

# The *LARC* Repeater



A publication of the  
Livonia Amateur Radio Club

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## **PRESIDENT'S CORNER:**

Well, it is 2008 and let's see what this year will bring for our club. We have the SWAP next month, and we have a really good place and the price was sure right. We will need lots of help in setting up, and tearing down and making sure we have plenty of help in different areas. Parking, Kitchen, Front Door Ticket sales. If the members would put in at least an hour except for parking especially if it is really cold outside, they will need someone to break them at least every 15 minutes or so.

We have the wives of some of our members, who have volunteered to work in the kitchen. And we need to help Fred out with tables and vendors, if needed.

But where we will really need the help is set up, and that will be late on Saturday night around midnight.

Then our next outing will be Field Day in June, I sure hope we have a really GREAT one like last year's. We came in Third place for Michigan, let's work on making it First Place this year. Still looking for someone to Chair Field

Day. Then the Hot Dog and Corn Roast in August, no date has been set for that yet. And we are looking for someone to host the Roast. No meetings in July and August, then we will plan the Special Events station in Commemoration of the Sinking of the Edmund Fitzgerald and plan the LARC Night Out and the Christmas Party.

Looks like we have a full calendar of events for this year. Let's make it a really good one. If anyone has any suggestions on doing something, please speak up and let us hear your suggestions.

And we do have a Program for January's meeting.

Membership dues for 2008 are due.

## **TECHNICAL SECTION:**

### **Radio Signal Direction Finding or "Fox Hunting"**

I have never participated in a "Fox Hunt" but imagine it to be great fun as well as learning a new ham radio skill. Our "fox" is not an animal, but a radio signal hidden from the hunters who are the ham radio operators trying to hunt down the location of the hidden signal. Perhaps this is a project that the LARC might be interested in doing?

Why? Well, besides the fun of practicing the skill of finding the "fox" there is a practical reason as well. As federally licensed amateur radio operators we have a responsibility to our community. That could mean helping locate an illegal signal interfering with local police communication. Interference to police communication does happen and we might be able to assist in locating the signal if we knew how to use our radio equipment for direction finding. Other reasons might be to locate an illegal signal interfering with our repeater, or perhaps a club member's station.

There are some very sophisticated devices for radio direction finding (RDF) such as GPS or Doppler devices. These make the hunt very easy, but are expensive and not

practical for our learning purposes. Let's consider some easy ways to narrow down the direction of a two meter signal with your HT. [www.homingin.com](http://www.homingin.com) provides some easy ways to sniff foxes on two meters:

There is no "standard" 2-meter RDF setup for on-foot use by hams in the USA. Every ham who is experienced at it has his or her own idea of what works best in a given situation. Try the various methods described below and see which ones you like most.

If you are a typical ham radio operator, all you need to get started quickly and find foxes successfully is your VHF/UHF handi-talkie (HT) or scanner and some simple accessories. The most elementary way is called the "body fade" or "body shield" technique. Hold your HT tight against your chest and turn around slowly, looking for the direction at which your body blocks the signal most effectively (the signal null). At this point, the signal is coming from behind you. Walk in the direction of the null, taking bearings at regular intervals, and observe the signal strength get stronger. When the signal is so strong that you can't find the null, tune 5 or 10 KHz off frequency to put the signal into the skirts of the receiver's IF passband. If your hand-held is dual-band (144/440 MHz) and you are hunting on two meters, try tuning to the much weaker third harmonic of the signal in the 70 cm band while performing the "body shield." Disconnecting the HT's "rubber duck" antenna will knock down the signal even more. Hearing the signal with antenna off is usually a "You are here!" indicator. Some foxtailers wrap aluminum foil around their HTs to attenuate the signal even more. If you do this, be sure to put insulating tape over the battery charging terminals on the bottom of the set first. You might damage the radio by shorting these terminals with the foil. The "body fade" null, which is rather shallow to begin with, can be filled in by signal reflections (multipath), nearby objects, etc. When using this method, stay away from large buildings, chain-link fences, metal signs, and the like. If you do not get a good null, move to a clearer location and try again.

## **Using Directional Antennas**

You'll get much more accurate bearings, plus more sensitivity when hunting weak signals, if you use an antenna with forward gain and directivity such as a yagi, cubical quad, or phased array. The technique is simple, just point the antenna toward the horizon and turn your body in a 360-degree circle to find the direction in which the signal is strongest, just as if you were turning a rooftop TV antenna for best picture. When signal strength is greatest, the high-gain antenna is "pointing" toward the signal source. You could remove and carry the 4-element yagi or quad that you normally use for mobile T-hunting, but it's rather large and cumbersome. You don't need that much gain and pattern sharpness --- 2 or 3 elements will do nicely.

Well, this is only a teaser to create an interest in Fox Hunting for our club. Maybe we can invite an experienced fox hunter to one of our meetings to give us some further information on how to construct simple antennas that can be home brewed by our club members.

My thanks to [www.homingin.com](http://www.homingin.com) for assistance in writing this article. Their web site makes for interesting reading on this subject.

**Note from Will Sopha:** I have uploaded two recent articles on this subject from QST to the files area of the member's only site.

## **BUDGET BASEMENT:**

I make personalized address labels, simple business cards or QSL cards. There are 30 address labels to a sheet, 10 business cards to a sheet or 4 QSL cards to a sheet. The charge is \$1.00 a sheet (mix or match) with a 3 sheet minimum (\$3.00). I have many graphics to choose from. Contact Doris (KD8DXJ) at 734-941-5043 or [Dorimae492@yahoo.com](mailto:Dorimae492@yahoo.com) for more information.

**SPECIAL EVENTS: LARC SWAP N SHOP FEBRUARY 17, 2008 We  
Need All The Help From The Members, As We Can Get.  
Please come out and make this SWAP a success.**

## **THINGS OF INTEREST:**

### **Meeting Rooms for this year**

January 21, 2008 Room A\*\*\*\*

February 25, 2008 Room B Election of Officers

March 24, 2008 Room A

April 28, 2008 Room A

May 19, 2008 Room A\*\*\*\*

June 23, 2008 Room A

**No Meetings July and August but the Board Does Meet. Hot  
Dog and Corn Roast In August.**

September 22, 2008 Room B

October 27, 2008 Room A

November 24, 2008 Room A

December there is no meeting, that is because of our LARC  
Christmas Party.

**\*\*\*\* The meeting is one week earlier than usual; January is  
early because of the Library's Book Sale. May is earlier,  
because of Memorial Day. Please make a note of these  
meeting rooms.**

### **Web Sites That You Might Find Of Interest:**

Local Hams in your Neighborhood

[http://www.vanityhg.com/maps/enterzip.html!](http://www.vanityhg.com/maps/enterzip.html)

National Weather Service Detroit

[www.orh.noaa.gov/dtx](http://www.orh.noaa.gov/dtx)

Logging Programs

[www.n3fjp.com](http://www.n3fjp.com)

R A D A R

<http://www.qsl.net/wr8dar>

Antennas

<http://www.pi4cc.nl/link/bc.htm>  
[www.cebik.com/radio.html](http://www.cebik.com/radio.html)

Contests And DX

<http://cpcug.org/user/wfeidt/>

International Call Look-Up

[http://www.book.com/cgi-bin/do\\_hamcallexe](http://www.book.com/cgi-bin/do_hamcallexe)

Mega Converter Web Page

<http://www.megaconverter.com/mega2>

Aurora Activity Map

<http://sec.noaa.gov/pmap>

Swap N' Shop

Hazel Park Swap January 20, 2008

Hazel Park High School

23400 Hughes

Hazel Park, MI

8:00 a.m. till 12:00 Noon

Tickets \$5.00