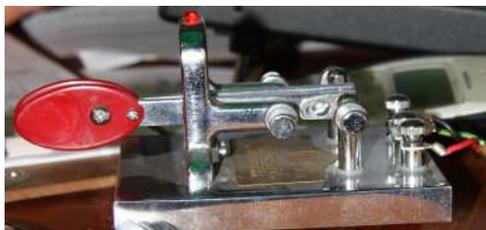
A E F H I K L M N \_ \_

Answer elsewhere.

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### “Jock White” Memorial Field Day or “How to fix a dipole quickly”

The Jock White Memorial Field Day event was a fun time for all. Yes, it was raining. Yes, it was a bit cold at times. Yes, 40m was hard going all weekend. But, our hobby wouldn't be much fun if everything was easy. So, while some other NZART branches had to abandon plans due to much worse weather than we experienced, we pulled out our raincoats and got on with it.



The Tents went up very quickly and proved to still be waterproof. Those of us who forgot to bring a raincoat (like me), found out that rain isn't too bad when you are working to setup furniture in the tents for equipment



and operators. As luck would have it the tents were all done long before we could start on the aerials, so we had a long coffee break.

The appointed hour arrived and both dipoles went up, one for 80m and the other for 40m. As a large metal structure was being built in a nearby corner of

Hinemoa Park, we put a lot of thought into using it as an active part of the aerial, or just as a nice high anchor point for the dipole. We decided that climbing around on wet metal wasn't going to be very safe, so we went with the original plan. That gave us about 2 hours to test everything.

Testing proved to be a good idea as we found that the 40m station wasn't receiving anything. After some work to isolate the problem, we decided it was either the aerial feeder, or the aerial itself. It turned out to be a dry joint on the SO239 connector in the middle of the dipole. Or maybe it was the PL259 on the coax which seemed to be missing a bit of solder and seemed to be suffering a bit from age. In any case, a gas powered soldering iron was produced, with thanks to ZL1TNO, and the connection to the SO239 repaired. The feeder was replaced, with the suspect feeder taken away for later repair, with thanks to ZL1IC.



With a transceiver now receiving RF from the 40m aerial system it was time for another coffee and more socialising before the event got started on air.

## Colville Connection 2008

Once again this year the Hamilton Club Section of AREC was involved in providing safety communications for the seventh Kona Colville Connection mountain bike race. The event we provide cover for is the



72km race from Colville. The event runs north east to Stony Bay on the East Coast by mostly shingle road, thence by dedicated MTB track over the Moehau Range to Fletcher Bay on the North end of the Coromandel, from there by mostly shingle road down the West Coast of the Coromandel back to Colville. The course rises to a maximum of just over 500m in the Moehau Range. There are two other races also run that day; a 40km technically challenging event which goes to well over 500m elevation and a



24km more straight forward one which only gets to 200m elevation.

Communications are carried out on 80m between base at Colville school and the outposts at Stony Bay, Fletcher Bay, and Fantail Bay (on the West coast). Locally near the top of the

track over the Moehau Ranges we have our 2m STSP and two handheld stations at strategic positions on the big downhill stretch to Fletcher Bay.

Briefing is held at 0830 on Saturday and the race starts at 0900. The last riders usually arrive back around 1700. This year 516 riders lined up at the

start for the 72km event. One of the classes within the race is for Single Speed bikes!

Operators volunteering this year were: ZL1PK, ZL1DGK, ZL1LD, ZL1UPJ, ZL1TNO, ZL1UD, ZL2TW, ZL1IC, ZL1TCE, ZL1KK, ZL1KN. Unfortunately two operators had to withdraw late in the piece. One operator had even got into position at the North end of the Coromandel and then had to be ferried back to Thames and thence to Auckland airport (many thanks to Jim ZL1AVR) on the Friday. However we still had sufficient operators for all sites, including the two person requirement at the outposts, (thanks to Jono's dad for helping out at the last moment) and at base.

The event went very smoothly in brilliantly fine weather with relatively few minor injuries. As in other years the St John Ambulance were very grateful for our communications as there is very intermittent contact on their channels and on cell phone at the critical points. The biggest crisis was faced by Iain & Ngaire as they were travelling back to Colville from Stony Bay after the event. They came upon a truck and trailer unit stuck in the road verges and totally blocking the road. An ambulance following them with a patient, elected to go for the long detour down the East coast and across to Coromandel. Iain & Ngaire held high hopes that the truck could be moved and they would be able to continue so they waited. That was how it turned out once a large wheeled tractor got to the site and pulled the truck out.

- ZL1PK

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### **Club Dinner**

The Club Dinner on 7th April will replace the scheduled 16th April meeting which has been cancelled due to lack of access and parking during the leadup to the V8 Supercar event.

## Lighthouse Weekend

Friday August 15th to Sunday August 17th 2008

HARC presently has a team of 3 for this event (ZL1TCE, ZL1UPJ and ZL1UD). We are looking for a 4<sup>th</sup> person to join us.



We will be taking 2 vehicles, mine and either David or Jono's. The person who joins us will be required to assist with fuel and food costs.

The lighthouse weekend is not a competition, it is an event. We can expect 3 other New Zealand stations using specialised calls (ZL6LH, ZL4ACG and ZL6CC) and a number of other individual portable stations operating over the weekend. We will be using ZL6LIT, a call Branch 12 has obtained for use during the weekend.

We are going to Cape Egmont Lighthouse this year, and have permission from Maritime NZ to do so. Next Year who knows? We are also registered on the International Lighthouse Lightship Website for Cape Egmont <http://illw.net>.

We will be operating 80, 40, 2 and .70 on Sideband, CW and FM. We may venture up to 20M depending on band conditions and other factors.

(During early preparations for this event Jono and I discussed putting the big Club Spotlight on a kayak and anchoring it in the middle of Hamilton Lake.)

This is going to be a fun weekend. If you are interested, phone Tony on 850-5218

-Tony ZL1UD

**Club Dinner:**

**Monday April the 7<sup>th</sup>**

**7:00 pm**

**Valentines**

*(on the corner of Clarence Street and Anglesea Street)*

**\$19.95 per person not including Drinks**

The Club Dinner will replace our normal April Club meeting. There will be no meeting at the Clubrooms owing to lack of access during the V8's.

The club encourages members to bring their partners to this dinner. The more – the merrier. The venue and date have been chosen to keep prices down, and quantity and quality up.

Please phone Tony ZL1UD on 850-5218 to give the numbers attending by Saturday March 29<sup>th</sup>. We need to book tables.

## Upcoming Happenings & Events

<i>Date</i>	<i>Happenings &amp; Events</i>
1st April	VHF Net, 146.525 MHz, 20:00
<b>5-6 April</b>	<b>Thelma Souper Memorial WARO Contest</b>
<b>5-6 April</b>	<b>Low Band Contest</b>
<b>6th April</b>	<b>HQ Infoline due</b>
<b>7th April</b>	<b>Club Dinner</b>
7th April	No HF Net due to club dinner
8th April	VHF Net, 146.525 MHz, 20:00
<b>12th April</b>	<b>Boat Anchor Sprint</b>
14th April	HF Net, 3.575 MHz, 19:30
15th April	VHF Net, 146.525 MHz, 20:00
<b>16th April</b>	<b>Meeting replaced by Club Dinner</b>
<b>20th April</b>	<b>HQ Infoline due</b>
21st April	HF Net, 3.575 MHz, 19:30
22nd April	VHF Net, 146.525 MHz, 20:00
<b>27th April</b>	<b>NZART Official Broadcast</b>
28th April	HF Net, 3.575 MHz, 19:30

29th April—VHF Net, 146.525 MHz, 20:00

**30th April—AREC Hamilton Section Meeting**

**10th May—Closing date May/June Break-In**

**10th May—VK/Trans-Tasman Contest**

**14th May—Remit Night**

**17-18 May—Sangster Shield QRP CW Contest**

**30th May-2nd June—NZART Conference**

**7-8 June—Hibernation Contest**

**18th June—Conference Report**

**5-6 July—Memorial Contest 80m CW & SSB**

**2-3 August—Brass Monkey Contest**

**16-17 August—International Lighthouse/Lightship Weekend**

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### **ZL1WGA—Silent Key**

Gordon Addison, ZL1WGA, of Tokoroa passed away recently. Thoughts go out to his many friends and family and the members of the ARCF net of which he was an active member.

-Editor

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#### **Answer to puzzle:**

The answer is T V

The letters in the puzzle are only composed of straight lines, they have no curves in them.

This usually plays head games with people looking for a mathematical correlation to base their solution on.

## Sir Arthur C. Clarke (1917-2008)

The following is from an item that appeared in an Amateur Radio Newsline™ Report 1584 - December 21, 2007 commemorating his 90th birthday:

For years Arthur C. Clarke, has held the honorary AMSAT membership number 2001.

And, needless to say that he is best known for having penned the novel 2001: A Space Odyssey. That book was adapted into a motion picture directed by Stanley Kubrick. The film won an OSCAR for Best Special Visual Effects. But Arthur C. Clarke's most important contribution may not have been his science fiction writings. Rather, he is credited with development of the concept that lead to the development of the geostationary satellite as telecommunications relays in space.

Clarke first proposed this idea way back in October 1945 in a paper titled '**Extra-Terrestrial Relays - Can Rocket Stations Give Worldwide Radio Coverage?**'

The article was published in United Kingdom publication Wireless World magazine. The technology he outlined became the basis for most modern communications into the 21st century. In this clip from a 1992 interview with the late Roy Neal, K6DUE, Clarke told how the idea came about:

Clarke: "At the time I was working on a very complex RADAR. It was the first Ground Approach Control flight management system which has about a thousand valves or what you call tubes. At least one would blow out every day, so I couldn't imagine that sort of equipment operating without mechanics on the spot to change them and give it service. So I assumed that these relay stations would be manned space stations, like the Freedom Space Station but at a lower altitude."

"What I didn't envision was the incredible revolution in solid state electronics: First the transistor and later the micro-chip. And I have sometimes said though not very seriously that the invention of the transistor was a major catastrophe for astronautics because if we hadn't invented the transistor we would have had to build manned space stations and we would have been half way to Mars by now (giggle)."

For his effort, the geostationary satellite orbit known as the **Clarke Belt** was named in his honor.

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## Upcoming AREC Events

Please mark these dates on your calendar and/or diary

The club has 2m handheld radios for use on events like these which means YOU can help out.

### **Twin Rivers Water Ski Race 2008**

12th April 2008, starts at 1pm  
Ngatea Bridge to Paeroa Bridge.



### **WRC Promo Day**

29 June 2008, Mystery Creek

### **WRC Rally 2008**

29-31 August 2008, Mystery Creek  
Names of primary operators to ZL1UD via eMail. Reserve your spot quick.  
ZL1IC, ZL1TCE already booked in.  
Possibly moving from checkpoints every 5km to every 3km.

### **25th Annual Rollos Bridge to Bridge**

#### **Water Ski Classic 2008**

12-16 operators needed  
ZL1DGK, ZL1GWP, ZL1IC, ZL1PK, ZL1UD, ZL1UPJ, ZL2CMC  
already booked in.

### **Kona Colville Connection 2009**

14th March 2009  
Using HF & 2m (simplex & repeater).  
ZL1IC, ZL1PK, ZL1TCE, ZL1UD, ZL2TW already booked in.

For Details about and to help with these events, contact :-

Tony Case ZL1UD [zl1ud@nzart.org.nz](mailto:zl1ud@nzart.org.nz)  
or one of his deputies (ZL1PK, ZL1TCE, ZL1UPJ).

## Club Information



### Contacts :-

**Business Meeting:** 1930 First Wednesday of each month  
88 Seddon Road, Hamilton

**General Meeting:** 1930 Third Wednesday of each month  
88 Seddon Road, Hamilton

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**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

**STSP** 145.325MHz -600kHz split  
**Repeaters:** 438.725MHz -5 MHz split  
**ATV Repeater:** 615.250 Ch39 (off air)

*Cover Photo: Kiwisat mock-up from AMSAT-ZL presentation at clubrooms 19 March 2008.*

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