

The Framingham Circuit

Newsletter of the Framingham Amateur Radio Association

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Thursday, Feb 4 This Month's Meeting

John Garrett, WN9T, will be talking about his experiences doing RFI remediation work for commercial broadcasters operating very high power transmitters in close proximity to a residential neighborhood, and how that can help us in RF proofing our homes (or our neighbors' homes) as it relates to amateur transmitters. .

Submitting Material to the Circuit

Material may be submitted for publication by sending it directly to the editor. This can be done by US Mail, or via the Internet (preferred). The deadline for each issue is the **Wednesday**, one week before the monthly meeting.

by mail

Robert Hess, N1UVA
178 Mountain View Ave
Bristol, CT
06010

by internet

circuit@fara.org

President's Message

Hello everyone! We had a nice turnout for our "FARA movie night". Thank you Dave, K1HT, for bringing the DVD on the Desecheo Island DX pedition. Perhaps this same group will be activating the extremely rare Navassa Island entity in the near future. That would really be awesome!

Plans for the FARA flea market on April 11 at Keefe Technical School are going very well. Publicity is getting around, so please talk up the flea market on the repeaters and in your face to face conversations with fellow hams. The flea market is only two months away, and we will be looking for your help in taking money at the admissions table, helping sellers unload their ware, meeting Sumner W1VIV at the shack to load the club table gear, etc. Your help in the past has made a significant difference in making the flea market the annual huge success that it always is. For more information about the flea market, go to www.fara.org/flea.

There are several upcoming non FARA ham events to be aware of. On February 13, the Algonquin ARA will be holding their annual flea market. Go to www.n1cm.org for info. On February 14, the annual Boston Antique Radio Collector's show will be held. Go to www.antiqueradio.com for details.

Are you interested in QRP or learning more about it? On March 13, the Police Amateur Radio Club (PART) will be sponsoring a day long QRP conference at the Westford Inn in Westford, MA. This is being spearheaded by Scott Andersen, NE1RD of the 100 pound DX pedition fame. You may recall Scott's presentation to FARA last year, which, in my opinion, was one of the best we have had. To register and reserve tickets, go to www.masscon.org.

Our meeting this coming Thursday night, Feb. 4 at 7:30 PM at the police station will feature John Garrett, WN9T with a presentation on interference. John will be talking about his experiences doing RFI remediation work for commercial broadcasters operating very high power transmitters in close proximity to a residential neighborhood, and how that can help us in RF proofing our homes (or our neighbors' homes) as it relates to amateur transmitters. John is extremely well qualified and his talk should be quite interesting, especially if you have or have had an RFI problem.

See you on Thursday night!

73, Gordy K1GB

2010 Scholarship Rules

1. Must be a member of FARA.
2. Applications must be turned in or post marked by April 15, 2010.
3. Must be a license radio amateur.
4. Preference will be given to graduating high school seniors.

For applications contact Richard Cosma AA1VI 508 877 8241

Or scholarships@fara.org

Eliminate Annoying Interference in FARA Repeaters with PL Tones, Part 2

Sumner Weisman, W1VIV

In last month's article (January Circuit), I talked about how PL tones work, and how their use can improve your repeater reception by eliminating interference. Since then, some people have said to me, "That was interesting and educational, but how does it help me to program my radio?" Well, that's a problem, because every radio is different. Ideally, when I get a new radio, I like to see if I can program it intuitively without opening the manual. That seldom works these days – radios are simply too complicated and the buttons are nearly all multi-function. The fact that the buttons are also tinier than ever and my eyesight is not what it used to be may have something to do with it as well. My second choice, using the manual, often leaves me quite frustrated. I'm sure that it is no surprise to you that many manuals (perhaps translated from a foreign language to English) are not well written. Of course, you can buy a software program and special cable to program your radio with your computer, but you shouldn't be forced to. What I will attempt to do in this article is to give you some general suggestions that will help you to figure out how to get more out of your manual and to get your radio properly programmed.

There is one common problem that seems to occur in most of my manuals. The chapters are seldom written in the sequence I need. I usually have to insert 4 or 5 bookmarks, and then jump around forward and backward between chapters until the programming is completed. For example, once all the programming is done, you must store it in memory. Why isn't the chapter on memory storage near the end, after the other steps? It may be in some manuals, but it's not in some of mine. So, let's review a logical sequence of programming.

Notes:

These steps are typical; your steps and your nomenclature may vary.

The ARRL Repeater Directory is very handy. It includes all the information you require for each repeater. Additional directories may be found on the Internet.

Offset Frequency: First, for use with a repeater, you must set the offset between the transmit and the receive frequencies. Look for the section on Duplex operation. For example, for two meters the standard frequency offset is 600 KHz, and it varies depending on the band in use. If the radio is only used on one band, you only have to set this once.

Offset Polarity: Next, you have to program the direction of the frequency offset, either positive or negative. This will vary from one repeater to the next, and must be set for each one. For Simplex operation, where the same frequency is used for both transmit and receive, no offset is programmed.

Frequency: Here, you will be setting the receive frequency of your radio to match the repeater transmit frequency. Often you will have a choice of keying it in with the keypad on the microphone, or dialing it in with a knob.

CTCSS Tones: As mentioned before, the repeater you are trying to reach may require a subaudible audio tone superimposed over your normal signal, in order for you to gain access (see 4a below). In addition, it may transmit a subaudible tone that you can take advantage of in order to eliminate interference on the frequency (see 4b below).

4a. Typically, for the first condition above, you must set the radio for "R Tone" or "rt." Then select the correct audio tone frequency.

4b. For the second condition

above, set it for "C Tone" or "ct." Then select the correct audio tone frequency.

Step 4 above will not work unless you remember to do one more thing. You must select "Tone" or Tone Squelch." For 4a above, set "Tone" so that the letter "T" shows on your display. For 4b above, set "Tone Squelch" so that T-SQL is displayed.

Now, the final step; dumping all of the above information that you so tediously programmed into memory, so that you don't have to do it all over again each time. Read the chapter in your manual on memory. You'll discover that you probably have hundreds of channels available, that you can assign any stored information to any channel, and that you can even automatically scan your selection of these memory channels. Study the part on selecting a desired channel, and how to save all of your carefully selected parameters in this channel. You may find that you can even give it an alphanumeric name to make it easier to recognize. Then, do it.

Congratulations, you're done. You can now easily go to that repeater anytime you wish, and simply press your PTT button and talk. All the information will remain in memory until you decide to change it. Of course, you probably will now like to do the same for all of the other nearby repeaters. Each will have its own memory channel, and can be easily selected at any time.

One note of clarification: In Part 1 of this article, I referred to setting the manual squelch level for maximum sensitivity. This can only be done in the "T" mode. When in "T-SQL," the manual control is inactive, and the radio is silent until the correct signal is received from the repeater.

FARA Sunday Night Net Control Schedule

FARA Club Table Needs Your Old Radio Gear

By Sumner, W1VIV

One of the ways that your radio club makes operating expenses is the Club Table at the annual FARA Flea Market. We sell donated ham radio equipment to attendees. The date is April 11th -- not that far away! Possibly due to the economy, donations are down this year. If you have any old radio equipment, accessories, books or other items of interest, please consider donating them to FARA.

Please contact Sumner Weisman, W1VIV, at w1viv@rcn.com or at 508-877-1565.

W1NXC	2/7	3/28
K1GB	2/14	4/4
WA1HAM	2/21	4/11
KB1NIV	2/28	4/18
W1VIV	3/7	3/21
W1EQW	3/14	

FARA Horizons

- Feb: John Garrett W9NT, presentation on Interference
- Feb 13: Algonquin ARA Flea Market, Marlborough
- Feb 14: Greater Boston Antique Radio Collector's Show, Westford, MA
- March: Mike Raisbeck K1TWF, ARRL Division Vice Director
- March 13: MA QRP Convention, Westford, MA
- March 20-21: License in a Weekend
- April: Greg Algieri WA1JXR, transmission Lines
- April 11: FARA Flea Market
- May: Pizza Party
- May 1-2: New England QSO Party
- June : Election of Officers; Lou Harris N1UEC speaker field day

This month's Circuit sponsored by:

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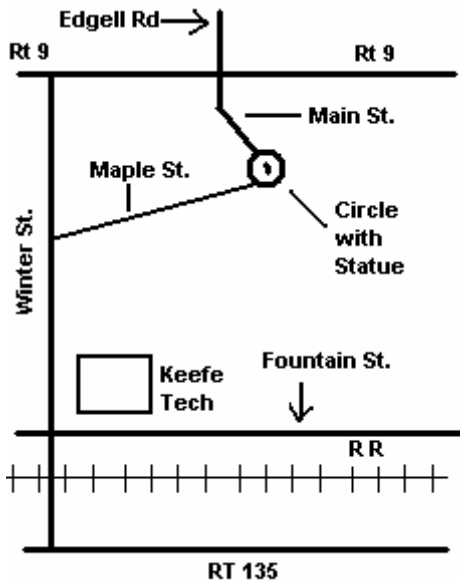
FRAMINGHAM FLEA

Sunday, April 11, 2010

Hours 9AM to 1 PM

Door Prizes - Grand Prize: NEW 2M HT!

Buyers \$5 - Under 12 free with adult!



Directions

KEEFE TECH SCHOOL (keefetech.org)

750 WINTER ST Framingham, MA

Take the FRAMINGHAM CENTRE/STATE COLLEGE exit off Rt.9, then SOUTH on MAIN St.(0.2 mile) to the circle with the statue.Turn right on Maple St.(first exit from circle).Follow Maple St.(0.7 mile) to the end and turn left onto Winter St. School parking lot is 1.2 miles on the left. Keefe is also accessible from Rt 135. Take the bridge over the R R tracks at Winter St. Cross Fountain St. and continue on Winter St. The School Parking lot is on the right (0.1 mile).

TALK-IN 147.15

For more info, check our web site: fara.org/flea

HAM LICENSE EXAMS

Exam Info call: Jim 508-435-6487

<p>Sellers Info Bev 508-626-2012 (Before 9:00 pm) 6 foot table + 1 admission \$20 in advance, \$25 at the door Setup - 7:30 AM Free coffee and donut AC power available Load/unload assistance available</p>	<p>For advance table reservations, send this form and a check to: FARA, POB 3005, Framingham, MA 01705 Enclosed is a check for \$_____, for _____six foot tables at the FARA FLEA MARKET. Name _____ Call Sign _____ Address _____ City _____ State _____ Zip _____ Phone(_____) _____ Email _____ <p style="text-align: center;">REMAINING SPACES ARE \$25 AT THE DOOR</p> </p>
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Club Information 2010

President	Gordy Bello	K1GB	781-891-5572	president@fara.org
Vice President	Leo Cantin	WA1HAM	508-877-3319	vp@fara.org
Secretary	Steve Hewlett	KB1NIV		secretary@fara.org
Treasurer	Tom Malloy	N1FTB	508-655-0392	treasurer@fara.org
Director	Bev Lees	N1LOO	508-626-2012	director@fara.org
Director of Training	Ed Weiss	W1NXC	508-881-2301	
Director of Testing	Jim Weckback	W1EQW	508-435-6487	testing@fara.org
Publicity Coordinators	Joe Weisse	W1HAI	508-654-9999	w1hai@arrl.net
Emergency Coordinator	Alex Sayegh	KB1JYD		
Activities Director	Gordy Bello	K1GB	781-891-5572	vp@fara.org
Scholarship Comm. Ch.	Dick Cosma	AA1VI	508-877-8241	scholarships@fara.org
Newsletter Editor	Robert Hess	N1UVA	860-227-9188	circuit@fara.org
Webmaster	Sharon Gartenberg	KC1YR	508-877-6692	webmaster@fara.org

Meeting: Club meetings are normally held on the 1st Thursday of each month at 7:30PM in the basement of the Danforth Museum, on Lexington St.

Club Nets: FARA Net: Sunday, 7:30PM, 147.75/147.15 - social/chat, ARES preparedness

Club Station: W1FY, the club station and shack, is open Saturday mornings from 8:30-12:00. Call the club number, 508-879-8097 to confirm.

Club Web Site: <http://www.fara.org>