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GEORGIAN BAY AMATEUR RADIO CLUB

BOX 592
OWEN SOUND, ONT.
N4K5R1

VOL. 5 N° 1
SEPT. '78

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N0H2C0

146.34

VE3 OSR

146.94

PRESIDENT'S MESSAGE

CQ all members of the Georgian Bay Amateur Radio Club and friends. As we approach the beginning of another club year we invite you all to share, with your associates, your experiences, via the club bulletin. We look with pride to past exercises, but we also look forward to better ones. If we each do a little, we will all benefit a lot.

Hope to see you all at the club meeting, 20:00 hrs, Thursday, September 21st. The meeting is tentatively scheduled to be at the home of John, VE3IEV; however, Ian, VE3HIP, is trying to arrange for our old meeting site, the CIAG Computer Building. Listen in on the net next Sunday for details. At the meeting we will be scheduling for the Flesherton Split Rail Festival (Sept. 22, 23, 24) and the car rally (Sept. 30).

Because you stand with your executive, we will have better results on all bands.

73

Ian, VE3HXX

BITS AND PIECES:

Heard Charlie, VE3AYM, on OSR a couple of weeks ago telling Ted, VE3AEO, about a magazine called "ELECTRONICS TODAY". I don't want to start giving "plugs" for ham gear or magazines, but I feel this magazine is well worth looking into. I've been buying it for some time now, and really enjoy it. It's Canadian, it's loaded with projects, and it covers everything from ham radio to stereos. It is available at newstands in Port Elgin and Owen Sound and costs \$1.25 or \$12. per year.

Amateur Certificate courses will be starting soon in Port Elgin and, hopefully, Kincardine, Owen Sound, and Markdale/Flesherton. To stir up interest, the ARRL has produced several public service announcements promoting amateur radio, with recordings by Lorne Green, Dick Van Dyke, Bob Hope, and Edgar Bergen. I have written letters to CKNX and CPOS/CFPS and if favourable responses are received, I will obtain some of the tapes from ARRL.

73

Bill, VE3IHV

NEWSFRONT NEWSFRONT NEWSFRONT NEWSFRONT NEWSFRONT NEWSFRONT

It looks as though Amateur Radio will once again pioneer the next technological breakthrough in voice communications. From the same hobbyists that brought you the spark gap, amplitude modulation, and single sideband, we now have Narrow Band Voice Modulation (NBVM), a technique for compressing speech frequencies so that only half the normal bandwidth is used. According to QST, a series of articles on NBVM will commence with the November, 1978 issue. They also state that no mods are required to your ssb rig. The compandor units can be installed in your microphone and speaker leads. The technique was developed by two Californians and Tom Lott VE2AGF/W6. For more details, see QST, December, 1977, or send me a s.a.s.e. and I'll send you a copy of the article. (I bet Ted, VE3AEO, and Jim, VE3BFV, are already looking through their junk boxes for parts!!).

AMSAT, CANADA has apparently been re-vitalized with the election of new officers and a new Board of Directors, and plans are going ahead for the inclusion of a transponder on the SYNCOM 4 satellite. With the success of OSCAR 8, and PHASE III coming up, more GBARC members are bound to become involved in satellite work. Maybe Bill, VE3EFX, could give us a rundown of the latest developments at one of our meetings. Amsat, Canada has a new mailing address:

Box 7306--
VANIER, Ont.
K1L8E4

"Rally 'round the FM rig, boys." Somewhere the old rally call doesn't sound the same, but, nevertheless, don't forget about the car rally on September 30th. The Kitchener-Waterloo club promises lots of excitement on the rally up the Bruce peninsula. Dick, VE3BIS, informs us that we have about 22 mobiles ready to provide communications and more are welcome. The K-W club will be sending up a number of their own members, and with the temporary repeater on the CKCO-TV tower, there should be no problem covering the entire peninsula. If you don't have 147.69/.09 capability, don't despair: five-two simplex and 34/94 will also be needed, so get in touch with Dick, VE3BIS or Bill, VE3EFX if you haven't already done so.

Remember, the Georgian Bay Amateur Radio Club net is on the air every Sunday morning, 9:30 am, on or about 3.783 MHz. Check-ins are welcome from anyone, with or without traffic, 'phone or cw.

..... Ted's Scrap Book

Through the courtesy of Jim VE3BJV, you will find enclosed an article on a dipole using home brew type coils. The measurements given are for 40-80 but I imagine that with some playing around you might come up with an antenna for 15-20. Or you might go a step further and make an antenna for 40-80 and one for 15-20 and tie the whole issue together at the center and feed with the one piece of coax. If you wonder if the 40-80 type work just listen to Jim's signal when checking into our net on Sunday mornings. As with all dipoles, you can use any configuration that suits your space available or whatever. You can hang this as a horizontal, a verticle, an inverted Vee, an inverted L or drop one end and you've got yourself a slopper.


I had a most interesting QSO with Doc W3HNJ of Baltimore Md. He operates 40 meters only and uses a dipole cut for that band. There is nothing unusual about this, but the way he adjusts his SWR is rather different. He cuts his antenna to freq., using the formula in the Handbook i.e. for 7100mhz...66feet. He places a balun in the center, and feeds the antenna with about 60 feet of 52 ohm coax. Now we get to the nitty gritty..... He uses no antenna tuner and trims nothing.....not the antenna length or the length of the feed line.....all measurements remain constant...no change. To adjust the SWR to 1:1 he raises and lowers his antenna three feet at a time making notes of the SWR.

At some height above ground his SWR will be 1:1. Now for the punch line..... he claims that when your SWR has been reduced to 1:1 by juggling the height of your antenna above ground, you have at that point established the optimum height of your antenna above True ground and I mean True ground. True ground might be terra firma, it could be five or fifteen feet below the stuff you walk on. Each location or property could be different. We all know that energy will reach the antenna by coming in from space and making contact with the wire. The whole idea of this antenna height adjustment is to establish the point above True ground where energy coming toward your antenna, but missing the wire will penetrate the earth, be reflected up by True ground and strike your antenna in phase with the energy striking the wire directly from the sky. This will increase your signal by 5-10 db. When sending, the same thing works in reverse.

While thinking this over, consider.....many of us have trouble with our SWR when it is raining and the ground soaking wet.....could it be that our True ground has changed.... therefore our height above ground True ground that is, has changed ??????

I submit this not as fact but an idea worth consideration and maybe worth fooling around with.

Have Fun.....and Have a Care

 VE3AEO

Compact 80/40-Meter Inverted V.

The antenna shown in the diagram is for the 80- and 40-meter bands. It is only 10 feet (30.15 m) longer than a conventional 40-meter dipole, but gives good 2-band coverage. The dimensions were suggested by Art Smith, W6INI. The coils at A are made of #18 wire wound on 1.125" (2.86-cm) OD PVC pipe forms. Cut two 8 3/4" (22.22-cm) pieces of the pipe for the forms and drill two rows of three #42 holes 7 1/4" (18.42 cm) apart in each. Measure two 50' (15.24-m) lengths of the #18 wire for the coils.

Thread one end of one length of wire through one of the rows of holes in one form, allowing 1 1/2" (3.8 cm) of wire to protrude from the form. Close-wind the wire on the form and thread the remaining end through the holes at the other end of the form. Mount a #10 brass or stainless steel eye bolt in each of two PVC pipe caps used to cover the ends of the form. Then insert a #10 solder lug under each outside nut. Drill a #42 hole in each cap adjacent to the lugs. Coat the insides of the caps and the ends of the forms with PVC cement. Position the caps on the ends of the forms so that the ends of the wire protrude through the #42 holes near the solder lugs. Tamp the caps firmly into place and allow the cement to set. Scrape the enamel from the ends of the wire and solder them to the lugs. Use a hot iron, make the connections rapidly, and immediately cool them.

The center insulator can be fabricated from a 5/16" (0.8-cm) piece of plexiglass, an SO-239 coaxial chassis jack and a U clamp to fasten the assembly to the mast. The ends of the antenna can be insulated by lengths of

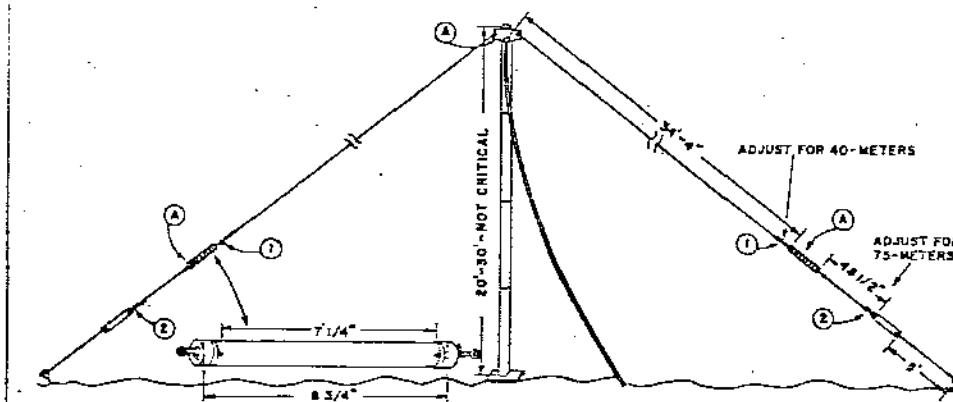
plexiglass or standard antenna insulators.

The dimensions in the diagram are approximately correct for the 7.2- and 3.8-MHz phone bands. Assemble the antenna using these dimensions, allowing another 12" (28.5 cm) of wire at points 1 and 2. For the lead-in, use RG-58 for short runs and low power; RG-8 for long runs and high power.

Feed r-f power through an SWR bridge into the antenna at intervals across the 7-MHz band to find the frequency of minimum SWR. Take measurements in smaller frequency increments as the SWR approaches its minimum value, which should be about 1:1 at the resonant frequency of the antenna. If the minimum SWR occurs at a lower frequency than desired, shorten the 7-MHz section of the antenna at points 1. If minimum SWR occurs at too high a frequency, lengthen the antenna. Make the adjustments two or three inches at a time. After 40-meter resonance is established, transfer operations to the 3.5-4-MHz band and adjust lengths at points 2 for minimum SWR at the desired frequency on that band.

After the resonant frequencies of the antenna have been established on both bands, point 1 can be soldered. Proximity to large objects changes the resonant frequency on the 80-meter band, however. Therefore, it is advisable to make it easy to change the lengths at points 2, if the antenna is going to be used in different locations. The center of the antenna should be as high as possible; but if the center height is increased, raise the heights of the ends, too, so that the apex angle does not become too acute.

Design for a compact 80/40-meter inverted-V antenna. Lead-in is RG-58 or RG-8 depending on length and power.



Minutes of Meeting

Sept 21/78

The Sept. meeting of the Club was held at the C.I.A.C. Building.

The minutes were read via 2 meters by the Secty.

A note of thanks was extended to Bill VE3IHV for his great job on Feedback

activation by Jim VE3CRV that Bill VE3IHV proceed to get cards printed for feedback with

The 3rd class mailing stamp printed on it

Motion seconded by Bill VE3FOT - Carried

Motion by Jim VE3CRV that Reported Council dues be paid for this year & next. seconded

by VE3EFK. Carried

Jim reported he had a letter from D.O.C. asking for list of Executive's

A short report was given by VE3JIF regarding the Crests

VE3CRV gave a report on the repairs work and on the future battery installation

and also further work to be done on the repeater.

VE3EFK discussion was held regarding the rally

John Wylie } Jim Pad
Ron Richards }

BSF } accept
Ron Padman } financial
 } statements