



# ♦ The Minuteman ♦

Volume 29 Issue 4

March 1999



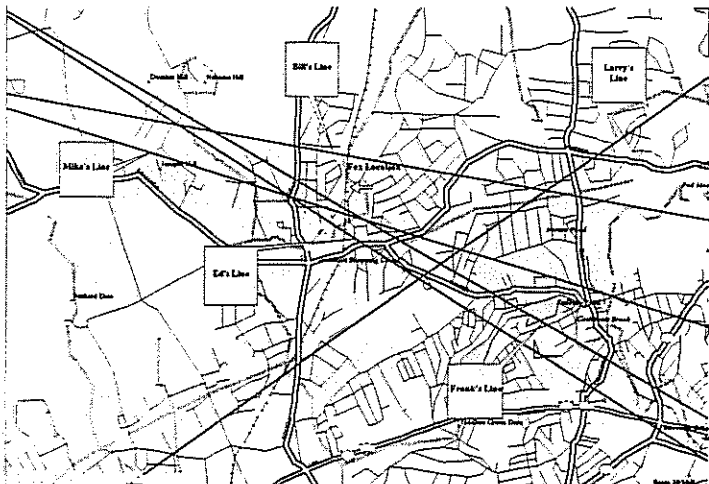
## President's Corner

It looks like the new structure for ham licensing is going to be adopted. On page 8 I put some extracts of the NPRM that covers the change. I think the basic idea makes sense, and even if the code requirements were eliminated altogether it wouldn't bother me too much...just a little. So long as they leave the Extra CW portions of the bands alone, I'll be happy.

One of the pet theories of the old guard is that somehow learning CW is a filter that keeps fools and malfearsors from joining the ranks of ham radio. Nothing could be further from the truth. If you doubt me, just scan across 75 meters some evening, or spend some time listening to what goes on at 14.300. All the idiots you will hear there passed code tests.

The real answer is that ham radio is a community...just like the one you live in. It has its standup citizens, deadbeats, fools, idiots and anal orifi. In our free society, it has to be that way. When someone is doing something that merely offends, we have to tune it out. But when someone is breaking the law, we should take notice and action. That is what the section in the NPRM dealing with the Amateur Auxiliary addresses...the lack of effective enforcement of the laws that govern radio communications. This is an area that we should all think about; it is a problem that cries for involvement from at least a not insignificant number of us.

By the way...our little Foxhunting group, sort of having fun while maintaining preparedness for finding malicious interference, has gotten pretty good. The first step in one of our hunts is fixed stations taking bearing with directional antennas. Take a look at the little map...look at how the lines all cross right on top of the fox!



He was about in the middle of the triangle. And the same thing happened the following week. Fixed station lines all passed within *half a mile* of the fox. Not bad, Eh?

## Save That Old Equipment

Jon Titus, KZ1G

I have enjoyed working RTTY for many years, and used a rudimentary setup based on a Commodore VIC-20 computer (circa late 70s) and an old AEA CP-1 "Computer Patch" as my terminal unit (TU). A small Sears black-and-white TV provided a display for the VIC-20. This arrangement of equipment worked fine until the VIC-20 developed an intermittent that resisted many attempts to find. I still wanted to operate RTTY, so I searched for replacement equipment. At first I looked for RTTY software that would run on a 386 PC and control the CP-1. But a Web search turned up only one reference to a CP-1, which was for sale.

Finally I bought a Baycom modem because it was inexpensive and it attached directly to a serial port on my PC. The Baycom modem came with HamComm software which can handle a number of digital modes. When used with the Baycom modem, the HamComm software directly generates the tones for the transceiver. And the software also demodulates the tones by counting times between zero-crossings on the audio signal from the receiver. Unfortunately, the performance of the Baycom unit and the HamComm software was a lot less than I expected for RTTY operation. I liked my old CP-1 a lot better, but I still didn't have any software for it. (The Baycom modem and software work fine for VHF packet.)

Careful reading of the HamComm manual led me to believe that the software could run in an "external" mode and control an

*(Continued on page 3)*

## MARCH MEMBERSHIP MEETING

WEDNESDAY, MAR 17, 1999 - 1930 HRS  
CAMPION CENTER, WESTON MA  
PROGRAM:

**TO BE ANNOUNCED**

Raffle  
Other Stuff

## 800 MHz Trunking Filter Project

Bryan Cerqua, W1BRI

Having just bought a Radio Shack PRO 2066 Trunk Tracking scanner I discovered that living next to a commercial radio site with many 930 MHz paging and 850 MHz cellular phone data channel transmitters was overloading my new scanner. This problem was not new to me since I've noticed even on my Regency MX7000 scanner that when tuning in any 800 MHz frequencies that most of time all I heard was paging type inter-modulation noise. This did not bother me much since at that time I was not really interested in 800 MHz scanning.

Now with this new trunking scanner I wanted to listen to the State Police without having desense make the scanner loose lock on the trunking data channel. Using a Spectrum Analyzer I measured RF levels of -30 dbm from the 900 MHz paging transmitters - way too much signal for the wimpy front end of most cheap scanners. This got me thinking about building a 850 MHz bandpass filter. The problem is that at these high frequencies it is difficult to find good quality components that can be used.

I happened to be talking to Andy (N1BHI) one morning on the way to work and he mentioned that he had a Johnson mobile rig that might be useful; Mike, KD1OA gave it to the MMRA - it had been stolen and never claimed. The MPD was cleaning out its storage and was going to throw the radio out, so Mike grabbed it thinking it might be of use to us. We didn't know for sure what commercial band it was intended for; we thought it possible that it might be UHF and useable as a link radio.

When I got this radio from Andy and played with it on the bench I quickly realized that it was an 800 MHz mobile and replaced the covers and set it aside. While laying in bed listening to the noise on my new scanner I started thinking about my 850 MHz filter project...an idea hit me. I had the filter the that I needed inside the 800 MHz Johnson radio that I got from Andy! I got out of bed and removed the covers again to look at the front end Helical filter strip. What I saw was an 8 stage helical filter, but it was an integral part of the main circuit board. I was hoping for a filter block that could be easily removed like I've seen in some other radios. The next day I spoke with Andy again and asked him if I could use the radio for this filter project. Andy had no problem with giving me the radio since it was not useful for the 440 MHz band.

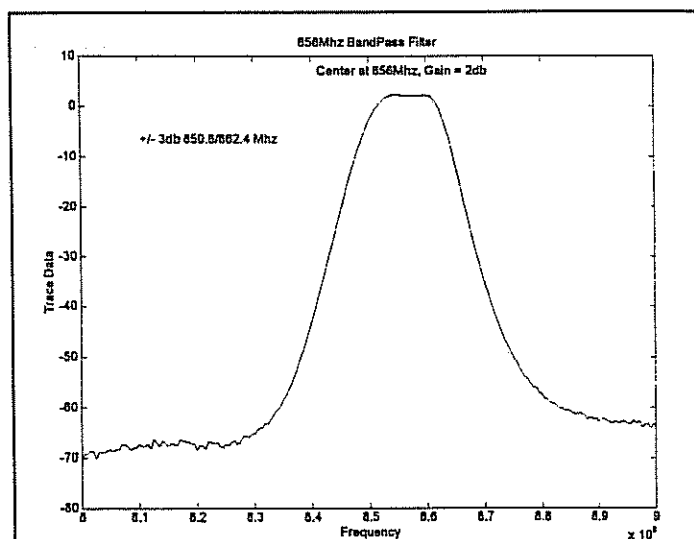
That night I completely disassembled the radio to see if I could cut the filter section away from the main circuit board. It looked possible so I clamped the radio in the vise and used a

hacksaw to carefully cut around the filter section. All that was left of the remaining radio was some small pieces...God forbid that Andy should want it back.

On the removed filter section of the main circuit board I noticed two small transistors that were used as gain stages to make up for the loss of the helical resonator stages. This was another great freebie that I could wire up to a variable voltage source for controlling the amount of gain. I mounted the filter section in a small bud box with a few BNC connectors, gain control knob, power switch and LED. The gain control uses a POT across the 12V B+ with the arm of the POT buffered by an emitter follower transistor that drives the filter transistor gain stages.

As an added feature the power LED was wired to the variable voltage source which changes brightness as the amount of gain is changed. I took the filter to work and tuned it up on the Network Analyzer; the 3 dB points were set at 850.8 and 862.4 MHz. The bandpass gain with gain control at maximum is +2

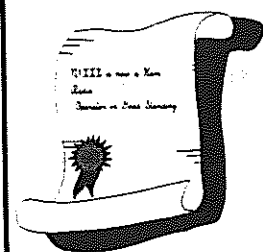
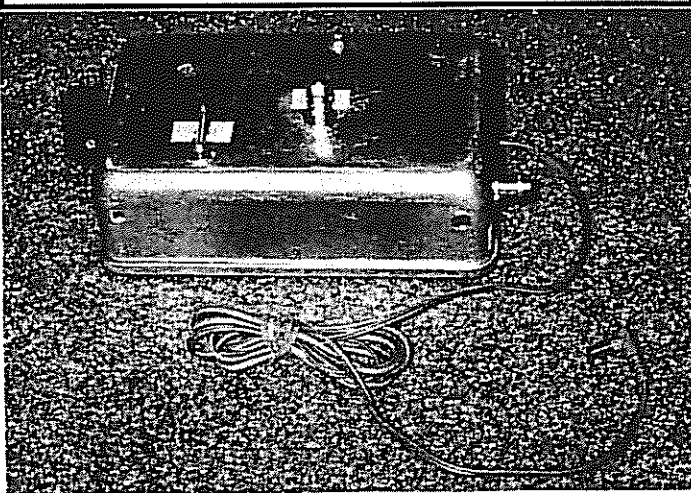
(Continued on page 3)



Above: Measured filter response.

Below: Bryan's filter, packaged in a minibox.

W1BRI Photo



## MMRA VE Sessions

See Dates, page 9.

Marlboro Public Library, 9AM

Contact: Bill Wade, K1IJZ

617-891-9079 Evenings 6 to 10 PM,

Weekends 8 AM to 10 PM.

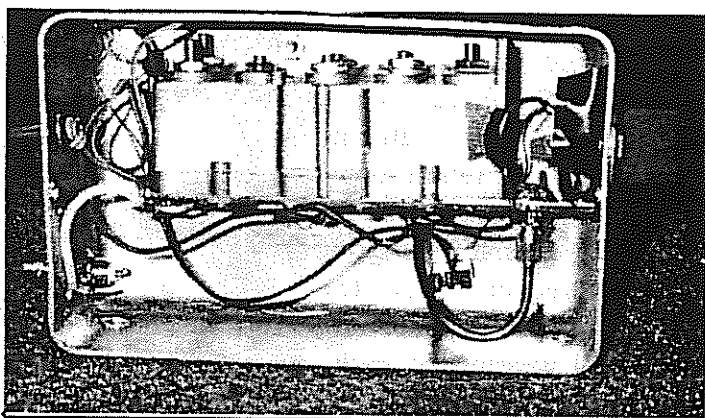
Accredited - ARRL VE Program

## 800 MHz Filter....

(Continued from page 2)

dB and about -45 dB with the gain control at the minimum setting. The corner frequencies are set to pass the 800 MHz trunking frequencies and attenuate the cellular and paging frequencies by about 70 dB.

Once home I tried the filter on my new scanner and sure enough my problems were gone. There was absolutely no sign of any inter-modulation distortion and I was even hearing the weak trunking frequencies for the MDC Police in the Boston area. The gain control allows attenuation of the strong inband



Above: The innards...the actual filter was hacked out of the receiver board of a Johnson 800 MHz trunking radio with a hacksaw.

W1BRI Photo

frequencies that can be achieved when using a gain type 800 MHz antenna.

I'm very satisfied with the results of this project and I'm now building a 12 element beam using a program called YAGI-MAX311 on my PC. Since I'm still optimizing this beam I'll spare you all the details until possibly the next newsletter. Once again I'm enjoying listening to the State Police and trying to memorize all the talk group ID codes, however I do miss the 42 MHz VHF low band days. I've collected much information from the web on the State Police system and some articles on how trunking systems work. I would be glad to make copies for those that are interested.

"You never can have too many radios"

## Top signs that you may need an Elmer..

By Jeffrey S. King, N1DJS, jeff.king@cbis.com  
Reprinted from the Ham Radio Online Web Site

An Elmer is the guy you go to, to ask questions about topics in Ham Radio that you don't understand. In that vein, you know it's time for you to find an Elmer if...

- Your friend tells you he has a new two meter radio and you figure one of the meters must be for swr and the other for power out.
- You hear a conversation on the low bands about CW and you think they're referring to the cold war.

## Save That Old Equipment

(Continued from page 1)

external modem through an RS-232C serial port. Instead of controlling a Baycom modem, I could connect my beloved CP-1 right to the serial port! Using the HamComm software, the serial port would accept digital codes from the CP-1 and send digital codes to the CP-1. The serial port would also control a push-to-talk signal. This approach sounded good.

But the CP-1 provides TTL I/O signals and the serial port provides RS-232C signals. Can the twain meet? Maxim (Sunnyvale, CA) manufactures some nice RS-232C-to-TTL converter chips that require only a single +5V supply. So I decided to breadboard a simple converter circuit to see if I could get my PC running HamComm to work with my CP-1 TU. The schematic diagram in Figure 1 shows the circuit. The breadboard worked fine, so I wired the circuit on a small piece of prototype PCB material and will build it in to the CP-1 one of these weekends.

The moral of the story is that sometimes old equipment works as well if not better than new gear. And it may be easier, and less expensive than you think to get the old equipment working again. My circuit cost about \$10, probably a tenth the cost of a new TU.

*Editor's Note: We did not get the schematic, but we're sure that Jon would be happy to provide it to anyone who asks. Here are his email addresses:*

jontitus@cahners.com (work)  
harrowsmith@mediaone.net (home)

- You hear someone sign this is N8XXX mobile 4 and you think it's because he has three other radios
- You hear that someone won a 40 meter radio at a hamfest and you wonder how they're going to get something that large in their house.
- You build a Morse code key out of Plexiglas and can't figure out why it won't key your radio.
- You think the difference between short wave and long wave is the speed at which you move your wrist back and forth.
- You're thinking about joining your other ham friends in the local ATV group because you own a four wheel drive vehicle that will go just about anywhere.
- You won't use a repeater because you've heard that using a repeater could be dangerous. You've heard an alligator could get you.
- You think a collinear antenna can only be used with two amplifiers.
- You think fm is the modulation type that came after em, dm, cm, bm and am.
- You wouldn't mind getting into packet radio but no matter how much you practice you can't get the hang of sending those beeps and braps with your keyer.
- You wonder what sound a short wave makes and why anyone would want to listen to one.
- You think the repeater owner would be a lot happier if instead of talking about his cavities he just went to the dentist and got them filled.
- You think a CW ID is the number the army gave you on your dog tags during the cold war.

*Editor's Note: Gee...now I know why I could never get packet to work.*

**Items of Interest....From the ARRL Letter**

**FCC SHUTS DOWN TROUBLESOME  
BAY AREA REPEATER**

The FCC has shut down for 120 days the K7IJ repeater facility on Grizzly Peak in the San Francisco Bay area and told the licensee his ham ticket could be in jeopardy. The FCC took the action by modifying K7IJ's license to prohibit repeater operation starting midnight February 28, 1999. The repeater operates on 145.29, 223.78, 440.175, and 441.175 MHz. The FCC also set aside recent license grants of four individuals accused of unlicensed operation on the repeater prior to obtaining their amateur tickets or of other behavior. The cases, the first major VHF/UHF enforcement actions the FCC has taken in recent months, were brought to the Commission's attention by the Amateur Auxiliary.

The FCC's Riley Hollingsworth, K4ZDH, said that for almost a year, the repeater's control operator, identified as Blake B. Jenkins, N6YSA, of Berkeley, California, "has apparently not only allowed, but encouraged, use of the repeater by unlicensed operators, rebroadcast of cordless telephone calls, playing of music, and profanity and obscenity." He said extended QSOs have taken place between the control operator and unlicensed stations.

Hollingsworth said the situation was brought to the attention of the licensee, Bruce Wachtell of Carson City, Nevada, but nothing was done. "Such operations are not only contrary to the Amateur Radio Service rules and frequency allocations, but degrade the service for legitimate radio licensees as well," Hollingsworth said in a certified letter to Wachtell February 25. "The operation of the K7IJ repeater system in this manner may reflect adversely upon your qualifications to hold a Commission license."

Hollingsworth said Jenkins' "actions and omissions" while control operator were under separate FCC review, along with those of the secondary control op, Steven R. Rossi, KE6LNH, of Novato, California. The FCC set aside the recent license grants or upgrades of James C. Walker, KF6VAA; Gordon B. Reese III, KF6QKA; Michael J. Nichols, KF6UAS; and Eric B. Shuler, KF6BMG (ex-KF6UJU) pending further investigation. The FCC has permitted Reese, who just upgraded to Tech Plus, to retain his Techni-

cian operating privileges while its investigation continues.

The FCC also warned Mervyn Ehambrave of E Palo Alto, California, about unlicensed operation on the K7IJ repeater, and warned Timmy O Sheen Sr, N6MZA, about behavior including "jamming and rebroadcasts of cordless phones" on the repeater, Hollingsworth said.

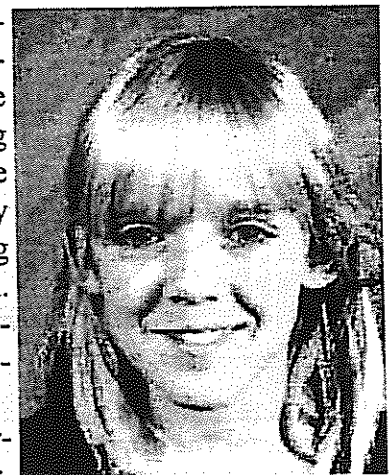
**OHIO HAMS HELP SEARCH FOR  
MISSING GIRL**

Hams in Ohio's Miami Valley helped to search for a nine-year-old girl reported missing February 7.

Erica Nicole Baker of Kettering failed to return home after walking the family dog near the Kettering Recreation Complex. The dog was found--still wearing its leash--about three hours later.

The youngster's parents are separated. Erica's father had dropped her off at her mother's home the afternoon of February 7. She was last seen in the park wearing

a pink raincoat, a Winnie the Pooh sweatshirt, and blue jeans. An official search, which included search



Erica Nicole Baker, age 9, missing from Kettering, Ohio, February 7. She is 3'-11", 65 pounds, blond hair, hazel eyes.

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**Give the MMRA World Wide Web Home Page a try.... let us know what you think... any ideas are welcome. We are looking into things like an MMRA list server. We now have our own domain name - mmra.org. The Web Page keeps getting better.....**

**WWW Address:**

**<http://www.mmra.org/~mmra/mmrainfo.html>**

### MMRA Information - Repeaters, Officers and Board Members

Marlboro	146.61	N1BHI/R	FTL	P	
Marlboro	449.925	N1HBR/R	FTL	P	PL - 88.5 in and out
Quincy	146.67	K1ML/R	PTL	P	PL - 146.2 out, none in.
Quincy	224.40	N1KUG/R	FTL	L	PL - 103.5 in, none out
Weston	146.82	KA1AL/R	PTL	P	PL - 146.2 out, none in
Weston	224.70	N1HBR/R	FTL	L	
Hopkinton	223.94	N1BHI/R	FTL	L	PL - 103.5 in, out
Stoneham	146.715	N1NVL/R	PTL	P	PL - 146.2 out, none in.
Stoneham	446.725	N1NVK/R	PTL	L	PL - 88.5 in, none out
Taunton	449.575	N1NVL/R	FTL	L	PL - 88.5 in, none out
Marlboro	53.81	W1BRI/R	PTL	L	PL - 71.9 in and out

[FTL = Full Time Linked PTL = Part Time Linked] [L = Patch available via link]

#### MMRA Officers:

President:	Andy Morrison, N1BHI
Vice President:	Clark Conti, N1NVK
Secretary:	David Croll, KT1X
Secretary:	Lynne Ausman, KA1NLD
Treasurer:	Ian MacLennan, AF1R
Clerk:	Ed Mulhern, N1NOM
Director:	Tom Qualtieri, WB1GMA
Director:	Al Kunian, KA1AL
Director:	Paul Cabral, N1ZCB
Director:	Bob Feltmate, WA1ZJE
Newsletter Editor:	Andy Morrison, N1BHI

•Voice Mail: 508 489 2282

•Email: [mmra@mmra.org](mailto:mmra@mmra.org)

•Web Page:

• [www.ultranet.com/~mmra](http://www.ultranet.com/~mmra)

### Minuteman Articles — Solicitation

If you have ever built anything, fixed something, or have an experience that you want to share, then you should submit an article to the MMRA Minuteman. Contact Andy Morrison, N1BHI, if you want to talk about it. We can scan artwork and schematics to

#### Important MMRA Club Information:

Membership Meetings: 3rd Wed of Sept, Nov, Jan, Mar, May at Campion Center, Weston at 7:30 PM  
Meeting Dates for 1998-99 Season: September 16, November 18, January 20, March 17, & May 19.  
Board Meetings: 3rd Wed of Oct, Dec, Feb, Apr. Meetings are open and members are welcome. If a visiting member wants to be on the agenda, please contact Andy Morrison beforehand.

Newsletters are mailed one week before each meeting; article submissions are due one month before each meeting.

The MMRA is dedicated to Amateur Radio and the public service. The MMRA is a registered non-profit Massachusetts corporation. Membership is open to all amateurs. Annual dues are \$25.00 individual, \$35.00 family.

### Items of Interest....

(Continued from page 4)

dogs and involved dragging, then draining, a pond near the park complex, turned up empty-handed.

The Dayton Amateur Radio Association van, the Warren County Mounted Search Team, and RACES were called in to aid with the search February 11. Hams from Warren, Greene, Montgomery, Clark, and Darke counties aided police, fire, and search teams by providing communication in the field and maintaining posts around the search perimeter.

The search was expanded to cover a 150-square-mile area around the rec complex. Miami Valley Urban Search and Rescue Team asked the DARA van to return February 12 to serve as command post support at the Germantown Dam Reserve. A decision also was made to use HF and packet instead of the well-monitored VHF and UHF repeaters, to minimize eavesdropping. Among those assisting was ARRL Great Lakes Director Dave Coons, WT8W.

As of February 25, Erica remained missing, according to Kettering Police. Her disappearance has been the subject of episodes on *America's Most Wanted*. Anyone having information on the missing girl is asked to call the Kettering Police, 937-296-2570.--Bev Priest, N8VZV

### FCC SAYS DELAWARE HAM MUST RETEST OR LOSE TICKET

The FCC has notified a Delaware ham that she must take her Amateur Radio examinations again or lose her

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## Items of Interest...

*(Continued from page 5)*

license. The FCC's Riley Hollingsworth, K4ZDH, says "questions were raised" about how Sheila Bowden, N3QQS, of Millsboro, upgraded to Extra, and said the FCC is requesting that Bowden start from scratch and retake "all the elements." Bowden was notified February 16 in a letter from Hollingsworth.

The FCC has the authority under Part 97 to re-administer exam elements previously administered by VEs. The FCC may administer the exam itself or designate a VEC or VE to administer the retesting session--typically employing a VEC that's different from the initial testing session.

The FCC told Bowden that she must retake the Amateur Extra Class examination series at an ARRL/VEC session before March 19 or lose her license. "You will be granted an Amateur Radio license consistent with any elements that you pass upon re-examination," Hollingsworth's letter said.

Hollingsworth said the FCC plans to call in "25 to 50 more" amateur licensees for retesting in the near future. Those individuals have not yet been notified, however. In all of those cases, Hollingsworth said, the FCC has reason to suspect the integrity of the examination process.

"The ham community needs to have a sense of confidence in the examination system," Hollingsworth said, adding that enforcement must not focus solely on operating violations. "This is a critical link in the chain."

Last month, the FCC dismissed the Extra class license formerly held by Bowden's husband, Wayne, after the Commission discovered "irregularities in the administration of the examination by the Volunteer Examiners." Wayne Bowden, formerly AA3RT, took the complete Amateur Radio examination series at an October 4 W5YI-VEC session. He had not held an amateur license before then.

The FCC is continuing its probe into alleged testing irregularities at Pennsylvania W5YI-VEC sessions October 4 and 6, including allegations that examinees might have been coached or given test answers.

## FCC SUSPENDS JERSEY HAM'S HF PRIVILEGES

The FCC has suspended for six months the HF privileges of a New Jersey ham. The FCC notified Walter P. Miller Jr., W2YEE, of Edison, New Jersey, that his privileges to operate below 30 MHz were being suspended for 180 days.

The license-modification letter February 16 from the FCC's Riley Hollingsworth, K4ZDH, came in the wake of an earlier warning letter to W2YEE. Hollingsworth alleged that W2YEE's 75-meter operation on the evening of February 4 was contrary to the Amateur Service Rules. Hollingsworth said Miller violated Section 97.1, basis and purpose of Amateur Radio; Section 97.101(a), good engineering and good amateur practice; and Section 97.119, identification requirements. The alleged operation took place on 3901 and 3950 kHz, the FCC said.

"Specifically, you were apparently broadcasting and talking to no particular station for several hours, during which time you prevented the use of the frequencies by others and maliciously interfered with other stations attempting to use the frequencies," Hollingsworth wrote. He said the Commission also had information indicating similar behavior occurred the next evening on 75.

"Such operation endangers the basis and purpose of Amateur Radio as a service, degrades it for other licensed operators and cannot be tolerated," Hollingsworth wrote.

Section 97.1 Basis and purpose, of the rules discusses the public service value of Amateur Radio, as well as its contribution to advancing the state of the art; expanding the reservoir of trained operators, technicians and technical experts; and enhancing international goodwill. Hollingsworth is on record linking certain types of on-air behavior with a negative perception of Amateur Radio in other countries.

A warning letter had gone out to Miller January 8 regarding similar operation. The FCC informed Miller at that time that he faced license revocation and fines.

Hollingsworth told Miller that the FCC was modifying his Amateur Radio license to prohibit HF operation for 180 days from February 16, the date of the modification notice. Miller has 30 days to formally protest the modification. If he does not protest it, the modification order expires August 16.

## Excerpts from FCC NPRM on License Structure

What follows are key parts of the NPRM issued by the FCC concerning a new structure for licensing. Since a lot of people have been talking about it, we thought we might print some of the NPRM to educate and raise questions. Where you see gaps in paragraph numbers, some stuff has been left out. Elimination of RACES licenses, and Written Examination procedures are also covered, but omitted here. The comment periods closed on January 15, so the die is cast.

What seems probable is that the new classes, A, B, C and D will look like this: Class A is the Extra Class, and will still carry a code requirement, probably less than 20 WPM. Class B is the Advanced Class and will carry a 5 WPM requirement, and give more spectrum privileges than Class C. Class C will lump the General, Tech Plus and No-code Tech classes together, and carry a 5 WPM code requirement. Class D will be the No-code Tech license. Current holders of the Tech Plus and General class licenses will be grandfathered into Class C. Novice license holders will be grandfathered, and continue to hold that license until some form of upgrade.

Of significant interest to us all are the possibilities behind the privatizing of enforcement. This represents a chance to put some teeth in the rules again...since the FCC's budget cuts have amounted to deregulation, enforcement has become almost non-existent except in extreme cases. The key to success of any change here will involve the path of evidence collection leading to prosecution.

As for the code requirement, it makes sense to have only 2 levels - 5 and perhaps 10 WPM. There are those who believe that since new technologies have eliminated the use of Morse from commercial and military communications, there should be no requirement for code. For some of us who grew up with Morse in the hobby this is heresy of the first order. But there is compelling logic behind the argument that since it is not needed, it should not be a requirement. However, Morse sub-bands should be kept in line with international allocations for code.

#### A. Number of License Classes

11. There are six classes of operator licenses in the amateur radio services. Each time that an amateur operator moves to a higher class, the VEs must prepare and administer an examination, and the Commission must process a license transaction to modify the data base and issue a license document. While we continue to believe there should be a number of license classes sufficient to encourage amateur operators to advance their skills in meaningful ways, six classes of operator licenses may be unnecessary. Reducing the number of classes of operator licenses would relieve the VEs from the tasks of preparing and administering unnecessary examinations. It would also ease the Commission's burden of providing oversight of the system and maintaining a data base of the current operator class for every amateur operator. We note that an ARRL committee recommended that the number of license classes be reduced from six to five by deleting the Novice Class and restructuring the Technician and Technician Plus Classes.

12. We have reviewed the various license classes and there appears to be an unnecessary overlap between the Novice, Technician and Technician Plus license classes. The Novice Class was established in 1951, at a time when telegraphy was still a common mode of radio communication in commercial, military, and marine services and applications. Currently, there are very few individuals who take the examination for the Novice Class operator license. For example, in 1997, we received only 961 applications for the Novice Class. By comparison, we received 21,416 applications for the no-code Technician Class operator license. We believe that the no-code Technician Class operator license has replaced the Novice Class operator license as the entry-level license class of choice. Therefore, we tentatively conclude that the Novice Class operator license no longer serves a significant, useful purpose and should be phased out, with the current holders of Novice Class operator licenses being grandfathered. No new Novice Class licenses would be granted, but anyone currently holding licenses would be permitted to modify or renew their licenses. In addition, Novice Class operators would be eligible for examination credit for the telegraphy requirement for any license class. We seek comment on this proposal. We also seek comment on disposition of the designated Novice bands. Currently, other class licensees can operate within the Novice bands, but only at reduced power. Given the small number of new Novice licenses now being issued, if we were to discontinue licensing new Novices, would it be appropriate to delete the frequency limitations on Novices and the power limitations on other classes of operators using the Novice frequencies, so that Novices would continue to be limited to 200 watts output power but could operate using the Morse code anywhere within the 80, 40, 15 and 10 meter bands?

13. The only difference between the Technician and Technician Plus Classes is that a Technician Plus operator has passed a five words per minute (wpm) telegraphy examination while a Technician Class operator has not. Both Technician and Technician Plus Class licensees predominantly use FM voice and digital packet technologies on the amateur VHF and UHF bands. Yet, the VEs are burdened with preparing and administering telegraphy examinations, and the Commission is burdened with processing the resulting applications and revising the data base. We therefore propose that the Technician Plus Class be phased out. Holders of an FCC-issued Technician Class operator license granted before March 21, 1987, have previously passed the written examination required to qualify for a General Class operator li-

(Continued on page 9)

## NPRM Excerpts....

(Continued from page 8)

cense. Other Technician Plus Class operators could qualify for a General Class operator license by passing written examination Element 3(B) which consists of thirty questions on the additional privileges of a General Class operator license and the 13 or 20 wpm telegraphy examination. We seek comments on this proposal.

### D. Privatization of Certain Enforcement Procedures

17. Pursuant to the Communications Act, the Amateur Auxiliary is composed of amateur operators who are recruited and trained by the Commission for the purpose of detecting, on a voluntary and uncompensated basis, improper radio transmissions, conveying such information to the Commission, and issuing advisory notices to persons who apparently have violated provisions of the Communications Act relating to amateur radio or who have violated any of the rules that govern the amateur radio service. In rule making petition RM-9150, the ARRL states that amateur operators in the Amateur Auxiliary could be used to a greater advantage. ARRL proposes rule changes to establish a private sector complaint procedure that would permit the volunteers to bring complaints of malicious interference directly to the Chief Administrative Law Judge (CALJ). Upon receiving the complaint, the CALJ would determine whether the evidence submitted establishes a prima facie case of malicious interference. If no such case is made, the information submitted would be returned to the volunteer observer and no further action would be taken. If a prima facie case is made, the matter would be assigned to an Administrative Law Judge (ALJ) for further proceedings, after issuance of an Order to Show Cause by the CALJ or an ALJ. The Wireless Telecommunications Bureau (Bureau) would be made a party and have responsibility for prosecuting the case. In support of its petition, ARRL states that the procedure it advocates would improve and increase the quantity and quality of enforcement of the amateur rules and also expedite the handling of malicious interference cases.

18. We applaud the ARRL for its creative thinking about ways to improve the Commission's enforcement processes. Its specific proposal, however, appears to be inconsistent with the statutory provisions governing the role of administrative law judges. Specifically, the assignment of duties to ALJs must be consistent with their duties and responsibilities as they relate to conducting formal hearing proceedings. Accordingly, while we do not seek comment on ARRL's specific proposal, we do seek comment, consistent with the ARRL's underlying concerns, on other ideas for improving our enforcement processes as they relate to amateur radio. One possibility, for example, would be to encourage or require persons bringing complaints of interference to the Commission to include a draft order to show cause to initiate a revocation or cease and desist hearing proceeding. We also request additional comments and suggestions on how we could better utilize the services of the Amateur Auxiliary, consistent with its statutory basis.

### E. Telegraphy Examination Requirements

23. In preparation for consideration of the code requirement at a future WRC, the ARRL surveyed amateur licensees, both members and non-members, to determine their attitudes on the Morse code requirement. Some 63 percent of ARRL members agreed that "[f]or the foreseeable future, it is important to retain the Morse code requirement in the international regulations," while 30 percent agreed that "[t]he Morse code requirement for amateur radio licensing is no longer relevant, in the international regulations." Among all amateurs, members and non-members, 57 percent favored retaining the Morse code requirement, while 35 percent regarded it as not relevant. Among ARRL members that addressed what the code speed requirement should be for full amateur privileges (Amateur Extra Class), 41 percent favored a requirement in the 10-13 wpm range, versus a minority of 32 percent who favored the current 20 wpm requirement. Based in part on these survey results, an ARRL committee proposed to reduce the General Class code speed requirement from 13 to 10 wpm, and for all code examinations to specify one out of five minutes of copy.

24. In view of changes in the technologies that amateurs use to communicate generally, and views with regard to the Morse code requirement specifically, we seek comment on all aspects of the Morse code standards used in our examinations. Do the three levels of 5, 13, and 20 wpm remain relevant to today's communications practices? Should we continue to have three different levels, or should these be reduced to one or two -- and, if so, what should be the required speeds? Were we to reduce the required Morse code elements, should we add elements to the written examination to ensure a working knowledge of the newer digital technologies which, in part, are replacing the Morse code? Or, should we consider specifying the method of examining for Morse code proficiency, such as requiring fill-in-the-blank or copying one out of five minutes sent, instead of allowing VEs to determine how to test for code speed? We request comment on these and any other issues related to our code speed requirements.

### VE Exam Dates for 1999

January 16, 1999  
 February 20, 1999  
 March 20, 1999  
 April 10, 1999 \*NOTE\* This is the SECOND SATURDAY  
 May 15, 1999  
 June 19, 1999  
 July & August \*NO EXAMS\*  
 September 18, 1999  
 October 16, 1999  
 November 20, 1999  
 December 18, 1999





# ❖ The Minuteman ❖

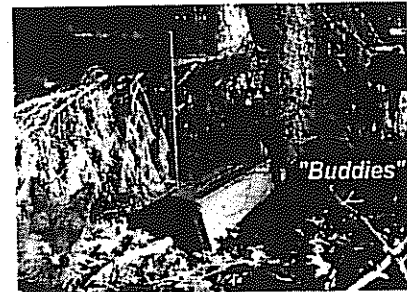
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March 1999



## In This Issue:

- Save That Old Equipment – Jon Titus, KZ1G
- 800 MHz Filter Project – Bryan Cerqua, W1BRI
- Items of Interest – Excerpts from the ARRL Letter
- The New Licensing Structure – Excerpts from FCC NPRM



N1ZCB Photo

There are *two* construction articles in this issue...you too could have something of value to share with you fellow MMRA members. Let us know...we will be happy to publish it.

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