GROUNDWAVE

Vol. 18, Nr. 7 VE3RC, VE2CRA April 1968

MEETING

Time: Wednesday 3 April, 1968, 2000 hrs.
Place: NRC Sussex Dr., Room 3001.
Program: VHF: A Look at Things Above 50 MHz.
How 50 MHz works and sounds by Jerry Harbottle, VE3AGU, and Ray James, VE3CUA.
144 MHz latest Developements, by Reed Easton, W5PSY.
Plumbing for 432 and 1296 MHz, by Randy Smith, VE3BDX.
Way-out DX by Moonbounce, by Alan Goodacre, VE3BZS.

There was a time back about 1935 when VE3PL, a VHF pioneer in the Ottawa area, decided that since he would be away all summer hunting dinosaur bones in Alberta, he should leave his super-regen receiver... with Jim, VE3JW, to do some listening. Jim reported one day that he heard some fellers talking in New York City. Jim was convinced about what he had heard, but it was quite a few years later that many others finally agreed that he had in fact witnessed an "opening". Even tho most of us accept the fact that "DX" can be heard on the VHF bands, some of us have not actually heard it with our own three ears. To this end Jerry and Ray have collected some tapes that should convince any remaining doubting Thomas.

They have also assembled some specialists in various things, such as Reed, to tell us what to expect if and when we get a receiver going on 144MHz. Or Randy who has been running 'power' on 432 and 1296 MHz. And Alan, who has an antenna farm over near Aylmer(gets away from the TVI we suppose) where he has had some success bouncing signals off the Lunar surface. All this it is hoped will whet your interest in VHF, or at least let you discuss it knowingly the next time you are on 75.

As you can see, we VHF'ers sometimes get carried away. Following all this will be:

Some Business, like your views on Slow-Scan, with a demonstration by Syd Horne.
Coffee and ragchew (about VHF of course).

Note: The particular question on Slow-Scan at the moment is whether it should be permitted, on an experimental basis, in the Canadian allocation of the 14MHz band, where it could be relatively clear of QRM.

ACTIVITIES AHEAD

The Mobile Club Auction is still on 27 April, at EMO Hq. on 495 Richmond Rd.; opens at 0930, Auction starts at 1300. Coffee and sandwiches available at modest prices, lots of parking,. Get the cellar cleaned out and enjoy Daylight Saving time that starts that night.

May 1 meeting will be home-brew night. Call Eric Ilott and let him know what you will have there.

June 5 will also be Election night. A Nominating committee is already active.

June 8-9: VHF QSO Party.
June 22-23: FIELDDAY.
Sept. 7-8, VHF QSO Party.

March MEETING

It was indeed a pleasure to meet Ray Smillie again, from the Bell Telephone Co. His illustrated talk of the new developements already on the market and the plans for future communication systems, was very enlightening. As usual we had a capacity audience.

WHY VHF ? by Tom Harp, VE3GAF.

For the uninitiated, DX on 50 MHz groundwave is 100 miles plus. While for more exotic modes of propogation such as aurora and scatter, 1000 miles is more the order. Equipment ~~of~~ for groundwave work is minimal for distances of 100 miles: 60 watts of CW or AM is quite effective with a beam, topside. For longer haul groundwave of over 150 miles, SSB is the popular mode with a minimum of 100 watts PEP desirable. (More power makes for better copy).

Exotic VHF propogation modes such as aurora and scatter require more power for consistant results. 100 watts is minimum, with a kw desirable. Come to the meeting and find out more about it.

Some of the calls heard on groundwave: VE2ASG, DAT, DFO, SH; W2DXN, DRZ, EAP, RQB, K1GYT; all 100 to 200 miles.

VHF SPLATTER

There is a lot of experimenting going on in various corners of the bands. A current series of tests is between Ottawa and Montreal, with several Ottawa stations such as VE2BMH, VE3AGU, 3GAF, 3CGD, and VE2ASG on the other end. Mike, VE2ASG, is running 3 - 4CX250's with 500 w output into a beam. Very interesting tropospheric conditions are being observed with relatively long period fading. Ralph, VE2BMH, is running 112 watts to a 5-el beam, up 40ft, and although communication has not been Q-5, it has been very encouraging. The mountain at Rigaud possibly accounts for much of the attenuation of signals.

Another series of tests that Jerry, 3AGU, has been trying has borne positive results in two DX contacts on SSB. Jerry has wirked Ray, 3CUA, about 2.5 mi., and Ralph, 2BMH, about 8 mi., running between 5 and 10 mw PEP from a transistor SSB rig. As the technique is developed and more linear stages are made to work, he hopes to bash out about a watt pretty soon. Not much you say?. Well who else has a SSB final that they can stick their finger into without getting electrocuted?.

VHF ARTICLES NOTED IN THE RSGB BULLETIN 1967

Simple 144 Mhz converter	Dec.
70 Mhz transistor converter	Feb.
144 Mhz CW and SSB transmitter	Aug.
432 Mhz Transistor converter	Apr.
432 Mhz converter using FETs	Feb.
432 Mhz Veractor tripler	Feb.
1296 Veractor Tripler	Oct.
FET Receiver for the VHF Bands	Dec.

1296 MHz in Canada. as noted in the RSGB Bul.

George Elliott, VE2LI, Montreal is running 8 watts to a helix ant used in a 4 ft dish or in a corner reflector. These are on a tiltable 50 ft tower together with 144 and 432 MHz antennas. He regularily skeds Don Waters, VE2HW, about ten miles away, but expects to hear from Ottawa and Albany (150 mi).(On 144 he runs 500 w to a long yagi. On 432 he runs 600 w to 4 - 24el yagis, all home constructed).

ADS: FOR SALE

TH-4, KW Tri-band beam, recently reconditioned: $100.
24" RCA TV: will dicker; Bob Knapp, VE3CDG, 722-8808.

Two racks: 3 ft cabinet type; 5 ft open type; Burt Coy, 825-1387.

WANTED

QST, 1945 and back: have 1946 to 1956 for trade: Bert Best, VE3SH, 745-3151.

Receiver, 80 to 10, good condx, reasonable price; John Watson, 722-3941.

Tubes: 6SR7, 6A6: trade for 12v equivalent; Bill Cousins, 224-8735.

VFO, HG-10 or equal; David Avis, VE3BNA, 829-0823.

2-sockets for 4-65A: 6v, 7A, Fil Transformer: 400 ma swinging choke: John Morgan, VE3CYM, 838-2388.

SUNSPOTS

Since the sun rotates once every 27 days, large sunspots may reappear two or three times. A critical period of their effect on propogation is when a spot is facing the earth. When any flare (a sudden emission of energy or particles) occurs near this point, the effect is greatest. The first effect is caused by a large increase in ultra-violet radiation, which may produce intense ionization in the D layer, resulting in a Dellinger radio blackout, during the daytime. Lower frequencies are affected more than higher, but a severe flare can cause an almost complete blackout.

Between 10 and 30 hours later, slower-moving charged particles emitted with the flare, reach the earth and may produce a magnetic storm, and frequently aurora. Usually associated with such a storm is an increase in E of F layer ionization. Although we are now almost at the peak of solar activity in the present half-cycle, the sunspot numbers (or solar flux) is only about half of that occuring in the previous half cycle. The effects have been quite noticable in fewer VHF 'openings' and in extended good conditions on 15 and 20.

ARCOVERS

Jim Strain is now in his new abode: not new tel nr -...- Gerry King is no longer 3BST: now VE3LX -...- Stan, 3DQ, is now Art Editor for The Ontario Amateur: congrats Stan -...- deadline for May GW is 17 APr. rumors have the Ont Convention in Brantford this yr .-.-.

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