

SPARKS

North Shore Radio Club

NEWS

VE3NSR and
VE3OSH - FM
BOX 171,
OSHAWA, Ontario, CANADA

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EDITOR'S THOUGHTS R

JUNE, 1969.

Well, Field Day will soon be upon us and Claude, VE3WG is hard at work trying to organize a successful contest. Claude is going to ask the club members for two things; "Enthusiasm" and "Involvement", these two words were stolen from Bert Titmarsh, VE3FPJ, the guest speaker at the Trillium Convention.

These two words are fairly long and not used in every day speech. Look them up and see what they mean. After checking their meaning, you will see what Dave, VE3FYB, was referring to when he condemned the club members and their attitude toward the banquet.

Ask Ken Aston, field day manager 1968, about Involvement and Enthusiasm. These two elements were missing; therefore, there was no field day.

Enthusiasm and Involvement are the two characteristics our President has been trying to instill in our club to make it more interesting and the members more knowledgeable.

When Claude gives his report at the June meeting and makes requests for material or personel, don't be afraid to get INVOLVED or show ENTHUSIASM. There are only two occasions when the club members are asked to donate their time to the club and they are; banquet and Field Day. If these elements could be put into a hypodermic needle everyone would be getting a shot on June 10th at 8:00 P.M.!

WANT ADS

WANTED -

2 meter gear - phone Jack, VE3ABV - 725-0159

Field Day Operators and Equipment - Claude VE3WQ - 623-3961

FOR SALE -

1 directional watt meter - 3 ranges, 10-25-100 watts
3 750 volt at 300 ma. oil filled transformers
1 Air Force test unit containing a 50 ua meter and a 50 ohm dummy load - \$15.00
an assortment of BNC, N, UHF coax connectors
an assortment of between series connectors
1 Pye 2 meter a.m. receiver

- Phone Dick - 942-5832 to check on prices.

1 (as far as I know) HR 10B RCVR, just built, aligned by Heath - \$150.

- Phone Ivan Williams - 839-3134

LAST MEETING

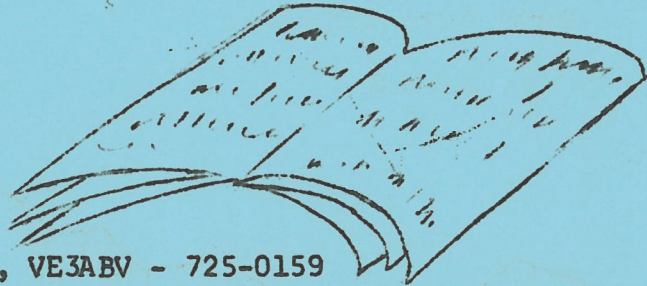
Ron Kreger, VE3DLC and Bud Fockler, VE3NE of the Canadian DX Assoc. gave us an interesting talk on DX operating; some of the do's and dont's. They told the DX'ers in the club the advantages of belonging to Canad'x.

Dave Green, VE3FYB gave the membership proper hell on its attitude toward attendance at the banquet. By the way, after all reckoning, the club lost \$18.

Claude, VE3WQ, gave a report on Field Day progress.

NEXT MEETING

Claude, VE3WQ, will want to make all arrangements for Field Day. Please attend so he can find out whether you are going to attend and what gear you can bring.



TUNING AROUND

Bill Hughes, VE3CKK, a disabled ham who lives in Oshawa was made a full member of the N.S.R.C. This procedure came about on a request for aid for the blind hams in Toronto. The opinion of the membership was that we mend our own fences first, so Bill, welcome to the club.

Ted Brant was presented with an A.R.R.L. Handbook for his efforts over the years as editor of the club bulletin.

Ham Radio Magazine which appears to be a step ahead of the other ham magazines gives credit to a Canadian ham for his developments in the field of slow scan T.V.

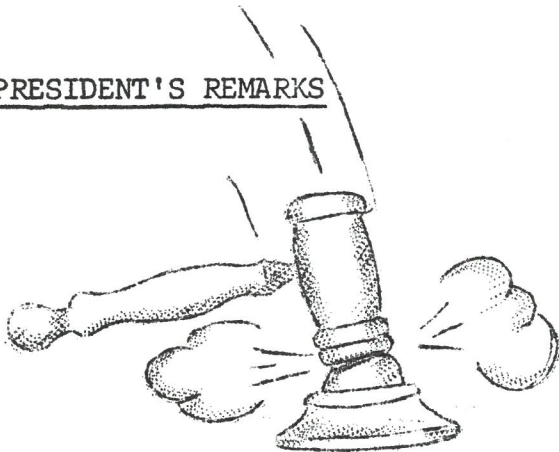
Another development disclosed in this book is a new type of antenna, called the "Bonadio Antenna" of which there are four types. Basically, they seem to be three or four dipoles of the same length but with a common feed point and a system of switching different elements. There is not much said about the length of the dipoles but stresses the importance of the antenna tuner. This type of antenna requires a fair amount of room and gives good reports.

Dave Green, VE3FYB, worked a DJ station a couple of weeks ago on 15 meters; his first DX contact. Gives you a funny feeling doesn't it, Dave?

About twenty countries were heard on 20 meters at VE3DFD's gth the other night, all within a space of 20 MHZ and ten minutes.

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PRESIDENT'S REMARKS



I wish to welcome Bill Hughes, VE3CKK, to the club. Bill is in the unfortunate position of being confined to a wheel chair but this does not dampen his enthusiasm for Amateur Radio, he is one of the most active amateurs in the city. Bill calls into most of the nets on 80 meters and does a good job at it too. For those who were not at the last meeting, Bill was given an honorary membership in the club.

Summer activities may be decided rather quickly, so if you receive a notice of a meeting at some location in Ontario County, please plan to attend.

The list that went around at the club with your name on it is to determine the interest of the members for possible group discussions, building projects, etc. There will be more on this later.

Last of all Field Day. The ball is rolling. Field Day is what you make it, so climb aboard. You'll be glad you did.

JUPITER MOON BELIEVED CAUSE OF RADIO NOISE.

Pasadena, Calif.

One of Jupiter's 12 moons may cause the powerful bursts of radio noise that have puzzled radio astronomers for years.

Dr. Peter Goldreich of California Institute of Technology said the moon Io, as it passes through Jupiter's magnetic field, acts as a generator, developing an electromotive force of about 700,000 Volts.

(thanks VE News)

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Don't forget the C. J. Picnic, it will be the 4th Annual Picnic, and it will be held at Havsumfun Park on July 13th, 1969, the Park is 3 miles east of Fergus, 12 miles north of Guelph, on the Banks of Bellwood Lake. Lee Durling, VE3VF, is the man to contact. His qth is Oshawa, phone 728-0321.

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Canadian General Electric Company is one company that has amateur radio interest at heart. From now until May 31, 1969, they are offering, free of charge, Great Circle Bearings and distances to all points of the world according to the ARRL DXCC list. This accurate from your individual QTH. To obtain a copy send a card (QSL) with your name, address, call and the longitude and latitude of your station as accurately as you can make it out. The address:

Canadian General Electric Company Limited,
Time Sharing Service,
1155 Dorechester Boulevard West,
MONTREAL 102, Quebec.

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JOIN NOW MEMBERSHIP FOR 1969

\$5.00 FULL MEMBER

\$2.00 ASSOCIATE MEMBER

Send to ROY MILLER, Box 43, BROUGHAM

NAME _____ CALL _____

ADDRESS _____

PHONE _____

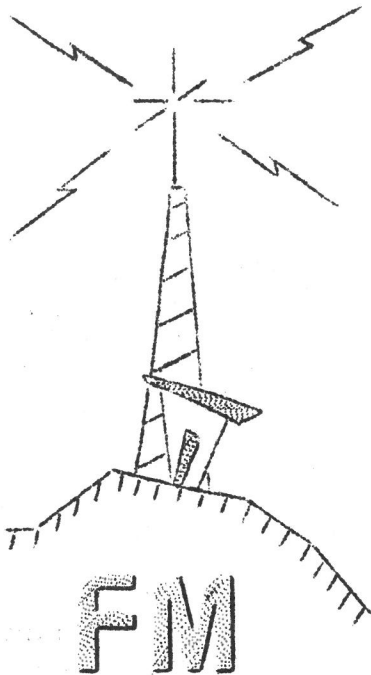
ENCLOSED	-	Money Order	\$5.00	Cheque	-	\$5.15
			\$2.00			\$2.15

VE3OSH - - OSHAWA REPEATER

INPUT - Channel "C" - 146.400 Mhz

OUTPUT - Channel "N" - 147.120 Mhz

June 1969



Our numbers grow every day! At this writing 40 stations have logged into VE3OSH greatly increasing Channel N activity. Some of the newer additions are:

VE3DFD, Peter, Whitby
VE3GNO, Lorna, "
VE3DOC, Ken, Oshawa
VE3ADO, Harry, Pt. Colborne
VE3AMM, Ollie, Peterborough
VE3BRC, Bill, "
VE3ATB, Bert, Islington
VE3BXA, Bob, Cooksville
VE3EPM, Bill, Toronto

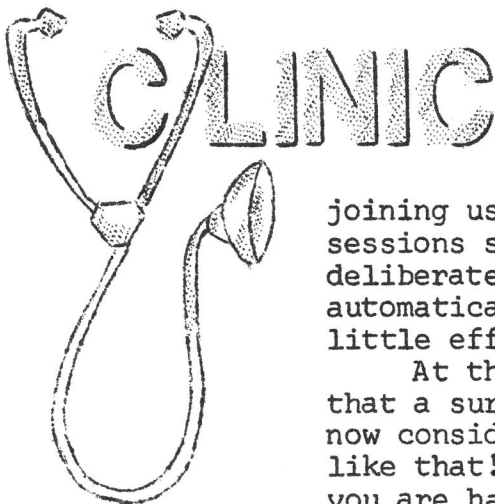
An unexpected check-in lately has been K8PFL Repeater Station in Alliance, Ohio, which evidently has our input channel for its output, and is heard frequently when band conditions permit. PFL is an "inverted" repeater station, that is, their input is higher in frequency than the output. Signals were first logged on May 4th on the station tape.

A totally unexpected turn of events occurred May 18th and 19th when WA9EAE's signature was recorded. It now appears that the Ohio Repeater's input is the same as the output of a CHICAGO station and the three stations (WA9EAE, K8PFL and VE3OSH) were "linked" for several brief periods and we have recorded Q-5 signals from the Chicago area to prove it. Ohio mobiles were commenting about these freak transmissions into their channel - never expecting (we haven't told them yet) that they are likewise being monitored by a Canadian station on a lonely wind-swept hill near the sleepy little town that bears the unlikely name of Oshawa.

FM NET

John, VE3GDK our NCS every Tuesday night at 7:30 p.m. is quite pleased with the increasing numbers who are turning up to check in, with or without traffic. On the second Tuesday of every month (except summer) the Net will be called 15 mins. early to allow members to check in and get mobile for the North Shore Radio Club

regular meeting which commences at 8:00 p.m. Simcoe Hall, Oshawa. (Notice that sneaky little bit of advertising!) Remember! Tuesday nights, 7:30 Channel "N" -- that's where its at!



The Clinic hasn't been getting too much activity lately which in a way is very good news and indicates that most of the newer gear can be put in operating condition without too much difficulty.

In another way its bad news, however, and we feel there are a number of stations who could be joining us on FM given the stimulus of our unparalleled clinical sessions slated for Thursday evenings when required. Notice the deliberate phrase "when required" because Clinics are NOT held automatically. We must hear from you in advance because of some little effort involved in assembling the necessary equipment.

At the risk of being considered somewhat critical let me say that a surprising number of stations could use some help, that now consider they are on the air and working properly. Don't be like that! Let's get together and help you work out any problems you are having.

VE3PBO

FM and FM Automatic Repeater Stations are surely enjoying one of the largest booms in modern amateur radio! New repeaters are springing up with exciting regularity, and among those recently to make itself heard is VE3PBO the brainchild of a group of FMers in PETERBOROUGH.

The station is situated a few miles South and East of Peterboro at an altitude of 750 feet above mean sea level. The location is temporary and it is expected to later move the station to more permanent quarters with an elevation nearer 1,000 feet.

There are presently only five mobiles working into the repeater but the VHF interest in Peterboro is quite large and it is expected before long to see more interest and converts to FM.

The station already boasts a code signature for identification when the station is activated---a 4½ min. partial shutdown when not in use---and automatic logging planned for the near future. A 3-sec. Carrier will turn VE3PBO on. Input is Channel "B" 146.340 Mhz and Output is 30-D Transceiver with an output of approximately 30 Watts to a 5/8-wave ground plane antenna. The Receive antenna is likewise 5/8 and both are side-mounted on the supporting tower closely spaced.

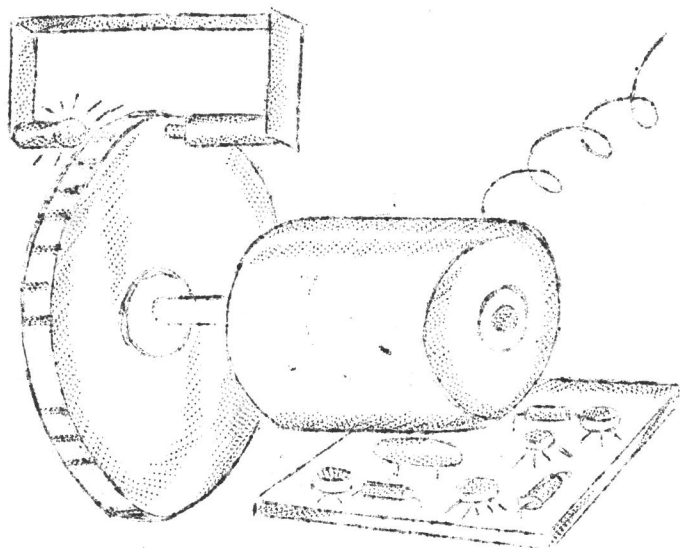
Coverage seems to be very good to the south extending down to Port Hope. The areas north of Peterboro suffer slightly because of the present location.

If you are vacationing or travelling through the area this summer drop in the .34 - .94 rocks and get acquainted with the Peterboro Club. Even if you don't presently own a "B" crystal you will find that Channel "A" simplex is also used by many stations. When available, we will be publishing the growing list of FM stations heard by PBO and if possible keep you up to date on new developments.

VE3AMM
Peterborough

VE3OSH - CALL SIGN GENERATOR

by
Bernie Sandbrook
VE3ATI



A most valuable addition to VE3OSH is its (CSG)--Call Sign Generator. It presently identifies the Repeater at regular 20-minute intervals, but, in future will be required to perform many more useful functions. The writer was given the task of designing and building the present model. It proved to be both interesting and time consuming in its development.

The circuits used to operate the device are taken from standard, much used solid state design and are here reprinted and combined for your interest and use if you wish. It is hoped that the following remarks will both stimulate and amuse its readers.

As noted in last month's bulletin VE3OSH's Call Sign Generator (CSG) after several weeks of operation developed a small problem which was easily remedied by changing a resistor. Also the addition of extra filtering of the power supply is responsible for it's present melodic and regular sounds every 20 minutes of the day. My first experiments with surplus motors to drive the code wheel ended in failure. Some refused to run when the temperature dropped to 15 deg. F and others were even somewhat unreliable in starting every time at room temperature. Finally a 5 rpm synchronous clock motor was installed and this works well. Problems with the photo-diode also occurred and the present model is a "card-reading device" supplied by Van, VE3ARV. The "logic" for the Generator was constructed on a printed circuit board, and these later modifications have all been possible without remaking the board. During earlier experiments an unshielded trigger wire caused the code wheel to sign more than once. Also parasitic oscillations of the continuously-running oscillator showed up as horizontal lines on the TV and the FM bands. A 56 uhy choke in series with the 12-volt supply lead cooled this down.

Referring to Fig. 1, a description of the circuit of the Generator follows: "A Twin-T oscillator composed of Q2 and Q3 runs continuously. A gate Q4 (which is keyed by clamp Q1 is normally hard ON but turns off when light falls on the photo sensor during the dots or dashes. Amplifier Q5 and the diode rectifier act to provide DC which keeps the wheel turning as long as there is audio output. IC₁ is a bistable flip-flop controlled by timer UJT1 and "reset" by the rectified audio. When UJT1 times out after 20 minutes its pulse output gates the Flip-Flop ON. Q6 energizes the Relay K1. This operates the Carrier-operated Relay (COR) turning on the station transmitter and the Motor M1 which turns the code wheel. Light through the code wheel reaches the sensor which conducts and turns off Q₁. This produces a positive voltage at the base of Q4 which allows output from the audio oscillator (Q2, Q3) to be coupled to the transmitter input in the form of dots and dashes. Q5 amplifies some of these audio pulses, diodes rectify them and the DC thus produced is applied to the OFF gate of IC₁. At the same time Q7 is also turned hard ON holding K1 energized until audio disappears (when the call sign is finished. The 27K resistor following the diodes acts to discharge the hefty 100 mfd capacitor when the call sign is finished prohibiting any repeat performance. UJT2 was added to the circuit as insurance that the transmitter does not remain on should the motor fail to turn. When the COR is energized, UJT_a starts to time out and 4 seconds later turns IC₁ back to its OFF state.

