

The Framingham Circuit

Newsletter of the Framingham Amateur Radio Association

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Thursday, Jan 7 This Month's Meeting

"FARA Movie Night" will feature a DVD of the K5D Dexpedition to Desescheo Island.

Don't miss what should be a very interesting video at 7:30 at the Framingham Police Station.

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

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President's Message

Happy New Year and welcome to a new decade! I hope you all had a joyous holiday season and are looking forward to another active year both inside and outside of hamming. We had a mediocre turn out at our last meeting with Terry Stader, KA8SCP. Terry's presentation about EMCOMM was very interesting, so if you did not attend, you did miss something special. Framingham Police Chief Steven Trask was in attendance as well to learn about what type of service we can provide the town. If you are at all interested in the FARA EMCOMM project, please get in touch with our Emergency Coordinator Alex, KB1JYD.

Dues were due on January 1. If you have not paid your dues, please see our treasurer Tom, N1FTB at the meeting or mail them to the FARA P.O. Box. Tom informs me that dues have been very slow in coming, so please make it your New Year's resolution to pay your dues. At \$15 (\$10 for seniors) FARA dues are a real bargain compared to other clubs which charge \$25 to \$30. Even if you're the only dues paying member, your immediate family members are also considered members of FARA! Now that's a great deal!

Although it is January and the winter weather is upon us, the FARA flea market on April 11 is only about 90 days away! The flea market does have a way of sneaking up on us, and I am looking for your help once again in making this a successful event. Bev, N1LOO, is our flea market chairperson and always does a great job! She is looking for someone to stay with her until the very end when everyone has packed up. This does not mean you have to be there from 6 AM onwards, but if you can get there by noon and stay until the end that would help Bev immensely! Please consider being a good friend and helping Bev as she has done so much for FARA over the years.

Our meeting on Thursday, January 7th at the Police Station at 7:30 PM will be "FARA movie night". We will be showing a DVD of the recent K5D DXpedition to Desescheo Island. You can get a glimpse of the operation by going to www.kp5.us.

73, Gordy K1GB

Eliminate Annoying Interference in FARA Repeaters with PL Tones

Sumner Weisman, W1VIV

Let's briefly review what PL tones are, and why our repeaters use them. Not so many years ago, there were no such things as audio tones on repeaters. As more and more repeaters were built, especially in major metropolitan areas, interference between them increased rapidly. That caused major headaches to operators, and serious potential problems in emergency situations. To solve the problem, CTCSS tones were developed (Continuous Tone-Coded Squelch System.) Some people call it Tone Squelch, or PL Tones. (PL is a Motorola term for Private Line.)

How does it work? A low frequency audio tone is superimposed on the FM transmitted output of your radio. If the repeater is programmed to receive that exact tone frequency, the received signal from your radio will key the repeater. Even if you are transmitting on the correct FM frequency, without the tone on your signal, you can't get into the repeater. More and more modern repeaters are using a PL tone on the receive side to block other signals that may interfere. In addition, some repeaters also include a tone on the transmitted output signal. In this case, you will hear the repeater on your radio even if you have not programmed it for the correct PL tone, so it's not required that you do. However, programming in this PL tone can eliminate much annoying interference to your radio. If you do, an interfering

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signal at the repeater output frequency will not break the squelch on your radio, and you simply won't hear it. It's a good idea to go to the extra trouble, and only takes a few seconds if you're programming the radio anyway.

As you may know, the Framingham 2 meter repeater (147.150 MHz) has never used a PL tone on the receive side, even though most other local repeaters do. Some day, we may have to add it in order to eliminate interference from other sources. Many FARA members do not know that a PL tone has recently been added to the transmit side. The frequency is 127.3 Hz. As mentioned above, you can operate the repeater without programming your radio for this tone, and most people are probably not using it. But if you listen to the repeater a lot, you will have noticed loud bursts of static on 147.150. It is annoying, and loud enough that it makes some stations difficult or impossible to hear. After putting up with it for a long time, I recently reprogrammed my radios for this PL. The interference is completely gone! I can now set the squelch level for maximum sensitivity, and never have to touch it. It's a big improvement, and I recommend it.

The Framingham 70 cm repeater (448.025 MHz) uses two PL tones, 88.5 HZ on the receive side and 100 Hz on the transmit side. Again, you have to put in the 88.5

Hz in order to get into the repeater, but you don't have to program the 100 Hz. Your radio will work fine without it. But similar to 2 meters, I found that I had lots of interference, especially when driving around downtown Framingham. Programming my radios to take advantage of the transmitted PL tone completely eliminated the interference, and it sure makes hamming more enjoyable. Try it – you'll like it!

FARA Sunday Night Net Control Schedule 2010


K1GB	1/10
WA1HAM	1/17
KB1NIV	1/24

FARA Horizons

- Jan: FARA movie night, DVD of K5D Desescheo Island DXpedition
- Feb: John Garrett W9NT, presentation on Interference
- March: Mike Raisbeck K1TWF, ARRL Division Vice Director
- 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 TBD: Election of Officers

This month's Circuit sponsored by:

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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>