

May 2000

FEEDBACK



The **OFFICIAL** Newsletter

of the

Georgian Bay Amateur Radio Club Inc.

P.O. Box 113, Owen Sound, Ontario N4K 5P1

<http://greynet.net/~gbarc>

GBARC Meetings are held on the 4th Tuesday of every month except July and August in our CLUBHOUSE, Unit 6 Rockford Plaza, Rockford On. 5km S of Owen Sound. 7:30 p.m.

Breakfast Anyone?

Any Saturday 9:00 a.m., at the Rockford Esso.

Nets

80 metre net on Sunday at 9:30 a.m. on 3.783 Mhz. Two metre net on Thursday at 9 p.m. on VE3OSR 146.94-Mhz.

Submissions

are always welcome.

Send them to

Tom va3ts@rac.ca

This Month

Minutes of the last meeting

The Presidents Report

Canwarn Training

Lightning Detectors

Mailbox



GEORGIAN BAY AMATEUR RADIO CLUB

Minutes of meeting, April 25th, 2000

Meeting was called to order by Bernie VE3BQM at 7:30 pm. Motion to accept minutes as written made by Jack DTS. Seconded by Joe JNA.

Treasurer report given by Jim CJM. Bank balance is \$ 5,523.28. We have issued the landlord 12 post-dated cheques starting April 15 2000 to April 15 2001 totaling the agreed amount as per original motion. 32 members have now paid the levy. Only expense for the clubhouse to date has been keys. All other furnishings and equipment have been donated by club members.

OLD BUSINESS

The 94 repeater was down – hit by a power spike which knocked out the power supply and battery ran down. Battery had to be recharged. There was no damage to the repeater.

Bike tour is the same day as field day which starts and ends in Owen Sound. It is a week long. Makes it difficult for our club to participate. Nothing planned at this time.

Motion by Bob XOX, seconded by Jack DTS to keep the present club crest. Anyone wanting to order one please sign list at club house as soon as possible or contact Jim CJM before the May meeting. Cost is \$ 5.00 each.

NEW BUSINESS

Forming committees:

Ways & Means	Fundraising for the clubhouse. Keep membership costs down and promote club activities. Minimum of 5 members.
Club House	Communications to Landlord; Club layout (Meeting room and Radio room); Club rules.

Nominations Committee presented slate of officers for 2000-2001 as follows:

President	Bernie BQM
Vice-President	Bob XOX
Secretary	
Treasurer	Bob LKD
Auditor	Dave DXO
Newsletter	Tom TSA
Program	

Motion to rescind motion for points system. Money should be spent at club.
Moved by Jim CJM. Seconded by Bob XOX. Carried

FIELD DAY -planning discussions

Question if we can get the trailer from Sydenham Sportsman club as we did last year.
Joe JNA will look into this.

Discussion on whether to rent a tent for \$250 and a Port-a-potty

Volunteers needed. Randi and Gene will organize the event.

To help cover the cost of renting tent there will be a donations box for anyone wishing to contribute

Motion by Jack SEA to rent both the tent and toilet. Seconded by John JRF. Carried

The Secretary is to send a letter to the Georgian Yacht Club Thanking them for the use of the club over the last couple of years. Jim CJM will deliver this to the Board of Directors at their next monthly meeting.

A day is to be arranged for radio antenna checks on boats at the Georgian Yacht Club as we have done before.
Probably the second or third weekend in June.

Trillium Foundation sent a letter regarding funding of Charities and Non-profit clubs. Meeting is May 11 at Walkerton. We will have membership in attendance.

Bob XOX will have more info on funding to be looked into.

50/50 was won by Gary IOD \$ 16.00.

Moved to terminate the meeting by Gene IJD. Seconded by Jack DTS. Carried.

May 23rd next meeting date. See everyone there for Elections!

The President's Report



THREE TYPES OF HAMS?

=====

I've been wondering, after about five years as a Ham, I've seen, heard, and met quite a few different Hams and attitudes on pretty much all the different modes and bands, and both on and off the air. I've come to a conclusion of sorts; that there are three very different types of Hams...

1: The "disgruntled" Ham. This type of Ham is easy to find. They are very bitter, for reasons generally unknown or at least not understood by me, and they really do nothing to help out their fellow Amateurs. What they do is complain and whine a lot, get angry, yell scream, post flames to the discussion boards on the Internet and to various e-mail reflectors, cuss at their fellow Amateurs on the air, and are a general pain in the rear. They do not care about Amateur Radio, just themselves their selfishness, and complaining all the time about anything and everything. Kind of depressing when you think about them for too long.

2: The Ham who wants help, and or is "new" to Amateur Radio. Now this Ham could end up like either the first type of Ham, the third type of Ham, or just get out of Amateur Radio out of disgust. (Then we ALL loose.) This type of Ham just needs a helping hand, someone who is willing to help them set up their station, or maybe even upgrade! They tend to find only the "disgruntled" Hams, and end up leaving the Amateur Radio Service. Funny how most Amateurs never even notice this type of Ham, as they slowly fade away.

3: The very rare Ham, the Ham who wants to help out, and does, in every way that he or she can. This can be in the form of joining ARES, becoming a V.E., starting up Ham Radio classes (hey a first day Technician is perfectly qualified to teach!) Setting up a Club station, helping out the Community, or helping the second type of Ham. Keep in mind that this third type of Ham is very rare, and if you find one, don't lose touch. To bad, that this type of Ham seems to be a dying breed. They might not be, if a few more "type two" Hams were helped out by say the "type one Hams", if they (we), could get their (our), act together... Yes, "type three" Hams care about their fellow Hams, Amateur Radio, and it's future. They are not a part of the problem, as the "type one" hams are, but rather, are a part of the solution.

So, which "type" of Ham are you? Personally I try my best to be a "type three" Ham...

Food for thought!

"The time has come for all of us set aside our differences, help out all new Amateurs that are coming into our ranks, and help them to become the type of Amateur that we aspire to be." -- Clinton Herbert, AB7RG

Thanks

Bernie Monderie

CANWARN TRAINING 2000

Attention all CANWARN volunteers. A CANWARN training session has been scheduled for Thursday June 8th at the Bruce Nuclear Power Development Information Center. All CANWARN volunteers and those wishing to know more about CANWARN are invited to attend. (Since I do not have the e-mail address of all amateurs and interested non-amateurs please pass this message along to the others in your respective clubs)

There is no admission fee.

The training will run from approximately 7:30pm to 9:30pm and will be presented by Randy Mawson of Environment Canada. I will be opening the doors at about 7:00pm.

Please ensure that you register as you arrive.

There will be coffee and donuts available at a minimal fee.

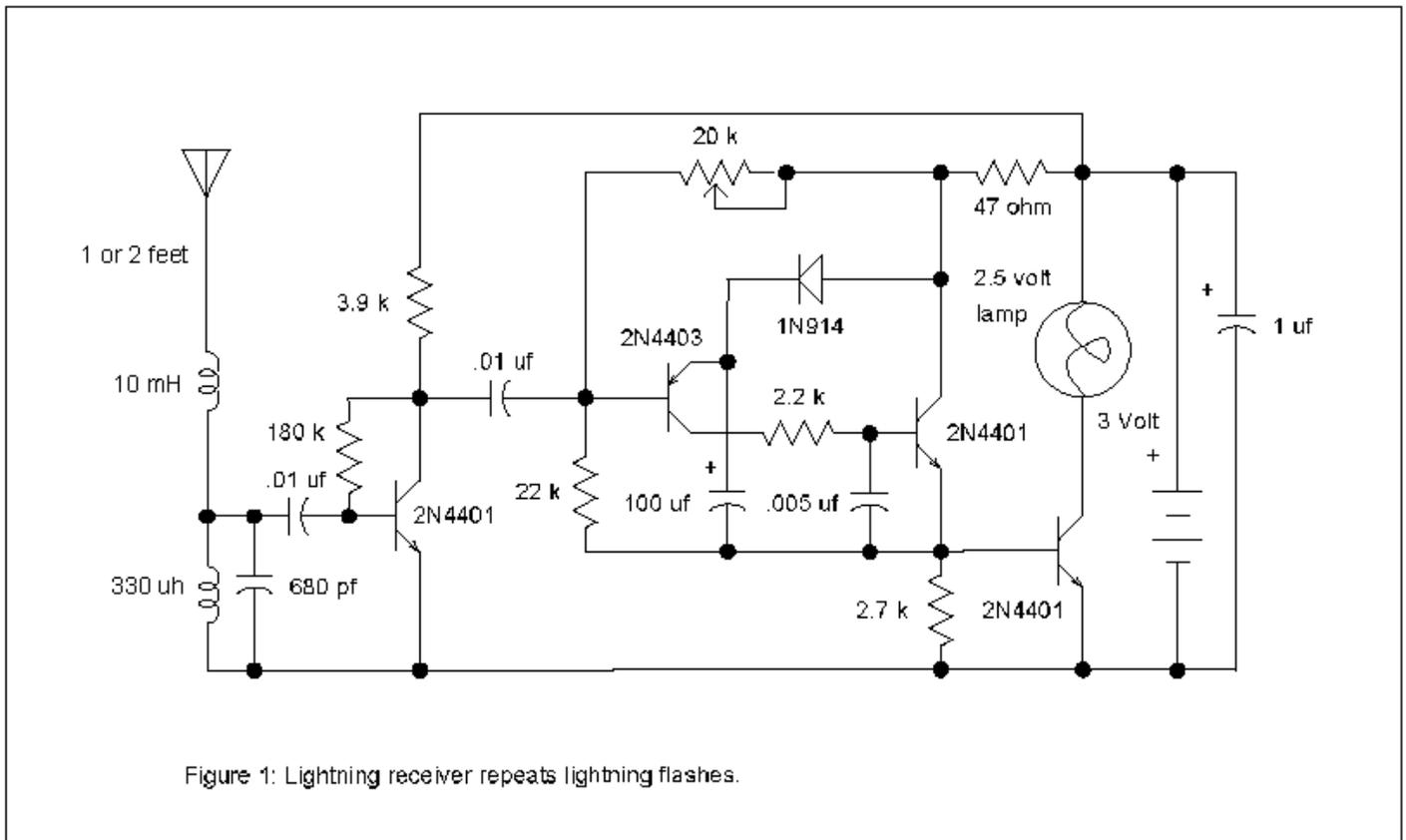
The usual in depth training on the life cycle of a tornado will be covered. In order to ensure that we have enough training material available we must know the number of people in your party. Please contact Ray Lelievre at (519) 396-2051 after 4:00pm (or leave message) or by internet at rlelievr@primeline.net .

The BNPD Information Center is located on Bruce County Rd 20 just west of Highway 21 (Just north of Tiverton). There are signs posted on Highway 21 indicating the turnoff.

Lightning Detectors

Egor! Come quick! A storm approaches!

Here is a VLF receiver tuned to 300 kHz designed to detect the crackle of approaching lightning. A bright lamp flashes in synchrony with the lightning bolts indicating the proximity and intensity of the storm. Figure 1 shows the simple receiver which consists of a tuned amplifier driving a modified flasher circuit. The flasher is biased to not flash until a burst of RF energy, amplified by the first 2N4401, is applied to the base of the 2N4403. The receiver standby current is about 350 microamps which is nothing at all to a couple of D cells, hardly denting the shelf life. Of course, the stormier it gets, the shorter the battery life.



For best effect, mount the lamp in an old-fashioned holder with an extra-large colored glass lens. Or construct your own fixture with a plate of textured colored glass behind a panel painted with black-crackle paint. Watch a few old science fiction movies for other ideas.

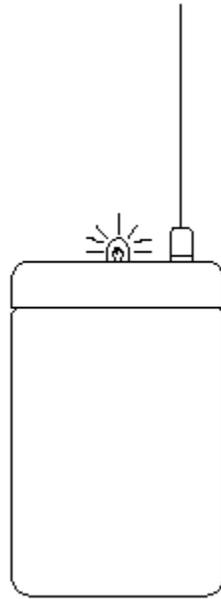
A totally different approach is to mount the circuit in an empty glass jar with the antenna and bulb protruding through the top. (A malted-milk jar has a nice, red plastic lid which is easy to work and looks good.) Use a pin jack for the antenna. The gadget looks quite home-made but fascinating.

Boat owners may wish to replace the lamp with a 3-volt beeper to provide an early warning of approaching bad weather. Choose one of those unbreakable clear plastic jars like the large jars of coffee creamer. A little silicone rubber will seal the antenna hole in the lid of the jar. Use a longer antenna for increased sensitivity since there are few electrical noise sources on the lake.

Tune-up is simple: adjust the potentiometer until the regular flashing just stops. (Use a multi-turn trimmer.) When properly adjusted, the lamp will occasionally flash when large motors or appliances switch on and off and

an approaching storm will give quite a show. Obviously, tune-up is a bit more difficult during stormy weather. Adjust the pot with no antenna if lightning is nearby. Tune an AM radio to the bottom of the dial to monitor the pulses that the lightning detector is receiving.

This lightning detector is not so sensitive that it will flash with every crackle heard on the radio but will only flash when storms are nearby. Increased sensitivity may be achieved by increasing the antenna length. The experienced experimenter may wish to add another gain stage after the first by duplicating the RF amplifier circuitry including capacitor coupling with the addition of a 47 ohm emitter resistor to reduce the gain somewhat. This additional gain can cause stability problems if the layout is poor so novices are advised to use a longer antenna or adjust the sensitivity potentiometer more delicately instead! (When operating properly, the additional gain makes the pot adjustment much less critical.)



Theory of Operation:

Lightning flashes generate a broad spectrum of radio frequencies with especially intense emissions in the VLF band. This receiver is designed to pick up a band near 300kHz which is fairly empty except for lightning static.

These radio "crackles" are picked up by the antenna with the help of the 10 millihenry choke. Short antennas (short compared to the wavelength, that is) behave as though a very tiny capacitor is connected in series and this choke resonates with this capacitor allowing current to flow into the receiver. The 330 uH and 680 pF form a tuned circuit at 300 kHz and the 0.01 uF couples this tank into the base of the first transistor amplifier. The amplified radio signal on the collector is coupled into the base of the second transistor which is part of a lamp flasher circuit. The flasher is biased such that it doesn't flash (by careful adjustment of the pot) until a radio burst pulls the base of the 2N4403 down. Positive feedback causes the flasher to quickly turn full on until the 100 uF capacitor discharges giving a good lamp flash. The circuit quickly resets by charging the 100 uF capacitor through the 1N914.

Transistor substitutions are fine. Most modern small-signal transistors will work well in the circuit including 2N3904 (NPN) and 2N3906 (PNP). Avoid high frequency "RF" transistors since unwanted oscillations may result.

<http://www.techlib.com/electronics/lightning.html>

From The Mailbox

THE RADIO H.F. INTERNET NEWSLETTER

May 2000

<http://www.anarc.org/cidx/radiohf/index.html>

THE BRUCE AMATEUR RADIO CLUB NEWSLETTER

IS NOW POSTED 73 DE JIM COVERLEY VE3OVV

<http://www.brucearc.on.ca>

Field Day 2000 Rules

<http://www.arrl.org/contests/announcements/rules-fd.html>