

Newsletter

March 2008



Kingston Amateur News

# Kingston Amateur Radio Club 2008 Executive

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**2007 Committee Chairs**

**Two Meter Net Manager:**

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**<http://www.ve3kbr.com>**

**VE3KAR  
VE3KBR  
VE3UEL  
VE3KER  
146.94(-) MHz**



**The 2nd Repeater is now  
Operational  
147.090(+) MHz**



## NOTE FROM THE PRESIDENT

**With the weather finally getting better (???), I am looking forward to seeing as many members as possible at the next meeting.**

The Balloon project is moving forward (slowly) - have not heard from the Queen's gang since we dropped off the transmitter. They were expecting to launch before the end of March.

We have received an invite from the city for "The Sky's the Limit" for 5 July. This will be a discussion topic during the next meeting.

This event is our opportunity to showcase Amateur Radio.

This year's major attraction will be the RCMP musical ride.

Waiting impatiently for the snow to melt.

73

Les

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### **From the Editor:**

Again, thanks to Bill, VE3CLQ and Bill, VE3OL, I have two excellent articles for you to read.....you saved this month's newsletter from being just a little one.....thank you.

As I have already said, maybe too often, every little bit helps!!!!!!!

## WEEKLY NETS:

KARC conducts a **2m** weekly net on **VE3KBR - 146.940 (-)** each **Tuesday evening at 7:30 P.M.**

All are welcome to check-in.

### SCHEDULE OF NET CONTROL S

<b>APRIL</b>	<b>MAY</b>
Apr. 1 – VE3KC	May 6 - VE3JPW
Apr. 8 – VE3VJF	May 13 - VE3NFU
Apr. 15 – VE3CAK	May 20 - VE3KC
Apr. 22 VE3MUD	May 27 - VE3VJF
Apr. 29 - VE3CLQ	

If there are any conflicts in the schedule please contact Bill at [ve3clq@rac.ca](mailto:ve3clq@rac.ca) and we'll juggle a few things.

The net script has been posted on the Website

**We are looking for two more net controllers.....any volunteers?**

**Thanks... Bill, VE3CLQ.**

**FRONTENAC ARES** conducts a weekly net on 3.755 MHz each Tuesday evening at 8:30 P.M.  
All are welcome to check-in.

\* \* \* \* \*

**Every SATURDAY: BREAKFAST at SMITTY'S. Starts at 8:00 a.m. but come early, chat and mingle.**

\* \* \* \* \*



**The THIRD MONDAY of every month at 7:00 p.m.  
is the ARES REGULAR MONTHLY MEETING  
at the Woodbine Firehall, second floor.**

\* \* \* \* \*

**KARC Web page designed and maintained by: VA3KGB, Chip**

<http://www.ve3kbr.com/>

Publication Schedule of the KARC Newsletter will be April 30, 2008

***OF INTEREST***

Not enough can be said about the Online Licence Study Guide and it should be encouraging for those wishing to become new members. Who knows when someone might see it while 'surfing' and become an active, productive member of KARC.

The " OSS " and " HFRADIO.NET" are pleased to offer all radio enthusiasts an absolutely free High Quality Online Licence Study Guide. Your kind donations have allowed us to move forward with this first ever in Canada offering. Please share this link with anyone interested in obtaining a Canadian Ham Licence, offering a course, or simply using it to show others just how easy it is to become a Radio Ham.

Go to: <http://www.emoares.org/course> (CTRL-left click to open)

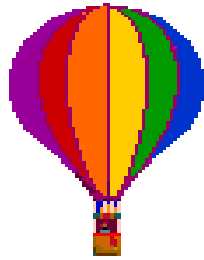
\*\*\*\*\*

There is a new NET which started Sunday, January 27, 2008..

**Every Sunday. Freq: 7.198 MHz. Time: 23:00 UTC.**

Also see , <http://www.hamwave.com/cgi-bin/index.cgi>

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We are waiting to hear from the **QUEEN'S HIGH ALTITUDE BALLOON GROUP** to see how they are making out. They had hoped to launch before the end of March.

\*\*\*\*\*

Again, we've found a shack that is so neat and tidy you'd knock on the door before you go in.....

Thanks, John, VE3GST.



## SUNSPOT CYCLE 24 IS BEGINNING!!!

### Is your radio up to the challenge?

By: Tom Phillips - AB5ZJ

Some scientists believe sunspot cycle 24 began January 2008, and will peak in late 2011 or 2012. They say it is up to a year later than had been expected. Moreover, they have issued an unprecedented forecast for this new cycle, predicting it will be 30% to 50% stronger than 23 was!

If those scientists are correct, things are REALLY going to liven up on the HF ham bands when cycle 24 reaches its peak years.

Let's face it; we've been in this low cycle 23 drought for so long now, I am sure most of us just can't wait for 24's higher signal levels to begin! I'll wager even those with high gain antennas wish for this, too. No one has been immune to cycle 23's low band conditions.

So now's the time to start thinking about what effect the approaching cycle 24 will have on our day to day ham radio activities, especially as it applies to our own radios, or the ones we might purchase in the future.

As band conditions improve, I see us spending more time in the ham shack. That means QRM will greatly increase with numerous, more closely spaced S9 signals, including those at +20, 30, or even 40 over S9.

It is a certainty that these strong signals will produce more IMD\*\* problems both inside the receiver, and also from the transmitter you are listening to, which is another huge problem in today's Ham Radio design. (Note: there are many good articles on the Internet that talk about Transmitter IMD issues you need to familiarize yourself with that's outside the scope of this article.) If you are one of those fortunate enough to own a well designed receiver having high IMD and BDR (specs, it will likely do a much better job eliminating or substantially reducing those internally generated receiver interferences. However, receivers with low IMD\*\* specifications will not fare as well when the bands begin to fill up with lots of strong signals.

Right now you may be asking yourself... "Is my current receiver, or the one I'm about to purchase, one of those that will not fare well, when the band really opens up, due to a low IMD\*\* spec?"

Well, if you purchased your radio within the past few years during cycle 23's low levels, you can't really tell how it will do in cycle 24's highs unless you discover what the receiver's IMD\*\* specs are, or have run into problems already. If you are about to purchase a new radio, then it's doubly important to find out what its IMD\*\* spec is. (More about this later)

Having said that, if you are a casual everyday operator, and with a preference for SSB - the IMD\*\* interference we are talking about might not matter. You can choose the times to get on the air, or simply wait till the band dies down a little. On the other hand, if you are seriously into DX, contesting, digital modes, or weak signal work, you don't choose the time, it chooses you. *Any* IMD\*\* interference produced within your receiver as a result of these very high signal levels on the band could prove to be a show stopper. In that case, you'll definitely want to know how well your receiver is designed, and if it is not that good, maybe there is a mod out there that can help improve it or maybe there's a new radio in your future.

The first thing you should do is familiarize yourself with the technical aspects of receiver IMD\*\* and BDR.\*\* Then look up your radios test scores published by several key independent test labs such as the ARRL, Sherwood Engineering, or technically qualified Hams who have published their own independent tests.

While receiver specs are a significant indicator of good or bad receiver design, there are two important tests to look for; the 2 kHz, 2-tone, third order dynamic range, and the 2 kHz, third order intercept. These highly regarded tests, done in CW mode, indicate how well your radio can reduce multiple strong interfering signals that produce internal IMD\*\* interference, (similar to what is sure to happen during cycle 24) while still permitting you to effectively listen to your target signal.

In the past, the ARRL tested the IMD\*\* with test signals (tones) spaced 5 kHz apart, a broader, less stringent test than the current test which uses signals spaced 2 kHz apart. The more stringent test is used now because many technically competent hams began seeking tighter filtering from third party vendors, or they made their own modifications to obtain better IMD\*\* results. Eventually some radio manufactures began offering better receiver designs, thus raising the IMD\*\* bar.

It is a credit to the technical hams among us who demanded better performance from their receivers that undoubtedly contributed to an Amateur Radio industry wide manufacturing trend toward a more robust receiver design. I suspect this type of entrepreneurial spirit will one day give us receiver performance far above what we now have, and do it for less money. Still, not all receivers are made equal, and most manufactures today do not publish the IMD\*\* specs that would reveal just how well, or how poorly, their receiver is designed.

As your own research will show, the higher these IMD\*\* numbers are, the better your receiver IMD\*\* interference fighting capabilities should be. Once you look at the various receiver data, it will become clear that radios with very low IMD\*\* test scores for a 2 kHz, 2-tone, 3<sup>rd</sup> order dynamic range of 64 dB for example, will likely become more problematic when dealing with multiple high energy signals during the peaks of sunspot cycle 24. Radios with higher test results, graduating towards 80, should do much better. Radios with very high test results moving towards 90 or higher, should fair the best. (Note: regardless of where we are in a sunspot cycle, poorly designed, tuned and maintained transmitters on the band will also degrade reception.)

Why many manufactures don't publish IMD\*\* specs for their radios is not clear. One possible reason is to cover up a poor or marginal receiver design, which the manufacturer feels safe launching during the low sunspot years, when band conditions won't demand much of the radio's IMD\*\* performance. They also know that most Hams lack the sophisticated test equipment and know-how required to reveal inferior receiver design. As a result, the facts remain hidden.

Since IMD\*\* data is not published, manufacturers often rely heavily on their multi-colored brochures, beautiful pictures and catch phrases such as, "Ultra Strong receiver front end," or "High performance receiver design," in hopes you'll ignore the data's absence and buy the radio for reasons other than performance. To me, there is nothing wrong with doing a little "chest pounding" as long as it is based on fact.

A good trend developing in the ham radio market is that some new radios being introduced have actually added IMD\*\* specs to their performance data! As cycle 24 develops, these radios, in particular, will be worth taking a good hard look at.

If you are one of those who don't usually concern themselves with specifications other than sensitivity, beware. The arrival of strong signals and heavily loaded bands will push receivers to their limits and it will be these conditions that separate the men from the boys as far as receivers are concerned. If you recently purchased your radio but wait unit cycle 24 really gets going to educate yourself about IMD\*\*, you might find yourself owning a possible out of warranty radio that falls far short of the claims made in the manufacturer's outstanding color brochure.

We should all start insisting that manufactures publish a complete set of test data that includes all the important IMD\*\* specs (including transmitter IMD) in their marketing literature, so we can make a better, more informed decision when purchasing.

It's worth noting, however, that lab numbers do not tell the whole story about a radios performance. Depending on your point of view and operating practices, the radio should be easy to use, sound great, and work reliably. As mentioned earlier, if you are a casual operator, like to do mostly SSB rag chew, then a radio with lower IMD numbers could do just fine. For the more intense among us, well.....

I'm not usually prone to nightmares but I have a recurring one these days. In that horrible dream I see a strange menacing symbol drift slowly across my vision looking suspiciously like the number.....24.

73

AB5ZJ

\*\*IMD = Inter-Modulation Distortion, and includes IMD DR3 and others for brevity of writing.

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## SPECIAL OPERATIONS

### Weather station Kurt erected in Labrador in 1943

The [U-537](#) made the only armed German landing on North American soil in WWII.

U-537 left Kiel, Germany on September 18, 1943. She made a brief stop in Bergen, Norway and headed out to sea again on 30 Sept. The boat went on patrol in the western North Atlantic under Kptlt. Peter Schrewe. Its task was to set up an automatic weather station on the coast of Labrador. U-537 carried a scientist, **Dr. Kurt Sommermeyer**, and Wetter-Funkgerät (WFL) number 26 (the sixth in a series of 21 such stations) manufactured by Siemens. It consisted of various measuring instruments, a 150-watt Lorenz 150 FK-.type transmitter and ten canisters with nickel-cadmium and dry-cell high-voltage batteries.

On October 22 U-537 arrived at **Martin Bay** at the northern tip of Labrador. For the next 48 hours U-537 lay at anchor while the crew manhandled the 220-pound canisters, along with a tripod and mast, into rubber boats and then onshore. The weather station was set up 400 yards inland on a 170 feet high hill. At 5:40 P.M. on October 23, having ensured that the station was functioning properly, Schrewe weighed anchor and set off for an anti-shiping patrol off Newfoundland. His patrol was uneventful and on December 8 U-537 returned to Lorient, France.

Reports indicate that the weather station sent out normal transmissions for a few days, but then there was apparent jamming on that frequency (about which nothing is known; no evidence has yet turned up that the Allies learned about the equipment).

U-537 was transferred to the [Far East](#) and sunk with all hands on board in late 1944 - only Dr. Sommermeyer and crew member, who had left the boat prior to the its transfer to the Far East, survived the war.

#### **The station remained unknown until ...**

Thus the station was a secret known only by a handful German seamen and scientists. The story became known in the late 1970s, when an engineer named Franz Selinger after his retirement from Siemens decided to write a history of the German weather service. Among Dr. Sommermeyer's papers he found photographs of one weather station and a U-boat that did not fit in with the eastern Arctic installations he had previously been able to identify (Greenland and Svalbard). He identified the Labrador coast, but neither Canadian nor American authorities could provide evidence. Via Jürgen Rohwer and the son of Dr. Sommermeyer he then identified the U-537 and located the logbook at the archives in Freiburg.

In 1980 he wrote to the official historian of the Canadian armed forces, W.A.B. Douglas (who has written an article in MHQ). Douglas and the Canadian Coast Guards were able to go and look and actually found the remains of the weather station. Some parts were missing, but the canisters, tripod and mast, and some dry-cell batteries was left to identify.

## The current location of weather station Kurt



Kurt as displayed at the Canadian War Museum, Ottawa.

After the rediscovery of the station in the 1980s by the Canadian Coast Guard (following press articles etc. on the subject), it was dismantled and brought to the Canadian War Museum in Ottawa. This unique historical artifact from the war is now on permanent, public display (see photo) at the [Canadian War Museum](#).

### **Another weather station in Labrador planned**

In July 1944, the [U-867](#) reportedly set out from Norway to erect a second weather station in Labrador but was sunk en route by RAF planes.

Special thanks to Peter Hvidtfeldt.

KINGSTON AMATEUR RADIO CLUB, Inc

Treasurer's Report for March 20, 2008

	This Month	Year to date
Membership	20.00	390.00
50/50 Draws	7.50	21.50
Donations	9.00	35.50
<b>TOTAL</b>	36.50	447.00
Expenses		
Repeater upgrade	100.00	100.00
RAC insurance	150.00	150.00
Queens Balloon	215.00	215.00
<b>TOTAL EXPENSES</b>	\$465.00	\$465.00
<b>NET INCOME (LOSS)</b>	(428.50)	(18.00)

Bill, VA3OL  
Treasurer, KARC Inc.

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## **KINGSTON AMATEUR RADIO CLUB AGENDA**

**Wednesday, April 3<sup>rd</sup>, 2008**

**At Smitty's Restaurant, back room**

**7:00 p.m.**

- 1. Introduction of members**
- 2. Additions and/or deletions**
- 3. Minutes of Monthly Meeting:** Errors/Omissions
- 4. Treasurer's Report**
- 5. Old Business**
- 6. 50/50 Draw**
- 7. New Business**
  - a) The Sky's the Limit
- 8. Reports:**
  - a) RAC
  - b) Net Manager - VE3KFS
  - c) KARC Newsletter
  - d) Web page - VA3KGB
  - e) Any other reports
- 9. Presentation:** (If one has been arranged)
- 10. Adjournment:**

# MINUTES OF THE MEETING OF THE KINGSTON AMATEUR RADIO CLUB INC

HELD ON

Wednesday, March 5<sup>th</sup>, 2008

At SMITTY'S RESTAURANT, PRINCESS STREET, KINGSTON, ONTARIO

The meeting was called to order by the President, Les, VE3KFS, at 7:08 pm.

1. All members/guests were introduced, 13 members and guests present.

2. Minutes: Correction to the minutes: Michael won \$7.00 not \$14.00 which he donated to the Club. Moved by Chip, VA3KGB, and seconded by Doug, VE3FFR, that the minutes of the meeting of 5 Dec 2007, be adopted as presented in the Club's Newsletter with the correction. Carried

3. **TREASURER'S REPORT:** Moved by Bill, VA3OL, and seconded by George, VE3SIQ, that the Treasure's Report be adopted as presented in the Club's Newsletter. Carried.

## 4. OLD BUSINESS:

a) **TAILGATE BREAKFAST/PARTY:** More to Follow, possibly to be held May/June.

b) **QUEEN'S BALLOON PROJECT:** The Microtrack has arrived, and has been assembled. There is an upcoming meeting with the project group Saturday.

## 5. NEW BUSINESS:

a) **AMATEUR RADIO COURSE:** 772 EW Squadron has asked the Club to run an Basic Course with up to 24 students including up to 5 Club members wishing to take the course. Head Instructor: Les, VE3KFS.

b) **YOUTUBE VIDEOS:** Rob brought up the subject of creating some videos and posting them on YouTube highlighting Amateur Radio i.e. The Queen's Balloon Project for one.

c) **ECHOLINK:** Phil, VE3HST, is working on an EchoLink connection. More details to follow.

6. **50/50 DRAW:** Won by Victor, \$7.00.

**7. REPORTS:**

a) **RAC:** Nil Report.

b) **NET MANAGER:** Going well..

c) **IRLP:** Working Good.

d) **KARC NEWSLETTER:** Send articles to Joan, she needs them.

e) **KARC WEBSITE:** Will Add Balloon project info as we get it.

**8. DEMO:** The Microtrak was available for viewing.

**9. NEXT MEETING:** Wednesday 2 April 2008.

**10. ADJOURNMENT:** 7:45 pm. It was moved by George, VE3SIQ, and seconded by Doug, VE3FFR, that the meeting be adjourned. Motion carried.

CJ 'Chip' Chapman, VA3KGB  
Secretary, KARC,Inc.