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# FEEDBACK

## GEORGIAN BAY AMATEUR RADIO CLUB NEWS

Editor Bill VE3EFX

JUNE 1974

Executive

President Jim Vamplew VE3CRV

Vice Pres. Dick Shave VE3BIS

Sec. Treas. Jack Avis VE3DTS

The May meeting opened at 7:40pm with 14 members and 3 visitors present. The minutes of the previous meeting were read and accepted. Jack, VE3DTS, intimated that the club funds totalled \$100.89.

A change in the club executive will take effect this month when Cy, VE3DQA, takes over from Jack as Secy/Treas.

Jim's radio course ended with twelve people taking the exam on May 14th and of that number, only one failed the code test, and two have to do the oral again. This is an excellent result of what was a short course and has encouraged Jim to run another course starting in the Fall this year, and perhaps it will, be possible to include instruction for those wanting to qualify for the Advanced exam next spring.

The operation of a ham station at the Coffee Break in Harrison Park was given favourable comment. The only problem encountered was with the 2m antenna which didn't allow us to operate through the repeater.

The club address is now BOX 592, OWEN SOUND. All correspondence should be sent there unless it is for publication in Feedback, in which case my address is more direct.

It was suggested that a tour of the Allen Park satellite communications station would make an interesting meeting, so Dave VE3DXO will try to organise it for the month of October.

I mentioned that there will be no issue of the newsletter in July or August as the club will not be holding meetings in these Months, however the Sunday we will continue to be on 3.783 mhz at 9.30 EDST. There is also the possibility of us starting up a C.W. net for the newly licensed members, either before or after the fone net and maybe on a frequency in the C.W. portion of the band.

I suggested a dues increase in 1975 to \$4 and \$2 for Full and Associate memberships respectively.

The June meeting will be held on Thursday, 20th, June, at 7.30pm in the C.I.A.G. computer Bldg. Owen Sound This is only two days before Field Day, so final details will be worked out and any questions can be answered. I will show those who will be logging for the operators, how to watch for duplicate contacts and keep the log of all contacts made. Time will be in GMT and a carbon copy made so that we can keep a record of the contacts when the original is sent in to the ARRL.

I expect that we will use VE3EFX/3 for the contest and I will take full responsibility for QSLing as required

Bob, VE3DFS, will bring along a complete station including tower and beam, accommodation and one other operator. The second station will consist of the HW100 belonging to Dick, VE3BIS, the trap dipole for 5 bands, belonging to Jim VE3CRV, and the rig will be operated from a trailer provided by Cy, VE3DQA.

Jim, VE3CRV, will bring along a spare rig, the FT101B, in case we run into problems. There will also be a spare generator available so we should manage to make a respectable score.

Everyone attending the Field Day will be responsible for bringing their own food supply and if you plan to stay overnight be sure to have a sleeping bag or blanket along as it usually gets cool in the early morning.

Information on how to get to the site will be in this issue of FEEDBACK on another page. The property is at Johnston Harbour and belongs to Art VE3HP. This is the first contest the club has entered, So let's see what we can do.

#### FOR SALE

- 1- Turner 454 mike \*\*\*\*\*\$10
  - 2- Vibroplex key in mint condition \*\*\*\*\*\$25
  - 3- 10 metre beam \*\*\*\*\*\$15
  - 4- Eico grid dip meter with manual \*\*\*\*\*\$25
  - 5- Heath grid dip meter with manual \*\*\*\*\*\$20
  - 6- TenTec keyer model kr-40 mint condition \*\*\*\$60
  - 7- BC221-AK frequency meter with calibration \*\$80
  - 8- Ex USAF Rx-.15-15mhz complete with spare tubes, and outboard power supply \*\*\*\*\*\$70
- All the above belongs to John Menzies, VE3GLR 74 McLeod Crescent, London. Tel. 439-8289

There is a lot of good stuff there for the new operators that will be getting on the air in the next few months. I suspect the rx is a TA 12 and will be a good c.w. receiver and can be used as a second set after the class A ticket is obtained.

On page one I said that two of the people who took the exam would have to take the oral part again. Latest info is that three are required to sit the theory again and the other eight have received their certificates now and are in the process of applying for their cells.

The annual fishing trip on Morice Doran's boat will take place on Saturday July the 20th. The cost is \$5 per person and room is available for up to 20 people. If you are interested in going, get your name and the cash/cheque/money order or I.O.U. in to Morice, VE3BDA, Box40, Southampton.

The group will assemble on the dock at 9am and will return around 5pm.

Dick, VE3BIS, has suggested a swap night at the club so if you have any bits and pieces that you want to sell or swap , bring them along and see what you can get for them. I suggest that 10% of all sales should go to the club coffers.

On May the 26th Dick Barry Ferguson, and I went up to look over the Field Day site. It looks like an ideal spot and we should have no trouble in setting up. Everyone who plans to attend should be there by 18.00z, that's 2pm on June 22nd We start the setup at that time, and the faster we can get on the air , the more time we will have to operate. The contest ends at 21.00z on June 23rd. Getting to the Field Day site is easy if you take Hwy #6 Worth past Wiarton and when you get to Miller Lake general store there is a Shell gasoline sign. This is on the West side of the road, and you keep on for another 4.2 miles to the turn off for Johnston Harbour. The turn is signposted and just beyond

the sign is a small yellow shack on the right side of the road. After you make the left turn on to the Johnston Harbour road you have 4.5 miles to go on a gravel road and we will put signs up at the driveway so you won't miss it. I think there should be no problem if you watch for the Shell sign and take it easy from there.

Bill, VE3HGQ, is on the repeater now and putting in a nice signal to Tiverton. I was his first contact and VE3BIS gave Bill #2 the same evening.

We are very close to the sunspot minimum now and in a few months Old Sol ought to start producing more spots with the resulting increase in good propagation on the H.F. bands. Conditions on 20m have been poor lately and it takes a good signal to work much in the way of DX. The IOm band is virtually useless these days and 15m doesn't produce much either. Occasional openings on 20m in the morning produce the odd VK and the Europeans sometimes make it over at the same time but in the evenings the South Americans come in very strongly and if you are a shift worker you have a better chance to be on when some of the rarer ones show up.

VE3EFX has the Brantford club award now Commemorating the 100th anniversary of the invention of the telephone in that city. With 29 Canadian prefixes confirmed and 30 worked, I only need one more card for the Maple Leaf Award 1st class.

Dick, VE3BIS and VERNE, VE3BSF worked some rare dx on 2m the other day in the form of a VE6 who was operating aeronautical mobile from a jet flying out of Malton airport.

Art, our host for Field day writes for the Warton Echo and wants a writeup on the activity plus some pictures for publication. We must get an article into the Owen Sound paper too, and if we get coverage from the Port Elgin paper that will be enough. We get bonus points for publicity of the operation in the contest, and I'd like to make a good score in this first club effort.

The G.B.A.R.C. net is on 3.783 mhz every Sunday at 9.30EDST.

# The BIG Stick

Here is an antenna for all the keen two meter types. It will give you omni-directional gain of about 6db. It works above a set of ground radials so you have no feedline in the radiation field worry about. It's not too hard to build either.

First of all, let's see how it is

supposed to work theoretically. Starting with two dipoles, end to end, fed by a quarter wave matching section, you can obtain a gain of close to 2 db. If you spread the dipole further apart you get the extended double zepp antenna with gain of about 3db. Notice that part of the quarter wave matching section lies in the same plane as the dipoles. Since there is relatively little current flowing in this part of the matching section, it does not affect the radiation to any appreciable extent, even though the current is out of phase with the dipole currents.

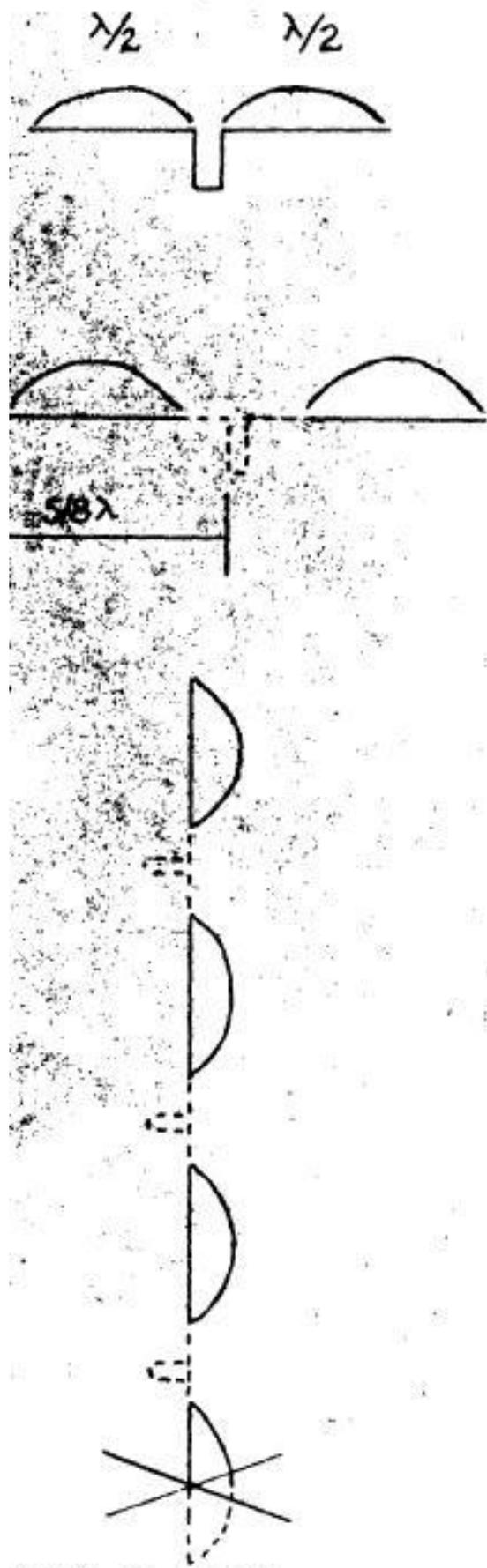
If you can operate with two dipoles in this fashion, you should be able to operate more if you connect the ends together with matching or phasing sections. Now that you have a string of dipoles the next problem is that of feeding them. This would not be so difficult if the array were operated horizontally but we want vertical polarization. Looking at the bottom half wave section by itself, lets you turn it into a quarter wave ground plane fed with a gamma match. that is simple enough. Now stick the string of dipoles back on the bottom section, adjust all the matching sections, and you have a dandy antenna. So much for theory. How can we support the thing considering that we have 16 feet from ground radials to tip. The key is a fibreglass arm made for the gem quad. It is about 12-13 ft long, lightweight, strong and it has low wind resistance. The bottom section is the support mast, with ground radials fastened 28 1/2" below the end. Then the quad arm is clamped to the mast with two hose clamps. Next form some aluminum ground wire into elements and phasing stubs, all in one piece. Connect the lower end to a bolt through the aluminum tubing mast (1 3/8" dia.) and tape the rest of it to the mast. A better way would be to use a fibreglass patching kit to bond the wire to the arm. The top will stick a bit above the arm but that should be no problem. You could extend the arm with a short fibreglass rod to support the last foot and a half of wire.

The construction of ground radials and gamma match is the hardest part. I used a flat plate with a hole to pass the mast, and an L shaped plate with a U bolt for the bottom mounting section. The U bolt holds the assembly to the mast, and the ground radials and coax connector mount on the flat section. I used 1/4" aluminum rod for the radials and gamma match. These can be fastened very nicely with wire rope clamps. A 30pf trimmer is used to tune out the reactance of the gamma matching rod. The adjustable shorting clamp is a strip of 18 gauge aluminum formed around the mast with a wire rope clamp.

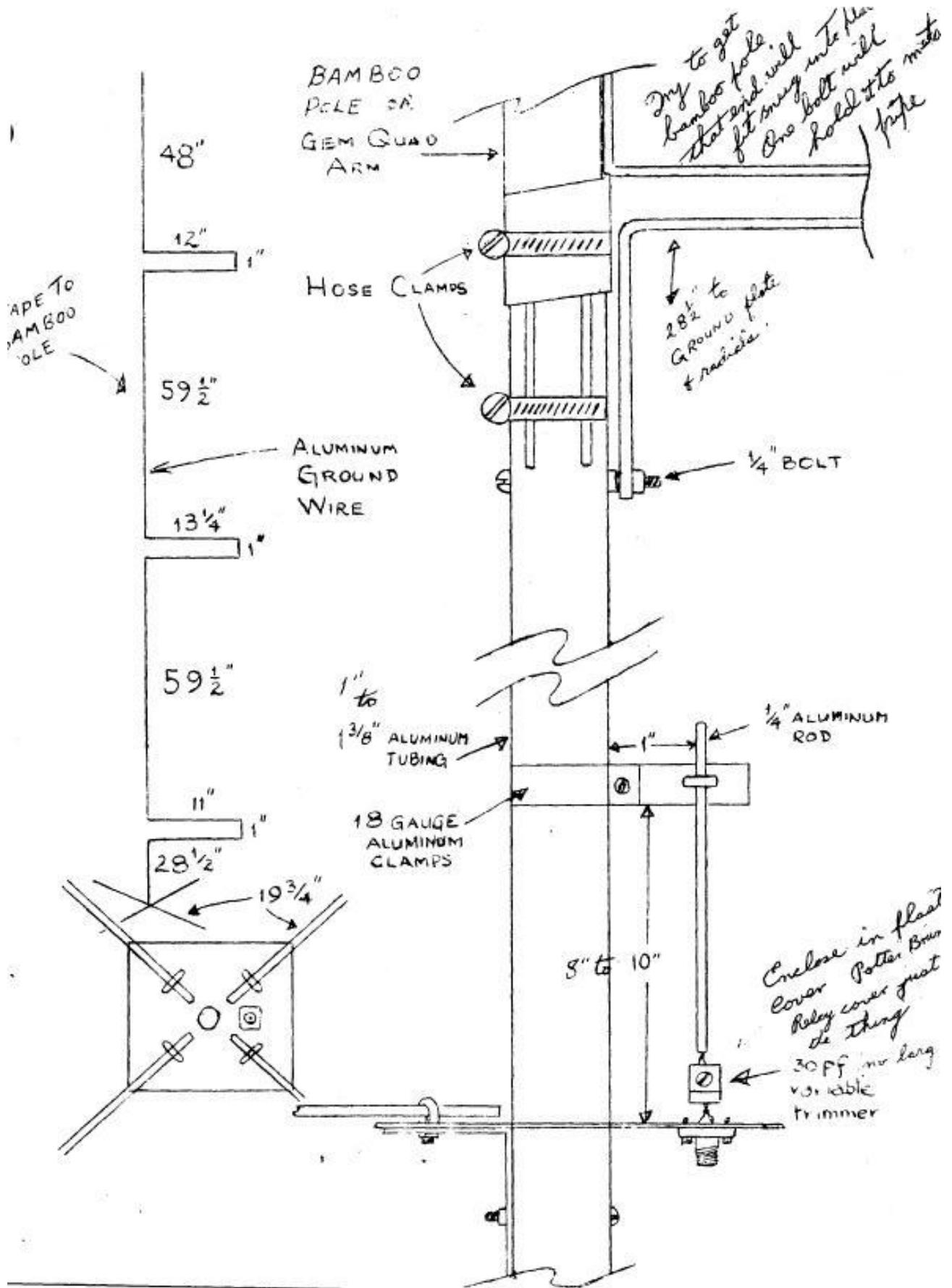
The dimensions as shown gave the best operation. SWR is close to 1:1 at 147.33mhz. A gamma match of 10" seems long for 2 metres but that is what I came up with after many hours of experimenting. If you construct the top wire part exactly as shown and make the gamma match adjustable, you should have a low SWR.

The antenna info was sent down by Charlie , VE3AYN, and he invites enquiries if you run into any problems. You'll find him regularly on the repeater. Tnx Charlie.

The newly licenced amateurs , who are looking for equipment or parts to build gear should contact any of the active club members for information on. where to send for the necessary catalogues.



contd. on page 7.



The beams are all down at the VE3EFX QTH for some antenna mods but I am able to get into the repeater using a ground plane and the trap dipole is available for the other bands so we are not QRT.

VE3AFN, Jack has challenged VE3BIS, Dick to a game of crib on the July fishing trip so if Dick is beat by a whitecaner, it'll be interesting to hear him talk his way out of that one. Incidentally, Morice may be at the meeting so all you tightwads who won't spend 8c on postage can pay for your trip the effortless way.

If there is enough interest this Fall, I'll run a cw contest for the club members who got their licences this year. It can be held on a weekend if that is suit able for the majority and I'll throw in a prize for the top scoring station, if we can get sufficient support. The rules will be in Feedback for the month the contest is to be held..

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