The Framingham Circuit

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President's Message

Still no snow!! What a winter!!! Saturday the 22nd and it was 65 degrees!!
This month has been eventful. Pete, KA1AXY, finished the kit building class and at last count everyone's Morse Code Computer worked!! It was great fun and I am looking forward to the next project. Phil, N1MQG, continues to work very hard on the library. The last I heard he has a full set of QST's back to 1950, with only a half a dozen holes. Not bad! Phil is still looking for more magazines, QST, CQ, etc., as he has other plans for some to the duplicates. If you can help give us a call at the shack. Thanks.
In preparation for the ARRL DX contest, we moved the vertical antenna to a new and improved location on the roof. It is now at the same height as the beam. There are still some problems but hopefully they will be corrected by contest time. We still plan some more changes in the shack but it will be nothing earth shaking.
We continue to look forward to the flea market on April 6, 1997. If anyone is planning to go to any other flea markets between now and then, please think about handing out some fliers. The more people that know about it the better. If you would like to help out at the flea market give me a call or let me know at the next meeting. There will be a sign up sheet also. Thanks.
Don't forget about license in a weekend to be held March 21 -23, 1997. If you know of anyone that maybe interested in getting licensed please pass the word to them about this opportunely. This has been a great program in the past and we plan on our successes to continue.
Have a great month and look forward to seeing you at one of the upcoming events.

Thursday, March 6

This Month's Meeting

Marjie, KA1HIA

Deputy Fire Chief Ordway will be our guest this month. Besides being in the Fire Department, he is also head of the Framingham Office of Emergency Preparedness. He will address the club in that role.

Submitting Material to the Circuit

Material may be submitted for publication by sending it directly to the editor. This can be done by phone, by US Mail, or via the Internet (preferred). The deadline for each issue is the Saturday following the FARA board meeting.

License-In-a-Weekend

Ed Weiss, W1NXC

Just a reminder that the next License-In-a-Weekend will start on Friday, March 21. Now is a good time to start talking it up to your friends who might have always wanted to become a ham!

Another Viewpoint

Mike Yetsko, N1DVJ

I can understand wanting to say "HI" to other hams via your car horn. I've personally gotten behind a known HAM on the highway and flashed CQ52 with my lights, alas with no success. I even had an unmarked cruiser on the MASS Pike do it to me once! (He then told me "gotcha, slow down" when we chatted direct!)
But I think there is a real problem when your target vehicle may be unknown, or there are other vehicles around. There are enough short tempers on congested highways and town roads that using the horn in this manner may not be a very good idea. Even if you know (or suspect) the other operator is a HAM, if he

Free Home Page and E-Mail

Rick Commo, K1LOG

This is a posting from the newsgroup **rec.radio.amateur.antennas**. I cannot vouch for its validity but felt that it should be included for the sake of those who might be interested. If anyone does investigate it please communicate your findings to us.

Subject: Free to all Radio Amateurs
From: Al & Denise Waller <al@qsl.net>
Newsgroups:
rec.radio.amateur.antenna

Dear Fellow Amateur,
An Internet Web Server devoted entirely to Amateur Radio and associated hobbies. If you would like a home page of your own or for your Radio Club it's absolutely FREE and will always be FREE.
This is my private computer system with the Server on a T1 hi-speed network. It's a hobby for me just as Ham Radio is and I'm glad to share my system with everyone.
This is what you'll get:
E-mail account that you can use locally or have forwarded to your regular account

Example: K3TKJ@qsl.net
YOURCALL@qsl.net
FTP privileges
Telnet privilege
Your own personal Web site
Try these working pages now.
http://www.qsl.net
http://www.qsl.net/k3tkj

Here are the rules:
1) NO COMMERCIAL USE!
2) I'm not going to write the page for you.
3) You have an Amateur License.

That's it.... If you want to try it signup at http://www.qsl.net Need more info? E-mail: k3tkj@qsl.net

73,
Al Waller K3TKJ
Laurel, Delaware

to help with the planning should attend this meeting.

Noisy QTH?

Rick Commo, K1LOG

Is your QTH plagued by static or other manmade noise? There may be a cure available.
Over the years there have been articles written on "noise nulling" boxes (also called null "steerers"). These are devices that go between your antenna and your receiver. Also connected to the box is another antenna, sometimes referred to as the *sense* antenna. The sense antennas need only be a 20 to 30 foot piece of wire mounted somewhere between 1/8 to 1/2 wavelength from your main antenna.
The principle behind noise nulling is that both your main antenna and the sense antenna "hear" the same signals and noise. But since the antennas are separated physically there is a phase difference between the signals and noise on the two since a particular signal, or noise from a particular source, arrives at each antenna at different points in time.
How does that help us. Well let's take the signal from the sense antenna and feed it through a variable gain amplifier. Then let's combine it with the signal from the main antenna through a phasing network. Suddenly we can do something really neat! But let's explain it with an example.
Suppose you have an arc welding shop a mile or so from your QTH. The noise from the welders will first hit whichever antenna is located closer to the source, a little time later it will hit the other antenna. It doesn't matter which one.
Now inside the box let's adjust the gain of the amplifier so that the noise from the sense antenna is the same magnitude as the noise from the main antenna. So that the sense amplifier went through? Let's now adjust it so that the phase of the noise is 180 degrees relative to the signal from the main antenna. Finally, let's combine them. Bingo - the noise practically disappears!
Let's not get bogged down in math beyond pointing out that the sum of +1 and -1 is zero. The "1" represents the magnitude of the signals (or noise) and the "+" and "-" implies that they are 180 degrees out of phase - or opposite in polarity. That's what we did with the *gain* and *phase* controls - we created a "noise" (from the sense antenna) that was equal and opposite to the noise that was bothering us. When we add them together the result was essentially zero.
Of course noise nulling has it's down side as well. The gain and phasing that we apply to the noise we don't want also gets applied to every signal coming in through the sense antenna.
What will happen if the signal we want is coming in from the same direction as the noise source?
You guessed it. The same "Bingo! The noise is almost gone" will apply to that signal as well! What's a poor ham to do? The simplest would be to put another sense antenna up on the opposite side of your main antenna. By switching between one of the two sense antennas you would be able to get rid of noise in a majority of cases. Oh, did I mention that an unwanted signal is noise! Yes, if you live close to a big gun you could use one of these gadgets to null out that signal as well.
But do they work in practice as well as in theory? Good question! What drove me to look into this was the idea of nulling out the European broadcasters on 40M during Field Day, and the fact that I do have a very noisy QTH. The idea sort of lay

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Time Marches along towards that day,
Third weekend, the month after May!
Yup... Field Day plans are afoot,
Now's not the time to stay put!
Many hands will make work seem like play!

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the ham radio notes file and there was an entry from another ham at work. Here is his text

-< INFO on JPS ANC-4 >-
I just purchased one because I was getting about 7+ s-units of static from an upstairs 35" TV's flyback and this unit brought it down to nothing. I like it!!,
Jon n1jdt

In his article in the July, 1994 QST, "The Null Steerer Revisited", W7XC pointed out that his homebrew noise nuller could put a 50dB null on a KW CW signal that was overloading his receiver.
So if you are having this kind of problem (I am) you might want to read these articles and look into building or buying a *null steerer*. It may just make your hamming a whole lot less stressful!

ARRL Mulls New License Structure

[*Reprinted with permission from Ham Radio Online magazine, available for free on the Internet at http://www.hamradio-online.com - there have been minor edits to make it fit - ed.*]

ARRL members are being invited to add their ideas, comments and recommendations to those of the ARRL WRC-99 Planning Committee, which has suggested sweeping--and potentially controversial--changes to the Amateur Radio licensing structure in the US. On the table for open discussion and debate are proposals that include:
• elimination of the Novice license
• creation of a new Intermediate license to replace the Technician Plus
• greater hf privileges for intermediate licensees than for the existing technician plus, including phone on 160, 75 and 15 meters
• a 10-wpm General CW test (with more stringent testing standards for

committee concluded that the Novice license is no longer useful. Although the committee would end the Novice license, its plan provides current Novices with an easy means to upgrade (via an open-book test) to the new Intermediate class license, which would replace the current Technician Plus. All present Tech Plus licensees would become Intermediate licensees. The Basic license would supplant the Technician license--now the hobby's most-popular entry-level ticket--with no changes in privileges. In addition, the committee's plan would phase out the current Novice and Tech Plus bands on 80, 40 and 15 meters, and replace them with new Intermediate-class allocations. The committee's consensus plan for Intermediate-class licensees calls for new CW bands on 80, 40 and 15 meters starting 25 kHz up from the lower band edge, digital and phone-band privileges on 75 and 15 meters and a 50-kHz phone or CW segment at the top end of 160 meters, plus expanded Novice and Tech Plus CW and phone allocations on 10 meters.
According to the proposal, Intermediate CW bands would be 3525 to 3700 kHz, 7025 to 7050 kHz, 21025 to 21150 kHz and 28050 to 28300 kHz. Digital operation was suggested for 3600 to 3625, 21100 to 21125 and 28100 to 28189 kHz. Phone privileges would include 1950 to 2000, 3900 to 4000, 21350 to 21450, SSB from 28300 to 28500 and FM from 29500 to 29700 kHz. Transmitter power for Intermediate-class licensees would be limited to 200 W PEP output ...
General-class and higher amateurs also would benefit from the plan, if it's adopted according to the committee's outlines. General-class hams would get additional phone privileges 3800 to 3850, 7200 to 7225, and 21250 to 21300 kHz; Advanced-class hams would add 3725 to 3775, 7125 to 7150 and 21175 to 21225 kHz; Extra-class hams would also have 3700 to 3750, 7125 to 7150 and 21150 to 21200 kHz.
With the exception of 40 meters, where Novice and Tech Plus licensees already have privileges, the committee suggested no changes on the hobby's narrowest and most crowded bands--including 20 meters and the narrow WARC bands at 30, 17 and 12 meters.
The Intermediate CW test would be 5 words per minute..., but the committee proposed that the General class CW requirement be set at 10 wpm. There still would be no additional CW exam for the Advanced ticket, nor would there be any change in the 20-wpm requirement for the Extra. Exams for all classes would include a return to a sending test and the requirement for one minute of solid copy during a five-minute test--instead of the current method that tests on the content of the CW text.
Right now, these major changes are only in the talking stage. "Let us be very clear about this," said ARRL Executive Vice President David Sumner, K1ZZ, who characterized the committee's proposals as a starting point for discussion, not a done deal. "The changes are not ARRL policy; nothing has been proposed to, or by, the FCC, and the ARRL Board is committed to making no decision before its July 1997 meeting." Sumner said there is no timetable to complete the process. Only after there is an opportunity for in-depth consideration and discussion by the membership will the ARRL Board consider taking the next step--to approach the FCC with a rulemaking proposal--a process that automatically invites additional comments and suggestions.
Between the time they receive March QST and the end of May, members are asked to voice their opinions on the committee's suggestions to their directors, whose postal and e-mail addresses