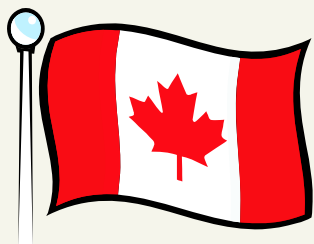


January 2014



# North Shore ARC



## UPCOMING DATES

January 21st, 2014

**NSARC General Meeting and Elections**

**1900hrs**

Visit us on the web

[www.ve3osh.com](http://www.ve3osh.com)

North Shore ARC is a



Affiliated club

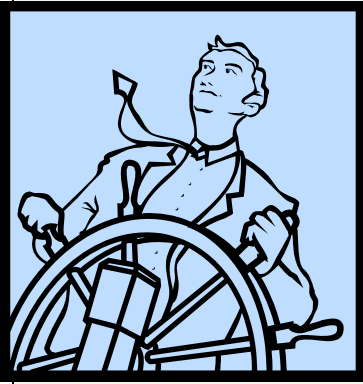
[www.rac.ca](http://www.rac.ca)

# Happy New Year!!!

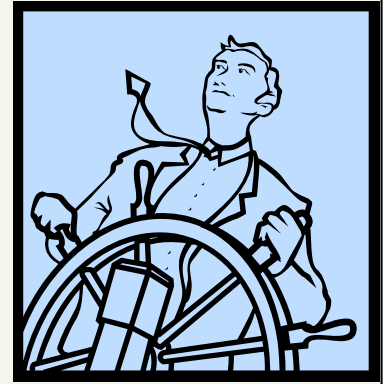
Date	Contest	Times
January 11th to January 12th	UK DX BPSK63 Contest	1200Z January 11th to 1159Z January 20th
January 11th to January 12th	MI QRP January CW Contest	1200Z January 11th to 2359Z January 12th
January 11th to January 12th	SKCC Weekend Sprintathon	1200Z January 11th to 0000Z January 12th
January 11th to January 12th	North American QSO Party, CW	1800Z January 11th to 0559Z January 12th
January 18th to January 19th	North American QSO Party, SSB	1800Z January 18th to 0559Z January 19th
January 18th to January 20th	ARRL January VHF	1900Z Jan 18th to 0359Z January 20th
January 24th to January 26th	CQ 160-Meter Contest, CW	2200Z January 24th to 2159Z January 26th
January 25th to January 26th	SPAR Winter Field Day	1700Z January 25th to 1700Z January 26th
January 25th to January 26th	REF Contest, CW	0600Z January 25th to 1800Z January 26th
January 25th to January 26th	BARTG RTTY Sprint	1200Z January 25th to 1200Z January 26th
January 25th to January 26th	UBA DX Contest, SSB	1300Z January 25th to 1300Z January 26th

Contest listings can be found at WA7BNM's contest calendar page

<http://www.dxzone.com/cgi-bin/dir/jump2.cgi?ID=238>



## At The Helm



Happy New Year Everyone!

I hope everyone had a good holiday and Christmas despite the weather. What a wild winter we've had so far. I hope nobody was without power for too long and that your damage was minimal. I was lucky, only 24 hours but my street looked like a war zone. All minor damage though. It does get you thinking about emergency preparedness and what measures you need to take to look after your family when a major event like this occurs.

Sounds like a subject for an upcoming meeting?

I hope some of you got to play in the RAC Winter Contest, these RAC contests are a lot of fun and give you a chance to say hi to a lot of Canadian ham's.

I found this interesting video of one of the Alberta Clubs RAC Winter contest, it is worth a quick view:

<http://www.youtube.com/watch?v=OYEvFu-2xA&feature=youtu.be>

Nice station and setup at that location!

Another noteworthy mention is that the ARRL starting with the December 2013 QST magazine is offering a feature article from each month free for download to members or non-members. It can be found at this link:

<http://www.arrl.org/this-month-in-qst>

And that brings us to my next subject; the January 21, 2014 General Meeting.

At this meeting we will be holding elections for all of our executive positions for a two year period.

As a club we are always looking for a few good people to help out, so don't be shy step up and join the fun. Again

Peter Johns, **VE3PWJ** at: [pjohns@rogers.com](mailto:pjohns@rogers.com)

has offered to be our Nominations officer. If you have an nomination for one of our executive positions send it to Peter and he will contact the member to determine if he will be accepting and will present these at the meeting.

There will also be the chance to nominate someone from the floor at the meeting.

Remember this is also your chance to have your say and vote so come on out, say hello, have a coffee and cast your vote.

If you can't make it to the meeting you can vote by proxy and if you wish to take advantage of this option get hold of one of your executive members and we will be glad to help you out.

Well that's all for now and I hope to see as many as possible at the January meeting!

73 de  
Steve  
VA3TPS



## Behind The Mike



Hi Everyone!!

Happy New Year and Welcome to 2014!!

I hope everyone had a wonderful Christmas break and you had a chance to enjoy some celebrating with family and friends as well as a chance to get on the ham bands and make that contact with that rare DX QSO or meet up with friends for a scheduled ragchew.

If you're into contesting maybe you had a chance to get on the bands the weekend of December 28th and participate in RAC's winter contest. I know I would've loved to but I had other commitments while it was on and had to pass. If you are into contesting and are filling up your schedule with the odd contest in January please take note to the few mentioned in this months newsletter.

I will be participating with Dave VE3GUD, Clint VA3KDK, and anyone else who is interested in Winter Field Day once again this year. The dates for this years event is January 25th, operating from noon that day, till January 26th, noon time end. Setup times are still to be determined but if you want to be included we can fill you in on the times in the near future. The three of us had fun last year participating in this one and those who hadn't heard of it before were definitely in the know after they finished chatting with us.

If you want to learn more about it check out this webpage. If you want to participate talk to Dave VE3GUD, Clint VA3KDK, or I VA3SBD and we will fill you in on our plans. We will be using VE3NSR, with our Repeater trustees blessing, as our callsign for this year so anyone is welcome to join.

The webpage for Winter Field Day is

<http://www.spar-hams.org/contests/winterfd/index.php>

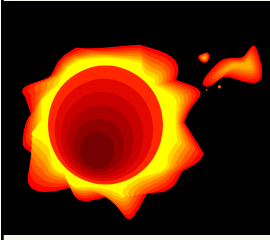
I have included on the front page of this newsletter a calendar of all the ham radio contests for the month of January so have fun and enjoy.

On another note. January's meeting is going to be our election. The nominations officer is once again Peter Johns VE3PWJ. I don't know who all he's heard from or what nominations he has received but if you know of anybody who would benefit our clubs executive please let him know the sooner the better.

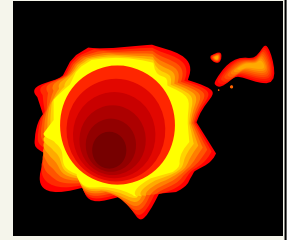
Well that's all she wrote ladies and gentlemen. Enjoy the read and we'll see you on January 21st at 1900hrs for our elections and monthly club meeting.

73's and 88's

Martha  
**VA3SBD**



## Propagation Reports by Ray Zambonelli VE3OUB



<http://dx.qsl.net/propagation/propagation.html>

### Ham Stories on Twitter

#### Voice of Russia to Continue Shortwave Broadcasting in 2014

**Tweeted by Steve Barfield on behalf of ARRL**

<http://www.arrl.org/news/view/voice-of-russia-to-continue-shortwave-broadcasting-in-2014>

#### Foundation for Amateur Radio (FAR) Invites Scholarship Applications

**Tweeted by ARRL**

[http://www.arrl.org/news/view/foundation-for-amateur-radio-far-invites-scholarship-applications?utm\\_medium=twitter&utm\\_source=twitterfeed](http://www.arrl.org/news/view/foundation-for-amateur-radio-far-invites-scholarship-applications?utm_medium=twitter&utm_source=twitterfeed)

#### FUNcube-1 (AO-73) Marks 6 Weeks in Space

**Tweeted by ARRL**

<http://www.arrl.org/news/view/funcube-1-ao-73-marks-6-weeks-in-space> utm\_medium=twitter&utm\_source=twitterfeed

#### ARRL-Sponsored Medium-Frequency Experiment Continues as Hams Hope for New Band

**Tweeted by Steve Barfield on behalf of ARRL**

<http://www.arrl.org/news/view/arrl-sponsored-medium-frequency-experiment-continues-as-hams-hope-for-new-band>

#### Congratulations to VE6SH, TIM ELLAM

**Tweeted by RAC BC SectionManager VA7MPG**

<http://va7mpg.ca/?p=5617>

#### 2014 Radiosport World Radiosport Names Officials

**Tweeted by RAC BC SectionManager VA7MPG**

<http://va7mpg.ca/?p=5438>

#### THE SUN HAS FLIPPED

**Tweeted by RAC BC SectionManager VA7MPG**

<http://va7mpg.ca/?p=5613>

#### THREE BC AUTHORS ARE IN TCA JAN/FEB 2014

**Tweeted by RAC BC SectionManager VA7MPG**

<http://va7mpg.ca/?p=5619>

#### BC HAS MEMBERS ON THE AMSTERDAM ISLAND DXPEDITION THIS MONTH

**Tweeted by RAC BC SectionManager VA7MPG**

<http://va7mpg.ca/?p=5635>

**British Columbia QSO Party 2014 is just a month away****Tweeted by RAC BC SectionManager VA7MPG**<http://va7mpg.ca/?p=5625>**AN EXAMPLE OF THE DAMAGE SOCIAL MEDIA CAN DO****Tweeted by RAC BC SectionManager VA7MPG**<http://va7mpg.ca/?p=5609>**January is National Hobby Month****Tweeted by ARRL's PR and Media department**<http://www.arrl.org/what-is-ham-radio>**MGM 1939 film: Radio Hams/More than a Hobby****Tweeted by AmateurRadio.com**[http://www.amateurradio.com/mgm-1939-film-radio-hams-more-then-a-hobby/?utm\\_source=feedburner&utm\\_medium=twitter&utm\\_campaign=Feed%3A+amateurradiocom+%28AmateurRadio.com%29](http://www.amateurradio.com/mgm-1939-film-radio-hams-more-then-a-hobby/?utm_source=feedburner&utm_medium=twitter&utm_campaign=Feed%3A+amateurradiocom+%28AmateurRadio.com%29)**An Interesting Article on Amateur Radio Emergency Communications in Wales****Tweeted by RAC BC SectionManager VA7MPG**<http://va7mpg.ca/?p=5569>**Just a Reminder to Be Prepared****Tweeted by RAC BC SectionManager VA7MPG**<http://va7mpg.ca/?p=5606>**One of the largest sunspots in years is turning toward Earth****Tweeted by DX World**<http://www.spaceweather.com/>**Signalink USB Sound Card Modifications****Tweeted by The DXZone Ham Radio on behalf of K7SFN**<http://www.dxzone.com/cgi-bin/dir/jump2.cgi?ID=29265>**January Fact Sheet: Make a Plan****Tweeted by KC5FM**[http://do1thing.com/things/jan?utm\\_source=buffer&utm\\_campaign=Buffer&utm\\_content=buffer8c5b3&utm\\_medium=twitter](http://do1thing.com/things/jan?utm_source=buffer&utm_campaign=Buffer&utm_content=buffer8c5b3&utm_medium=twitter)**Havard researchers are making a new type of battery using the same molecule found in Rhubarb****Tweeted by 3916 Nets**<http://gigaom.com/2014/01/08/these-harvard-researchers-are-making-a-new-type-of-battery-using-the-same-molecule-in-rhubarb/>**BC NTS AND BULLETIN TRAFFIC****Tweeted by RAC BC SectionManager VA7MPG**<http://va7mpg.ca/?p=5658>



## The Members Post



### Flex Radio 6000 Series Transceivers By Farncomb Le Gresley VE3BHQ

Around 1891 Nicola Tesla invented an electrical resonant transformer circuit which he used to produce high-voltage, low-current, high frequency alternating-current electricity. He discovered that his Tesla Coils could transmit electrical energy without wires and they were used commercially in sparkgap wireless telegraphy transmitters until the 1920s. Radio transmission was born!

Like every organism, discoveries were made which evolved into more complex specialized devices. A number of early experimenters were involved in the development of vacuum tubes, however, John Ambrose Fleming appears to be the first to use diode tubes for demodulating radio signals, and Lee De Forest in 1906 produced the first triode tube which made amplification possible. That was just 20 years before I was born! The vacuum tube ruled supreme until transistors were invented at Bell Labs in 1947 by John Bardeen, Walter Brattain, and William Shockley who shared the Nobel Prize in Physics in 1956. Although first considered by many to be interesting play toys which would never be important, solid state devices became the basis of all of our modern electronics when their true value and importance was discovered. This allowed the development of very complex integrated circuits which operate at low voltages and energy consumption. All of our present transceivers and computers with their small size and superb performance have evolved from Tesla's coils and sparkgap transmitters through the work of a large number of experimenters and researchers, many of them amateur radio operators.

Up to the present time, with the exception of CW, teletype and several digital modes, all of our amateur radio communications have been analog data. As far as I know, **every** modern traditional receiver uses two or more intermediate frequencies which involve mixing the signal with an oscillator. This results in a family of signals being produced at each IF stage, the signal frequency, the mixing oscillator, the sum of the signal + the oscillator, and the difference between the signal - the oscillator. The desired result of the mixing process is to produce a new signal at the IF frequency. The unwanted frequencies resulting from the mixing process must then be filtered out. It is very difficult

getting rid of all these spurious signals and they tend to clutter up your receiver with phantom signals which, even at low signal strength, can cause much needless QRM. What is the solution?

Meet the next stage in the evolution of communications, the SDR (Software Defined Radio)! There are several companies now producing SDR receivers and transmitters which are very complex and function in a completely different way than our current transceivers. The Flex Radio Company has been producing SDR radios for several years and they have evolved through several generations, each subsequent model being improved from the experience of the previous model. The current top model which was released several months ago is the 6000 Series which features the model 6500 and the model 6700. If you are interested in comparing these models go to [www.flexradio.com](http://www.flexradio.com) to find the differences between their specifications. The previous top of the line 5000 series has been discontinued and replaced by the 6000 series. The less expensive 1500 and 3000 models with fewer features have been improved and are currently available.

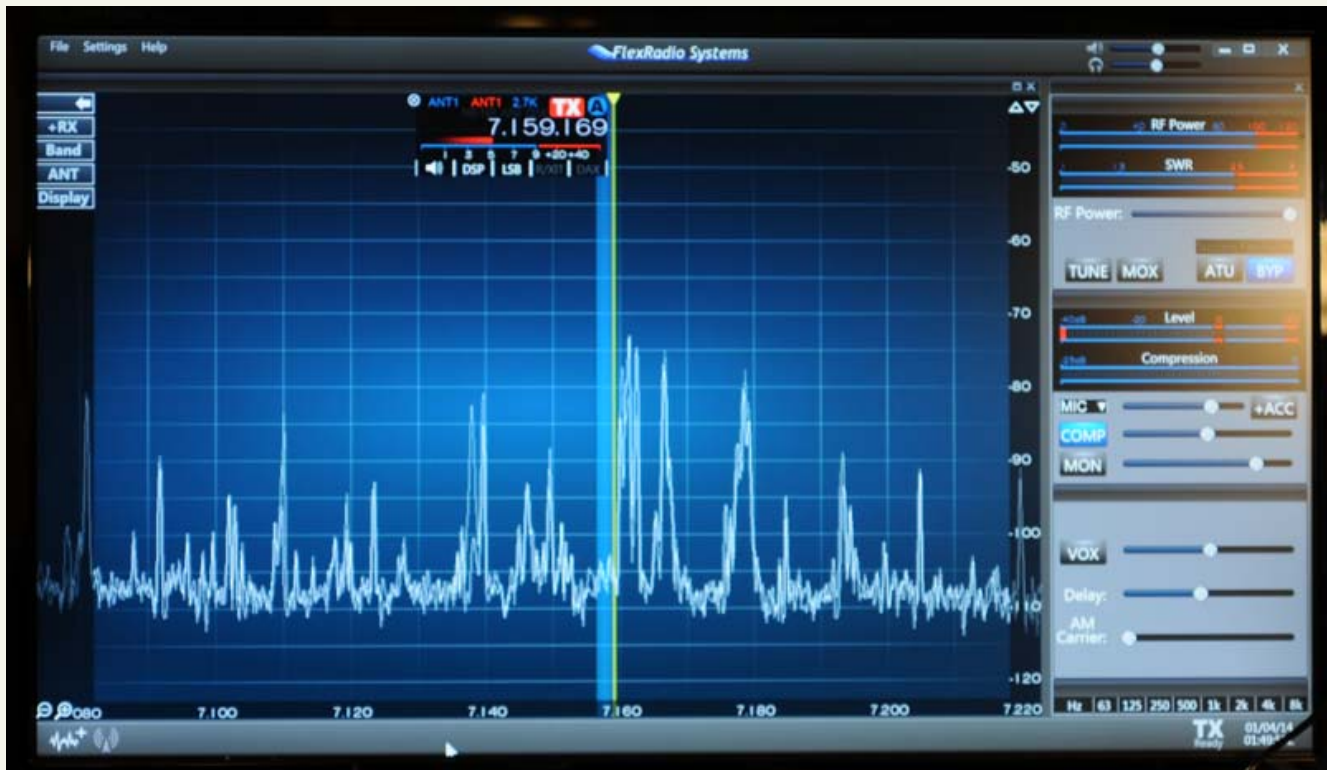
I assume the next question is how does an SDR radio work? In one word, WOW! For the remainder of this article I will assume that being licenced amateurs you are well familiar with the basic functioning of a modern transceiver which has a very selective front end with roofing filters and etc. This is the first place the SDR is different as it has a very broad front end which looks at the whole spectrum of signals. The next thing that happens is the analog signals pass into an analog to digital converter which converts them to digital signals. At this point very selective digital filters screen out everything except the frequency you wish to receive. This is called a "slice" which shows up as a vertical bar on a panadaptor display on your computer screen along with all the necessary controls and readout information you need, including the exact frequency, power out, SWR compression and etc. You also see all the signal activity in the frequency band of interest and also the quality of the signals. Anyone over modulating can be seen instantly and filtered out. The signal detection is by direct conversion at the frequency of the signal, and digital filters remove any spurious signals. Finally the received digital signal is converted to analog and sent to the speakers or phones. The audio quality is very clean and understandable. At the present time only CW, AM and SSB modes are operational, however, there will be quarterly software updates which will include FM and digital modes. At the present, digital modes can be used by the traditional way of feeding the audio out to a digital device. To update the radio it is only necessary to update the software on the computer. Incidentally, the 6000 series SDRs are network devices which have their own IP address and the data is fed back and forth between the SDR and computer via your LAN (Local Area Network). Some more than basic computer knowledge is necessary to get an SDR working. It is definitely not plug and play.

The Flex Radio 6000 series has a full featured 100 W transmitter which is reduced to 30 W for AM. The microphone feeds into the transceiver and the analog audio passes through an analog to digital converter for signal processing, and then a digital to analog converter, power amplifier, filtering and then an automatic antenna tuning unit, then out to the antenna connector. At the beginning I had some problems transmitting due to RF from the transmitter getting back into the system, however putting some ferrite chokes on the network cables and replacing the hand held microphone which came with the unit with a Heil PR781 desk microphone completely solved the problem. The audio signal reports on the air have been very complimentary.

Operating this transceiver is quite different than a traditional rig. If you need knobs to turn, switches to operate, buttons to push and a lot of hands on, this is not the rig for you! The unit consists of a relatively heavy, attractive black box 13" wide x 12" deep x 4" tall and weighing about 12 lb. There is only one switch which turns the unit off and on. On the front are jacks and connectors for the microphone, CW key and phones. On the back are a number of connectors for antennas, LAN, 13.8V DC power and a number of other connectors for speakers, transverters, a very accurate 10MHz frequency clock and etc. The computer connection is a single ethernet Cat 5 network cable to either your LAN router or directly to the LAN connection on your computer. The advantage of using a LAN is any computer on the network can be used for the transceiver while allowing the full use of another computer at the same time as operating on the air. Since this transceiver does not include a power supply a clean, well filtered 13.8V 30A power supply, preferably transformer operated is needed. I am using an Alnico DM-340MV which works perfectly.

Finally, I thought you would never ask, how do you operate the Flex 6700? Everything you do, with the exception of talking into the microphone or operating a key for CW, is done on your computer. After pushing the switch button on the transceiver and waiting a few seconds for calibration, "Flex - 6700" appears on the screen in the front of the unit. You then bring up the software on the computer, select an icon for the transceiver and then click "Connect", using the mouse. Immediately a full screen panadaptor appears showing 200KHz of the 20 Metre band with the frequency scale across the bottom and all of the signals shown vertically with their height varying according to their strength. If you wish to select a signal you put the mouse cursor on it and click. The signal appears in a vertical slice and fine tuning is done with the mouse, mouse wheel or a special optional "Flex Control" wheel. To select a specific frequency just click on the frequency box and type in the desired frequency. The band selection, filtering, magnification of slices, volume, compression and etc. are all done with the mouse. The quality and band width of each signal obvious and there is no problem filtering out any splatter or over modulation. Even on 40 metres all of the signals are either separate or can be filtered out. IT's different but you learn quickly!

Finally, this rig was expensive, but still cost less than the top-of-line traditional transceivers and it renews my interest in amateur radio.



*Photo of the display screen of Farney's flex radio tuned to approximately 7.160MHz*



## RAC BULLETINS



**2013-12-11**

**RAC Bulletin 2013-041E - 0-30 MHz Band Planning Committee Announcement**

<https://www.rac.ca/en/news/bulletins/2013/41-0/>

**2013-12-19**

**RAC Bulletin 2013-042E - Merry Christmas and Happy New Year**

<https://www.rac.ca/en/news/bulletins/2013/42-0/>





## News From Stan VE3TW At RAC



North East Ontario Regional Directors Report for January, 2014

First I want to wish you all the best and lots of DX in 2014.

Lately there has been some ink in various locations regarding the training of Amateurs for Emergency Preparedness. The following is my own personal opinion so take it for what it's worth. In the not too distant future volunteers will not be allowed to assist in emergencies unless they can prove they have received some training, be they Amateurs or not. Now before someone jumps on me, when the "ship hits the sand" the first people on the scene trained or not will do what they can. But if the emergency goes on, the second wave of volunteer responders will need to be trained. During the last SET this was really brought home to me. I was asked to go to our local seniors station (VE3SAO) and send an email via HF using a program called RMS Express. I didn't even know how to get the program running, never mind using it! Now after some training I am proficient with it. But learning how something works during an emergency just makes you a liability. So how do you get some training? First and best is to contact your local ARES group and say I'm interested in helping and receiving some training.

If you want to do some work on your own RAC has developed a training course and is available to all Canadian Amateurs. I would encourage you all to get some training so when called upon you're ready. Here is a link to get you started:

<https://www.rac.ca/fieldorg/RACARESTrainingManual.htm>

If you say I'm not interested in Public Service, you may want to browse it anyway as there is a lot of information and ideas that may be of some value to you.

This month sees one of the more interesting "contests" coming up. It's the Society for the Preservation of Amateur Radio (SPAR), Winter Field Day. Here is a link and I hope to work you from the field in this one.

<http://www.spar-hams.org/contests/winterfd/index.php?pg=2>

I am still hoping to get some questions on how or why RAC does what it does, this is your chance to quiz the Director. If you have any questions or concerns please email me at [ve3xt@rac.ca](mailto:ve3xt@rac.ca)

I had the opportunity to participate in the RAC Winter Contest operating /VE6 in Edmonton while visiting family. I managed to work 8 provinces with my KX1 at 2 W to an 8.5 M end fed with a pair of counterpoises. Hope your score was better than mine however and thanks to all those stations with great "ears" for hearing me.

Next month I hope to focus on RAC membership, any questions?

Bill VE3XT  
North East Ontario Regional Director  
Radio Amateurs of Canada



### Dates To Remember

**January 21st: 1900hrs**

Monthly meeting and general elections WhiteCliffe Terrace Retirement Residence

**February 18th: 1900hrs**

Monthly meeting WhiteCliffe Terrace Retirement Residence

**March 18th: 1900hrs**

Monthly meeting WhiteCliffe Terrace Retirement Residence

**May 20th: 1900 hrs**

Monthly meeting WhiteCliffe Terrace Retirement Residence

**June 21st to 22nd**

**ARRL FIELD DAY: Contact Martha VA3SBD if planning to join NSARC at Purple Woods**

**January 25th to 26th**

SPAR Winter Field Day talk to Dave **VE3GUD** or Martha **VA3SBD** if interested in joining us

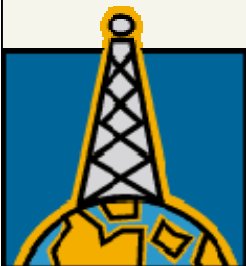
**April 15th: 1900hrs**

Monthly meeting WhiteCliffe Terrace Retirement Residence

**June 17th: 1900hrs**

Monthly meeting WhiteCliffe Terrace Retirement Residence

**July 1st: Canada Day and RAC Canada Day Contest**



### Contest Calendar for the beginning to Middle February



Date	Contest	Time
February 1st to February 2nd	Vermont QSO Party	0000Z February 1st to 0000Z February 2nd
February 1st to February 2nd	10-10 Int Winter Contest SSB	0001Z February 1st to 2359Z February 2nd
February 1st	Minnesota QSO Party	1400Z to 2359Z February 1st
February 1st to February 2nd	British Columbia QSO Party	1600Z February 1st to 0400Z February 2nd
February 1st to February 3rd	Delaware QSO Party	1700Z February 1st to 0100Z February 3rd
February 1st to February 2nd	Mexico RTTY International Contest	1800Z February 1st to 1759Z February 2nd
February 8th to February 9th	CQ WW RTTY WPX Contest	0000Z February 8th to 0000Z February 9th

## Contest Calendar for the beginning to Middle February

Date	Contest	Times
February 8th to February 9th	New Hampshire QSO Party	1600Z February 8th to 2200Z February 9th
February 15th to February 16th	ARRL Inter. DX Contest, CW	0000Z February 15th to 0000Z February 16th

Contest listings can be found at WA7BNM's contest calendar page

<http://www.dxzone.com/cgi-bin/dir/jump2.cgi?ID=238>



## Remembrance Day At Camp X



(L to R) Col (ret) Adrian White, Public Safety Canada & **VA3ZWB**, Steve **VA3TPS**, Capt. Mootu 2 Intelligence, Ralph **VE3CRK**, Clint **VA3KDK**



# COMMUNICATE WITH KENWOOD

## TS-590S HF + 6 Metre Transceiver



*Reveals signals that would be hidden to lesser rigs.*

DSP technology has been taken to the next level with the TS-590S. A 32-bit DSP is deployed from the IF stage forward, the TS-590S marks a bold new chapter in Kenwood's proud history of making compact, high-performance transceivers. The heavy-duty TX design is capable of withstanding long hours of operation under grueling conditions.

## TS-990S HF + 6M and Dual RX!



*Nothing else like it on the market today!*

Dual TFT displays and dual receivers along with ethernet, USB and optical ports set Kenwood's new flagship top-of-the-line model apart from anything else on the market. 200W output. Built-in power supply and auto tuner. More info on our web site.



## TH-F6A Tri-Band HT with Wide RX

- 5W on ALL THREE BANDS! (3 power levels)
- Up to 8 groups of 50 channels per memory bank
- Wide RX from 0.01~ 1300 MHz\* AM/FM/CW/SSB
- Built-in CTCSS encode/decode/DCS
- Time out timer and auto power off
- MIL-STD 810 for vibration, shock and light rain
- 7.4 Volt 2000 mAh Lithium Ion battery
- Built-in battery charging system

## TM-D710A Dual Band Mobile with TNC

"APRS" data communication system capable of exchanging position information, messages and operating frequency.

- 1000 memory channels
- 50W on VHF and UHF
- NOAA weather alert
- Amber or green display
- Built-in AX.25 compliant TNC
- NMEA 0183 GPS I/O port
- Sound card interface built-in
- Dual receive even on the same band



## TM-281A 2 Metre Mobile

- 200 memory channels
- 65W output
- Alphanumeric display
- Weather alert feature
- Front firing speaker
- Illuminated keys
- Multiple scan functions
- Rugged mil-spec construction
- CTCSS/DCS encode/decode



## TH-K20A 2 Metre 5.5W HT

- Compact and simple to use
- Weighs just 7.4 oz (210g)
- 200 memories with 6 digit memory names
- Full 5.5W output
- Rugged waterproof MIL Spec design
- Backlit display and keypad
- CTCSS encode/decode + tone burst
- Includes li-ion battery & drop in charger

## TM-V71A Dual Band Mobile

Compatible with EchoLink® radio VoIP system.

- 1000 memories
- 5/10/50W VHF/UHF
- Invertible front panel
- Cross band repeat
- Weather alert feature
- Multiple scan modes
- RX 118 - 524 MHz & 800 - 1300 MHz (less cell)
- Dual receive even on the same band VxV, UxU
- CTCSS encode/decode & 1750 Hz tone burst
- Detachable face with optional separation kit



May - Aug M-F 9-5 Sat 9-2 Sept - Apr M-F 9-5 Sat 9-3  
10-1380 Hopkins St., Whitby, ON L1N2C3  
Tel: (905) 665-5466 Fax: (905) 665-5460

1-888-426-1688  
www.DurhamRadio.com

