Rambler

Newsletter of the
Ottawa Valley Mobile
Radio Club Inc. (**OVMRC**)
Volume 49, Issue No 6

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Reminders…

Club Meeting · · · · · · **Jan 20**
7:30 P.M.

Club Exec. Meeting · **Jan 27**
7:00 P.M.

Rambler Deadline · · · **Feb 4**

Feb Club Meeting · · **Feb 17**
7:30 P.M.

Club Sugar Shack Brunch

Gerry Trottier, VA3GLT, and myself are organizing a brunch at a sugar shack located a short drive East of Ottawa. This is an early notice to measure the level of interest.

The plan is to set up antennas and rigs, have brunch of bacon etc and do some operating. Likely cost for the brunch will be $12 to $15 per head and will be inside the log cabin that houses the maple syrup boiler. Tentative date is Saturday 12th March, but this is to be confirmed. Friends and family are welcome, just let me know if you are interested and how many, so we can get a measure of the numbers. If you want to bring a portable station then please do. If you want to just have the brunch that is fine too. I plan on running a PSK station and most likely the rigs from the OVMRC trailer will be there . You will need to supply your own antenna but AC power is available in the log cabin. It would be good if we can operate on a number of bands across HF and VHF.

I will post more details and specifics next month.

E-mail me at va3stl@rac.ca or see me at the next meeting.

73 Alan Steele

Rambler

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OVMRC Repeater

147.300 MHz(+)
444.200 MHz(+)
53.030/52.030 MHz

OVMRC web page
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Webmaster: John Rodger,
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OVMRC Life Members

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Doug Carswell	VE3ATY
Doreen Morgan	VE3CGO
Ed Morgan	VE3GX
Bill Wilson	VE3NR

Club Website

The OVMRC **Rambler** is available on-line at the club website:

http://www.ovmrc.on.ca/rambler.htm

Sponsors

The **OVMRC** acknowledges the following organizations for their support of our activities:

Bytown Marine, Ottawa, ON
Elkel Ltee, Trois-Riviéres, QC
Kenwood Electronics Canada Inc., Mississauga, ON

The Rambler is produced using Corel's Ventura™ 8 software.

The OVMRC website is hosted by Magma Communications Ltd.

Amateur Radio Exhibit
VE3JW
Web Site

http://ve3jw.tripod.com

Canada Science & Technology Museum

NextMeeting
Jan 20
Rambler Deadline
Feb 4

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Meeting Minutes

Patrick Tunney
VA3CMD

December 9, 2004

The Meeting was opened by Paul VE3CPH @ 19:45.

Duanne VE3ODD introduced Elias VE3EKZ to make the presentation this evening.

His Topic was Using "RF Fingerprinting & Wireless Profiling", a very informative presentation on the current state of cell phone fingerprinting and wireless technology.

A vote was taken to decide the Jerry Wells Award this year. The winner of the award goes to Ernie Jury VE3EJJ

Door Prizes

We had three door prizes given out:

Larry VE3WEH-flashlight;

Ken VE3SRS flash light; and

VA3REG won a battery charger.

The 33 & 1/3 draw was won by VA3REG who won both the first and second pot for a total prize of 32$

RAC Bulletin 04-032E

Third party communications regarding tsunami disaster areas

In the wake of the Tsunami/Earthquake Disaster, in response to questions from Canadian radio amateurs, Industry Canada has advised RAC as follows:

Canada has no objections to its licensed radio amateurs passing international communications on behalf of third parties in support of an emergency or disaster relief in the countries affected by the recent tsunami and earthquake, provided that the affected country allows its radio amateurs to carry on such a communication.

This is in keeping with the recent "FINAL ACTS WRC-03 WORLD RADIOCOMMUNICATION CONFERENCE (GENEVA, 2003)" where paragraph 25.3 (2) states that "Amateur stations may be used for transmitting international communications on behalf of third parties only in case of emergencies or disaster relief. An administration may determine the applicability of this provision to amateur stations under its jurisdiction."

Under normal circumstances, Canadian radio amateurs must respect the third-party agreements and arrangements noted in Industry Canada's Radiocommunication Information Circular RIC-3 - Issue 2, dated April 2002. Canada has concluded agreements or arrangements with the following countries to permit the transmission and reception of international communications by Canadian amateurs on behalf of third parties: Antigua and Barbuda, Australia, Bolivia, Chile, Colombia, Costa Rica, Dominica, Dominican Republic, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Israel, Jamaica, Mexico, Nicaragua, Paraguay, Peru, Saint Vincent and the Grenadines, Trinidad and Tobago, United States of America, Uruguay, and Venezuela. Under normal circumstances radio amateurs in Canada are obliged to respect these agreements.

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http://www.worldvision.ca/home/index.cfm
World Vision Canada

http://www.care.ca/care_e.asp Care Canada

http://www.oxfam.ca/ Oxfam Canada

http://www.savethechildren.ca/en/index.html
Save the Children Canada

Web Resources

Alan Steele
VA3STL

A very clever loop

We usually take for granted how a radio receiver stays locked to a signal. The use of phase locked loops (PLLs) in receiver circuitry can keep a the frequency very stable. For an explanation of PLLs and how they work see the 9 page pdf file at

http://www.radioelectronicschool.com/reading/pll.pdf

There were attempts to increase frequency locking prior to the widespread use of PLLs and one effective method was the Wadley loop. This was invented by Dr Trevor Wadley of the Telecommunications Research Labs in South Africa. For a brief outline of the history see

http://www.barlowwadley.it/story.htm

It is interesting to see that the development of the first transistor based Wadley loop. Was an amateur radio project.

Now, it should be noted that this `loop' is a feed back loop in an electronic circuit. For an explanation of the operation of the loop see the Shortwave Magazine article that is reproduced at

http://www.barlowwadley.it/techs.htm

Scroll down to the link to the 4 page article called "The Non-Phase Locked Loop An appreciation of clever design" (which is incorrectly listed as published by Radio Communication). This has a good explanation of how the loop works and study Fig. 1 in the first page when reading the text.

Another explanation can be found at

http://www.siliconchip.com.au/cms/A_30512/article.html

Wadley went on to produce a commercial portable receiver that used this frequency locking approach and the radio was called the XCR-30, see

http://www.rigpix.com/miscrx/barlowwadley_xcr30.htm

This was not the first receiver sold with the Wadley loop, the Racal RA17 was likely the first. See

http://www.webex.net/~skywaves/commrx/RACAL/RA17.htm

If the website is correct then the receiver sold for quite a price, starting at $1000 at the start of production in 1954 rising to $2400 in 1967, at the production end. The receiver seems to have initially been built for the Royal Naval, which in an interesting twist should have been a Collins radio – see the article. At 67 pounds in weight this was not a portable radio, unlike the Barlow Wadley XCR30. The RA 17 was updated and became the RA 117 and was built into the '70s. A number of other receivers were built using the Wadley-Loop and are mentioned at the bottom of the following link.

http://www.qsl.net/vk3jeg/b_wadley.html

I learned about the Wadley loop in the UK in the 90's through the Shortwave Magazine articles and when I came across a Yaesu FRG7 at a hamfest (or `radio rally' in the UK) I bought the set for a reasonable price, complete with manual. The FGR7 or "frog 7" is possibly the most commonest Wadley loop receiver available on the used market. It was sold under the Sears Roebuck brand name as well as Sommerkamp (in Europe). Rig details can be found at

http://www.rigpix.com/yaesu/frg7.htm

http://foxtango.org/foxtangofrg7.htm

I do enjoy my FRG 7, as a broadcast AM SW receiver it is excellent, although it performs poorly on SSB, but I suspect a previous owner may have tried a modification or two.. Other owners agree on the good performance, see

http://www.eham.net/reviews/detail/979

Other Wadley loop rigs are the Realistic DX-300 and the Drake SSR-1

http://www.dproducts.be/drake_museum/ssr-1.htm

So how good is the Wadley loop? Well, if one goes to the web page

http://www.barlowwadley.it/literature.htm

and scrolls down to the reproduced article "The big match" by Francois Steyn you can see how it faired in a comparison that a group of South African Dxers conducted when they tested a range of serious portable SW receivers (mostly Sony models) and included the BW XCR30. Without giving too much away it beat the venerated Sony ICF 2001D!

If you want to listen to the performance of the BW XCR30 go to

http://www.barlowwadley.it/sounds.htm

and listen to some of the .ram sound files (listed as track 1 to 12 at the bottom of that page). For comparison there are also tracks with a Kenwood R5000 receiver, which is a significant DX receiver, see

http://www.dxing.com/rx/r5000.htm

It is interesting to hear how this old portable XCR30 performs.

South Africa has recognized the technical achievement as it is listed as number 4 and 27 in a list of great South African inventions

http://cooltech.iafrica.com/science/341184.htm

Should you want to buy a BW XCR30 be warned they are rare (remember South Africa did have sanctions applied during the 1970's) and it is reported that one did go for US$620!

http://www.barlowwadley.it/market.htm

If anyone has used (or owns) a Wadley loop receiver – maybe a Racal or a Drake - I would be interested to talk to them. Drop me an e-mail or see me at a meeting.

Finally, we are all well aware of the tragedy and devastation due to the tsunami in the Indian Ocean. These websites may be of interest if you want to help.

http://www.tsunamireliefnet.com/?
Main page (note the echolink node)

http://www.tsunamireliefnet.com/?do=frequencies
HF frequencies

http://www.tsunamireliefnet.com/?do=links
Related links

http://www.redcross.ca/article.asp?id=000005&tid=003
Red Cross Canada

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