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N O R T H   S H O R E   R A D I O   C L U B    B o x 171 O S H A W A    O n t a r i o

EXECUTIVE & OFFICERS    1976

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APRIL 1976

LAST MEETING

While we weren't able to attend the March meeting, we know that it was very interesting and our guest speaker from the Metro Toronto Police department gave an interesting description of the facilities in use by the communications department. Farny, 3BHQ brought along a sample of his home-grown ham equipment and if you are not enthused by now with what he turns out during even one year, then you are not going to build any of your own gear. Farny's enthusiasm has sparked a number of projects which are currently under way or have been completed in the past.

NEXT MEETING    Tuesday    April 13    8 p.m.    Durham College    Oshawa

DON'T MISS THIS ONE!    THE FAMOUS CN TOWER INSTALLATION.

Paul Edgley, VE3PQ is well qualified to comment on a large number of slides which show the growth of the TOWER from the foundation up and include shots of the inside antenna installation, transmitting equipment and more than we are going to say at this time. We have seen this show and more films from the CBC installation and it is a MUST if you are wondering how it all gets up in there. MARCONI of England won the contract for the antenna system and it involves a lot of engineering to get it all working.

BITS N' PIECES

In a recent bulletin, Ed, 3CUI expressed the hope that the club might purchase a rotor for Field Day purposes. Well, due to the generosity of the Code & Theory class, and in appreciation a class was available, 9 people, namely Fred, Trueman and Bev Henderson, Bill Best, Joe White, Les Highfield, Vic Naderer, Frank Hochleitner and Chris Pigott, each contributed \$6.00 for a total of \$54.00 toward the cost of purchasing one. The executive would like to thank the above, who incidentally, were, or now are members.

(2)

For their thoughtfulness and generosity, I wish them good luck in the upcoming exams.

For the benefit of those people who haven't been attending the class regularly, the D.O.C. Examiners are coming down from Toronto and will be at Durham College for Amateur and Advanced exams on May 5, which is a Wednesday-exact time is not definite, but plan on about 7.00 p.m. Enquire at the Main Door, S.E. corner of the building, as to where they are taking place.

\* \* \* \* \* 73, Vic, VE3ANX (PRES)

### 2 Meter Transmitter Hunting

The first transmitter hunt for 1976 will be held in April. The date will be finalized at the April meeting. For those who do not have dimensions for the loop, it is made from 40" of co-ax with the braid removed from 20". The co-ax is then made into a closed loop. The braid of the feedline is connected to the braid of the loop-the centre conductor of the feedline is connected through a small trimmer capacitor to a point 3" from the braid connection. In my case, the trimmer measured 10 pf. at resonance.

The hunt will start from the Oshawa airport and at a given time. Probably 7.00 p.m. The hidden transmitter will broadcast on 147.12 Mhz. for 1 minute and again at 5 minute intervals for 1 minute duration until found or the mission aborted at 9.00 p.m. Points will be as follows:

1 point for each minute used up on the hunt and 1 point for each 1/10 mile travelled. The hunter with the least points totalled will be declared the winner. The winner will be the hidden transmitter for the next hunt. It will be up to the individual to use whatever method they feel best to find the transmitter using compass and topo maps, triangulation or direct sighting.

The hidden transmitter will be within a 10 mile radius of the airport and it is felt that loops will operate at this limit. As the game is experimental at 2 meters, changes will be made as found necessary.

Ken, VE3FPP

### ELECTRONIC CLOCKS

Farny, 3BHQ notes that the problem of clocks gaining time can be cured by changing the plug to a 3 wire cord with the ground connected to the foil and the addition of 3 more by-pass capacitors. The A.C. line should be by-passed from each side of the line to the foil as should the D.C. output (across the filter capacitor). Use 0.1 mfd. Mylar or equivalent at least 200 volt rating across the line and 25 volt or higher rating across the 12 volt D.C. output. The problem of gaining time is caused by R.F. or spikes on the line and has been cured at Farny's QTH. (3ATI needs a new chip) See page 527 in the 1976 ARRL handbook for further details.

"MINUTES OF THE NORTH SHORE RADIO CLUB MEETING FOR  
TUESDAY, 9TH MARCH 1976"

The meeting commenced at 8:10 pm in room C249 of Durham College, with a record 50 persons-plus attending, 4 of which were guests.

Following the reading and adoption of February's Minutes, visiting-speaker John Gay (EVL) of the Metropolitan Toronto Police Department rose to describe in interesting detail the new \$3.5-million dollar G.E. communications system recently adopted by the Toronto force.

The meeting broke for coffee at 9:30, but at 10:00 John returned answering questions directed at him by members.

Ken (FPP) next took names and suggestions for the Club's 2-meter transmitter hunt (to be held sometime in late--or after--April).

Farney (BHQ) proceeded to describe to the membership his latest homebrew effort, a 4-transistor receiver. At 10:25 pm, the meeting adjourned as members followed Farney to the Durham College radio-shack for a test of the receiver.

ONTARIO CLUB NETS

Local lovers of roundtables are invited by other clubs to check-in to the following informal gatherings:

- (1)- SSB--3735 KHz @ 11:00 am Sundays (Metro Toronto Amateur Radio Club);
- (2)- SSB--28400 KHz @ 10:00 am Sundays (Scarborough Amateur Radio Club), and,
- (3)- CW--3690 KHz @ 9:00 pm Thursdays (Metro Toronto Amateur Radio Club).

But don't forget our own Tuesday evening 2-meter FM net, and the Sunday morning 10-meter 'phone/cw net. As pointed-out recently, one sees a lot of locals attending the general meetings but hears few on the air. The TVI/RFI can't be that bad! (hi). QUA?

WWV AND BAND CONDITIONS

Every Amateur should employ a fool-proof method to ensure that his signal stays within Amateur frequencies (it's the law); one of the best ways to do this, of course, is to zero-beat a harmonic of a 100-KHz crystal calibrator to WWV (on 2.5, 5, 10, 15,

20, and 25-MHz), and then check the limits of your favourite band with the appropriate harmonic from the calibrator.

However, WWV is great for its propagation forecasts as well. Whether or not you're a DX'er, this information (broadcast at 14-minutes past each hour--ex. 9:14, 12:14, etc.) is invaluable in determining general band conditions.

Each forecast is now spoken by the announcer (at one time, the data was transmitted in International Code) and is immediately adaptable, with common sense, to the particular band on which you plan to operate.

This system is being used with success here, and is in no small way responsible for my obtaining 5 new countries on 80-meters cw (in one night!) and 3 new ones on 15-meters (on a Saturday afternoon). An easy-to-read description on these forecasts, for those wishing more detail, can be found on page-23 of the June 1975 issue of "QST" magazine.

-Eddy (VE3CUI)

#### T.V.I. RE-VISITED

Let's face it, more members in the club, than would like to admit, have TVI problems. But, like the man says, "The cures for TVI...are not black magic".

To help track-down your particular trouble, try this simple test: take your rig upstairs and place it close to your television set (the TV should be connected to an outside antenna, and not to the cable system, in this test). Next, connect a shielded dummy load---be it the Heath Cantenna, a well-shielded light bulb, or whatever (as long as it's shielded)---to your rig, and switch to the band(s) which you operate most. Now, tune-up the transmitter to its specified ratings anywhere in the bottom 25-KHz of the cw sub-band, and, while holding the key down, observe channels 2 through 7 (the most trouble-prone) on the TV.

If you're getting even a speck of "crosshatch" on the TV, you've trouble in the form of a poorly-shielded transmitter; rest assured, even the most sophisticated of ground systems and low/high pass filters won't prevent you from causing interference in your area, because your rig's poor shielding is enabling harmonic currents to flow on the outside of your transmitter, filter, etc. (with good shielding, all RF energy, harmonic or otherwise, flows inside the rig's cabinet and low-pass filter).

Check your transmitter's physical construction critically: is the meter shielded? That large hole in the cabinet, unprotected, will let out a lot of RF energy (i.e. harmonics). Does your rig's

cabinet employ lid-type construction to allow you to glance down into the "works"? If so, when closed, does the lid make good electrical contact with the rest of the cabinet, or are there cracks and slits caused by painted surfaces and a shortage of screws?

It's truly amazing how manufacturers have slacked in the "shielding department" of to-day's transmitters (quite a different story 10-20 years ago!); shielding simply the final stage, usually just the amplifier tubes, is not enough for TVI is not always caused by the "end" of the rig---direct radiation from stages previous to the final amplifier are often at fault, too (thus the need for a good enclosure).

Take a good close look at the chapter entitled "Interference To Other Services" in any ARRL Handbook, and then act accordingly. Neither you (nor your neighbours!) will regret it.

-(Tnx A.R.R.L.)

#### ODDS 'N ENDS

Local: Bill (BRT) is cavorting lately on 160-meters; best DX to date? VE3CUI! (March) .....

..... Field Day '76 will see VE3NSR/3 with a new motor to go with the Club quad; see Vic (ANX) for details..... Gord (AMQ) recently obtained the Drake Twins (now there's a pun); smoke your cigars to celebrate the fact that his TVI has been reduced thanks to the new gear..... George (GOU) is going to buy kilo-bucks Collins gear; something like that anyway, because he's been absent for a few weeks from 10-meters (QRM)..... Albert (HAB) has everyone beat with his 5-watt transceiver; 59 reports for his QRP rig from Scarborough stations, while the rest of us here struggle to be heard with 200-watts.

Skip: The D.O.C., as reported by the Canadian Division of the ARRL, is busy writing rules & regulations for a new Canadian Novice ticket; comments on the results will be welcome as soon as the D.O.C. is finished, i.e. early this Summer..... 10th January 1976 @ 1500Z saw unprecedented Solar flare activity, with consequent effects on radio propagation; if you were on at that time, the ARRL would appreciate a note from you, listing anything unusual which happened across your dial..... Sable Island (VYØ?) and St. Paul Island (VXØ?) will be activated again this Spring by Canadian Amateurs; if you missed them the first time, here's your chance..... with postage rising for overseas letters (& QSLs) more & more QSL cards are going the Bureau-route (bulk-mail your cards to the appropriate Bureau address per country, as listed in each July & December "QST"); or, for \$6.00 per year, join the "Canadian DX Association" & use their free out-going QSL services.



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DAY RALPH  
454 HOLCAN AVENUE  
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