

Newsletter

February  
2011

# Kingston Amateur Radio Club

## 2011 Executive



Kingston Amateur News

**President: Steve Cutway, VE3KC**  
pres at ve3kbr.com

**Vice-Pres: Terry Barrett, VA3KLG**  
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**Treasurer: Doug Richards, VE3FFR**  
treas at ve3kbr.com

**Secretary: David Sellick, VE3DZE**  
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**Past-Pres: Les Lindstrom, VE3KFS**  
pastpres at ve3kbr.com

**2011 COMMITTEE CHAIRS:  
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VA3KGB, Chip Chapman  
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VE3JCQ, John Wood  
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VE3MNE, Don Gilroy  
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P. O. Box 1402 Kingston Ontario K7L 5C6

<http://www.ve3kbr.com>

VE3KAR Clarendon Stn  
147.090 (+) MHz

VE3KER Kingston  
packet node  
145.010 MHz simplex



VE3KBR Kingston  
146.940(-) MHz  
151.4Hz Tone

VE3UEL Hartington  
APRS node  
144.390 MHz

## FROM THE PRESIDENT

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Thanks to the 15 people who made the effort to attend the January meeting and who enjoyed an impromptu presentation by Phil VE3HST about a digital mode called JT65. I say, 'impromptu' because Phil volunteered to do the presentation minutes before the meeting started. Thanks very much, Phil, for stepping up.

Our presentation at the February meeting promises to be equally interesting and informative. Derek VE3HRW, relatively new to Kingston, will demonstrate at least two amateur radio internet applications, CQ 100, which some of you use, and HamSphere. I am familiar with CQ 100 as I've tried it, but I didn't know about HamSphere until Derek mentioned it to me.

Joining Derek will be our new 'Presenter', the Epson Powerlite Pro multimedia projector, which purchase was approved at the January meeting. This unit can project multimedia content via DVD, VGA, USB, HDMI, composite and component video. You don't need a computer although you can certainly use one. If you put pictures on a USB thumb drive, they'll be displayed as a slide show which you can control with a fully functional remote control. So you can bring pictures to show your fellow members at future meetings without having to prepare a full-blown presentation.

The big news this month has been the installation of our new repeater. Don VE3MNE turned it on for the first time Jan. 18th. I was working at my computer just after 10 a.m. that morning when I heard a CW identifier send 'VE3KBR'. (For those who don't know CW, that's what you hear.) I picked up my mic to compliment Don on his work and John VE3CAK came back to me. As I said in my note to the Free List that day, my thanks go out to Don for his work. I am extremely pleased with the audio quality of the repeater and speaking only for myself, I think its CW identifier is all we need. (Other views are welcome, of course!)

Many will remember the Queen's and RMC high altitude balloon flight projects we helped with in 2008 and 2009. There's another one in the offing. A group of final year Queen's Engineering Physics students are planning one as their final term project and they've asked for our help once again. (See their article in this newsletter.) They will also present their plans at our February meeting. I'm looking for someone to act as a liaison between the Club and the students.

I look forward to seeing everyone at the Feb. 2 meeting. Until our next QSO on the air, at the next meeting or in the next newsletter, 73s and good DX.

Steve VE3KC

## MEMBER ARTICLE

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### **High Altitude Balloon Project**

I am currently with an undergraduate Engineering Physics group at Queen's University. We are building a high altitude weather balloon for a fourth year design project.

The goal of this project is to launch a helium-filled balloon equipped with a payload into the stratosphere to measure a number of atmospheric parameters. We're hoping that the balloon will reach an altitude of at least

25km. At high altitude the low atmospheric pressure will cause the balloon to rupture. At this point a parachute will be deployed and the payload will be returned to the ground where it will be (hopefully!) recovered intact. The payload will be equipped with a variety of sensors for measuring the altitude dependence of temperature, pressure, and ozone concentration, as well as a microprocessor and storage system for logging the data. In addition, the payload will include a digital camera for image and/or video recording. The payload will also include a GPS unit for tracking the balloon's trajectory.



*A view of the Earth from the stratosphere. What we're hoping to achieve!*  
[Source: <http://www.natrium42.com/halo/flight2/> accessed Jan. 24, 2011]

In addition to storing flight data on board, we plan to transmit GPS coordinates and all the data recorded aside from the camera photos via radio to ground for live flight tracking. In researching methods to transmit the data, amateur radio has come to our attention as a good technique for performing this task. We're interested in using the APRS protocol because it seems to suit our needs.

We're inexperienced with amateur radio, but would be interested in picking it up quickly. We're embarking on an exciting project and we would appreciate if someone who shares our enthusiasm would be willing to guide us along the way.

David Woodruff  
[dtwoodruff@gmail.com](mailto:dtwoodruff@gmail.com)

#### MEMBER ARTICLE

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Hi the Name is Norm Hagan aka VE3VY. My XYL of 61 years is Helen aka VE3BNZ.

My early interest in electronics has greatly influenced my whole life. Hunting through libraries for radio books was a frequent pastime. I started of with crystal sets. Then made a big jump to a regenerative receiver, using a miniature 1S4 tube. Many a time I blew the filaments by cross connecting the A and B batteries. That meant delivering newspapers so I could buy a new tube. When it first started to work I could only get one station and I was puzzled for a long time. Then one day the whole world opened up. WOW! The airwaves were

alive. I had connected the tickler coil at both ends to the stator plates instead of the rotor and stators Anybody remember Hugo Gernsback books ? Thus the journey began

I got my first ham license while living in Montreal. It was 1947 and the call was VE2NL. I started off on CW and continued with that for quite a few years. Somewhere around 1955 I got my Advanced. I have operated in Zone 2 at Labrador City as portable VO2. I also operated, in Jamaica as 6Y5NH, and Alberta as VE6NZ. There have been lapses off and on through the years. But since moving to Westport I have been at it full time. My pet hobbies at present are digital radio (Winlink) and public service/emergency communications.

We have lived in the Westport area since 1985. Previous to that we spent 7 years in Edmonton with the Provincial Government and previous to that with the Quebec North Shore and Labrador Railway/Iron Ore Co of Canada in the North. We spent 29 years in Sept Iles (Seven Islands) and several years in Labrador City and Schefferville (Knob Lake). The earlier years were with Canadian Pacific Telegraphs, and before that with the Anglo American Telegraph Company, both in Montreal.

My years with Anglo (which belonged to Western Union) got me into communications. Anglo was the Canadian terminal of the transatlantic cable system. Connections ran through Newfoundland to Penzance in England. I finished up there as a transatlantic teletype operator sending EFM's (Expeditionary Force Messages) to troops in Europe. If you ever visit Newfoundland, visit Heart's Content, where the first Atlantic Cable was brought ashore in the 1800's. The equipment used in those days would not be recognizable by today's hams, but are really interesting to see.

Next it was a move to CPR Telegraphs, Hospital Street, Montreal. Once again today's youth couldn't tolerate the extreme discipline demanded by the Big Guy in the corner office, in those days

He was the Head Wire Chief. This period saw me start off once again as a teletype operator. Then I moved on to what they called a T & R Chief, (Testing and Regulating). This was looking after land line carrier equipment (full of tubes) used to carry telephone, teletype and CBC International Shortwave and standard Broadcast services.

While working at CPR I came across an item about a new railroad being built in Northern Quebec and Labrador. I applied for a job and was given a private aircraft flight to Seven Islands to see if I wanted the job and they thought I was suitable. After a weekend there I returned to Montreal via aircraft, train, ferry and bus. An eye opener for a young buck. I was hired. I moved to Sept Iles about a month later leaving my wife and two kids in Montreal. They moved several months later when I could find accommodation. I spent many a day and night chasing down land line and wayside telephone troubles. At the time the railway had only been completed about 100 of the 360 miles needed. We installed mobile radios in trains, vehicles and aircraft. As time went on we installed and maintained land line carrier systems, diesel standby generators, aircraft electronics, microwave systems, automatic telephone exchanges, microwave systems, industrial electronics, repeater systems, automatic weigh scales, avionics, broadcast and television transmitters and studios, and on and on. Most of the work was carried out at Sept Iles and along the Railway. Once we reached Schefferville, and later Labrador City, we installed these same facilities at those locations. We also installed the first telephone and teletype link into Churchill Falls. We used 160 Mhz at 250 watts output with beams. Boy was the fishing ever good on the road from the railway to Churchill (at the time called Twin Falls). Our Company also had a large fleet of aircraft including Beavers, DC-3's (which had flown the Hump into China, Canso's and other aircraft.

Part of our Communications and Signals Department was also responsible for installing and maintaining a sophisticated railway signal system and 23kv power line. The signal system allowed dispatchers at Sept Iles, to control the movement of trains on the rail line. The power line extended the full length of the railway and was used to provide power for signals, communications and camps used to house maintenance of way and signals personnel.

While I started out in charge of the communications, I later also took over the signals and power system. In the later years I introduced the use of helicopters to transport maintenance personnel around moving trains and to increase productivity. That resulted in a reduction of manpower from about 150 communications and signals employees to 36. Today these trains move 250, 120 ton ore cars using two head end locomotives and a slave locomotive 2/3rds the way back, controlled by radio from the front end. Only one man is on board. The railway is single track with passing tracks about every 15 miles.

They have recently implemented a system to prevent head or tail end collisions. Using GPS and radio the system gives the train crew a warning when they are approaching another train which is about 15 miles away. Then another more urgent signal at 7.5 miles. At 5 miles the locomotives come to a halt. It can take 2.5 miles or more to stop a train.

I guess because of some luck I was chosen to take one year of training in Labrador City, in their large mining, concentration, pelletizing and automatic train systems located there. After 6 months I was sent to Schefferville to take part in a pilot plant operation. The pilot plant was to determine whether the ore from the Schefferville mines could be used to produce pellets. That lasted about 4 months. Then back to Sept Iles where I was promoted to Superintendent of the about to be constructed, Pellet Plant. The plant was designed to handle 6 million tons of pellets a year. The largest plant of its kind in the world at that time. The plant was a disaster. Everything had been designed without sufficient tolerance. We burned out 200 hp motors regularly, conveyors would get plugged, ore coming to the plant was so variable it was impossible to keep changing the plant operations to follow the swings.

Our maintenance and operations crew consisted of 400 persons, The operating budget for the start up was 20 million/year. Contractors would block ductwork, when they weren't sleeping. I gave up after many 36 hour days.

I spent about 2 years straightening up a mess in the company's large warehouse and declared some \$30 million either obsolete or duplicated. I also designed a coke breeze (coal dust) handling system from off loading of ships, stockpiling, shipping by rail to Labrador City, and then the off loading stockpiling system at that end.

Then (Happy Days) I had a call from a friend in Edmonton saying that the Alberta Government was looking for someone to set up program of standards and specifications. I was hired and moved to Edmonton. Helen joined me about 6 months later. This was a great job. As manager I only had 16 employees to worry about and had a free hand to do what I thought necessary. Later I was promoted from Manager to Director reporting to the Assistant Deputy Minister. I learned a lot and taught some. I became involved with CSA, CGSB, ULC, CGA and The Standards Council of Canada. I travelled to Geneva to work with the International Standards Organization. I also worked with many Provincial government officials across Canada.

Finally I decided it was time to let go and be responsible for my own income. I did consulting work with the Federal Government and the the National Research Council in Ottawa, much of which involved creating standards information databases for Canada, the USA, Australia, England and France, for use by NRC. Helen did a lot of footwork for me there.

When that came to an end I opened up a custom picture shop for about 6 years. That was fun because I got to meet a lot of interesting people.

Then I gave that up and started doing websites for different people. I still do a little of that to make money for goodies for ham radio.

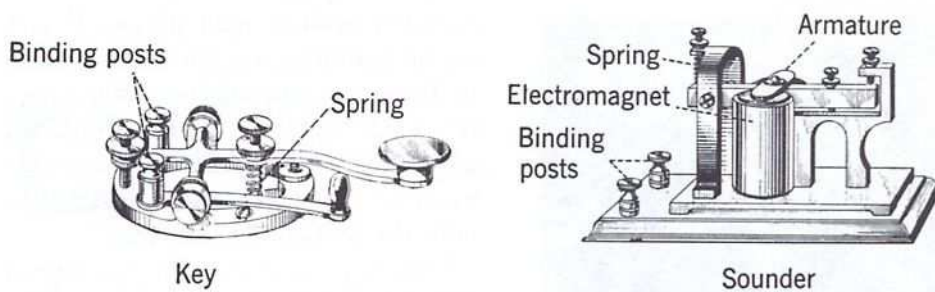
But with all of those changes, the only constant has been ham radio.

So that's the end of the story...up to now.  
73's

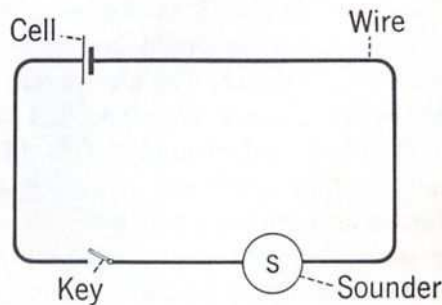
MEMBER ARTICLE

Sending words long distances in 1957

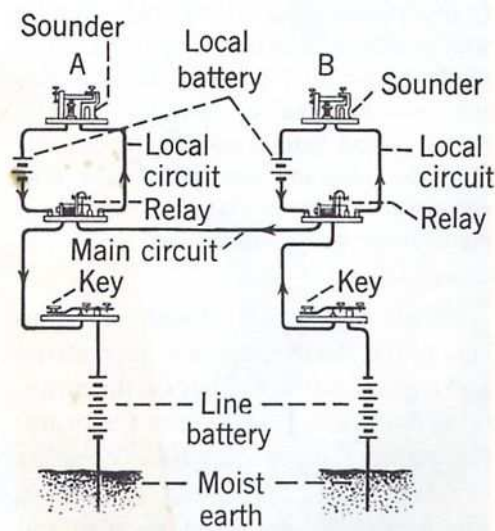
When I was in high school, we used a textbook called Science, Discovery and Progress by Davis, Burrett and Gross, written in 1957. As you know, I never throw anything out. Chapter 12 is called "How has man learned to send words and pictures long distances?". Drawings and diagrams help to describe how the telegraph and teletype work. To say the least, the material appears quite quaint just a mere 54 years or so later. Quite a few of us are from that era or even well before.



**Fig. 12-2.** The armature of the telegraph sounder is attracted to the electromagnet when the circuit is closed.



**Fig. 12-3.** When you open and close the key in the circuit, the telegraph sounder makes a series of dots and dashes.



**Fig. 12-5.** A relay makes it possible to introduce another circuit at each station. The relays are connected in series on the main circuit.



**Fig. 12-4.** The teletype is an important device used today to send messages. It has replaced the former Morse Code method of sending messages.

To quote from the textbook, "When the key is closed, the iron core of the electromagnet is magnetized." "With a code, long messages can be sent quickly." But look at the progress. "The teletype consists of a telegraph sender with a typewriter keyboard and a receiver that types the message in words. Teletype is used in sending the telegrams which are so familiar to you. Most of the news items you read daily in newspapers, or hear on radio or television, are sent by teletype. Telegrams are sent long distances by use of relays and vacuum tubes". I wonder what would have been the reaction in the classroom if one of the students had pulled out a smart phone and started surfing the web?

Of course, you can find lots of information like this that is far older. The intrigue for me is that this was the "discovery and progress" many of us were studying in our high school science classes. Also intriguing is that many of us are using CW keys, exactly like the one shown, to send words long distances in 2011.

... Phil VE3HST

## AGENDA

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### KINGSTON AMATEUR RADIO CLUB, INC

February 2, 2011

At Smitty's Restaurant, back room

7:00 p.m.

1. Members and guests introduce themselves
2. Additions to the agenda
3. Minutes of the January 2011 meeting: errors/omissions/approval (David VE3DZE)
4. Treasurer's report (Doug VE3FFR)
5. Business arising from the Minutes
6. New business:
  - (a) High altitude balloon flight project presentation (David Woodruff)
  - (b) Other items
7. Reports:
  - (a) President (Steve VE3KC)
  - (b) Repeaters (Les VE3KFS)
  - (c) RAC (Rob VE3RPF)
  - (d) Net Manager (Steve VE3KC)
  - (e) Web page (Chip VA3KGB)
  - (f) KARC Newsletter (Assaf VA3PCI)
  - (g) 'Hearts and Flowers'
  - (h) Other reports
8. Date of next meeting: March 2, 2011
9. 50/50 draw
10. Adjournment

Presentation: Derek VE3HRW will demonstrate two internet amateur radio applications: CQ 100 and HamSphere.

Other picture presentations are also welcome. (See the newsletter).



MINUTES OF MEETING  
OF THE  
KINGSTON AMATEUR RADIO CLUB, INC  
HELD ON  
Wednesday 5 January 2011  
At Smitty's Restaurant  
Princess Street, Kingston Ontario

**The Kingston Amateur Radio Club meeting** was called to order by our president Steve VE3KC at 7:00 PM.

**1.** The members present introduced themselves. There were 15 members in attendance. Welcome to Kingston's newest amateur, VA3TIC Tim Gregory.

**2. Minutes:** Our president asked for approval of the Dec. meeting minutes as published in the newsletter. The motion was moved by David VE3DZE and seconded by Les VE3KFS and was passed.

**3. December Treasurer's Report:** The report was read by Doug VE3FFR. We had a closing balance of \$6381.82 also in equity shares a total of \$197.49 and in the savings account we have \$15.00. Doug VE3FFR Moved, seconded by Derek VE3HRW, that the Treasurer's Report be adopted as read. Motion carried.

**4. Old Business:** We received a nice thank you card from Joan Clarke for her certificate that was presented at the December meeting.

**5. New Business:**

**a)** We have priced and located a vendor to purchase a multi media projector to allow easy presentations to be shown via a USB thumb drive or DVD player with 10-watt audio stereo speakers. David VE3DZE moved that we buy this unit and Les VE3KFS seconded the motion. Motion passed.

**b) Insurance:** After much discussion, Paul VA3LX moved, seconded by Doug VE3FFR that we pay the insurance \$440.81 to the RAC Clubs Affiliated Insurance Program. The motion passed.

**6. Reports:**

**a) President:** See the report in the January newsletter.

**b) Repeaters:** Don VE3MNE has the new VE3KBR repeater and it will be up and running as soon as possible depending on Don's workload at work. VE3KAR is working fine and the FCARES simplex IRLP node is running well.

**c) RAC:** Rob VE3RPF is away on vacation but we did have a discussion on the state of the RAC organization.

**d) Net Manager:** Steve VE3KC reported that we will use 146.940 simplex with no tones for the net until the new repeater is installed. The revised net controller schedule is published in the January newsletter. Steve thanked those who contributed trivia, a popular segment of the net. He said we are always looking for net controllers; the script is on the web site. But the most important thing is that you check into the net, Tuesday evenings at 7:30 PM because without you, it's pretty lonely.

**e) WebPage:** Chip is under the weather but the site is working well.

**f) Newsletter:** Assaf said that articles for the January newsletter should be sent to [news@ve3kbr.com](mailto:news@ve3kbr.com) a week before the February meeting (Jan. 26<sup>th</sup>).

**g)Hearts & Flowers:** George VE3GHK's wife is unwell but recovering and Ken VE3XCT's wife is also very unwell -- our hearts and flowers to them.

**8. Date of the next meeting is February 2<sup>nd</sup>, 2011.**

**9. Adjournment:** Les VE3KFS seconded by Larry VE3LDM, moved to adjourn. Motion carried.

**10. 50/50 draw:** there was no fifty / fifty draw this meeting.

Phil VE3HST gave a short presentation on digital mode JT65

David Sellick VE3DZE  
Secretary  
Kingston Amateur Radio Club Inc.

#### FINANCIAL STATEMENT

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Kingston Amateur Radio Club  
Financial Statement  
Jan 2011

Income

Membership 100.00

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Total Income 100.00

Expenses

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Projector 1128.87

Insurance 440.81

Postage 10.23

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Total Expenses 1579.91

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Overall Total \$ -1479.91

Bank Balance

As of Jan 22, 2011 **\$ 4902.46**

NET CONTROL SCHEDULE

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<b>February</b>	<b>1</b>	<b>VA3PCI Assaf</b>
<b>February</b>	<b>8</b>	<b>VE3SIQ George</b>
<b>February</b>	<b>15</b>	<b>VE3TD Mike</b>
<b>February</b>	<b>22</b>	<b>VE3VJF Roy</b>
March	1	VE3CAK John
March	8	VE3DZE David
March	15	VE3JPW Warren
March	22	VE3NFU Bill
March	29	VE3KC Steve
<b>April</b>	<b>5</b>	<b>VA3PCI Assaf</b>
<b>April</b>	<b>12</b>	<b>VE3SIQ George</b>
<b>April</b>	<b>19</b>	<b>VE3TD Mike</b>
<b>April</b>	<b>26</b>	<b>VE3VJF Roy</b>
May	3	VE3CAK John
May	10	VE3DZE David
May	17	VE3JPW Warren
May	24	VE3KC Steve
May	31	VE3NFU Bill
<b>June</b>	<b>7</b>	<b>VA3PCI Assaf</b>
<b>June</b>	<b>14</b>	<b>VE3SIQ George</b>
<b>June</b>	<b>21</b>	<b>VE3TD Mike</b>
<b>June</b>	<b>28</b>	<b>VE3VJF Roy</b>

## NET CONTROL SCRIPT

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Revised Apr. 19, 2010

**[Before you start the net, please turn off the repeater identifier by issuing the key sequence '300' on your touchtone keypad. If you don't have a touchtone keypad, ask someone else to issue the key sequence for you.]**

Good evening. This is [callsign], net control station for the Kingston Amateur Radio Club's Tuesday night Net. My name is ----.

The Kingston Amateur Radio Club Tuesday Night Net is an informal net that meets at 1930 hours every Tuesday evening on the Kingston repeater, VE3KBR, 146.940 MHz, with a 151.4 Hz tone required on the input, 146.340 MHz. We welcome participation by all amateurs.

Before continuing, is there any emergency or priority traffic? Please call now.

The purpose of the net is to take check-ins; to inform you of KARC activities; to provide news from other radio clubs and news of interest to Radio Amateurs. Information about KARC may be found on the web site ([www.ve3kbr.com](http://www.ve3kbr.com)) or by contacting any of our club executive members. I will take check-ins giving priority to mobiles, portables and stations checking in via EchoLink or IRLP. When checking in, please give your call sign phonetically, your name and location, and indicate whether you have any traffic or announcements for the Net.

Are there any stations using EchoLink or IRLP wishing to check in? Please call now.

Are there any mobiles wishing to check in? Please call now.

Are there any portables wishing to check in? Please call now.

Are there any base stations wishing to check in? Please call now.

### **Trivia Time**

Here's tonight's trivia question(s).

### **Swap Shop**

Are there any items for the swap shop?

### **Closing**

Are there any additional check-ins or announcements before I end the Net?

That concludes this evening's Kingston Amateur Radio Club Tuesday Night Net. Thank you for participating. We had [number] check-ins this evening. 73. This is [callsign] returning the repeater to normal amateur use.

**[Please remember to turn on the identifier again after the net by issuing the key sequence '301' on your touchtone keypad. If you don't have a touchtone keypad, ask someone else to issue the key sequence for you.]**