

W5YI

America's Oldest Ham Radio Newsletter

REPORT

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable.

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FCC Begins Proceeding to Examine Amateur Service Rules

As part of their 1998 Biennial Review of regulations which are overly burdensome or longer serve the public interest, the FCC on August 10th released a 33-page *Notice of Proposed Rulemaking* (NPRM) which looks toward eliminating unnecessary rules and streamlining the licensing process in the Amateur Service.

The review is required by the Communications Act and is completed in even numbered years. The FCC said they "...believe it is appropriate to review all of our regulations relating to administering wireless services, not just those pertaining to providers of telecommunications services, to determine which regulations can be streamlined or eliminated."

The NPRM not only proposes new Part 97 rules, it asks the public to comment on several questions relating to the Amateur Service licensing and enforcement. The FCC wants to:

- 1.) Reduce the number of license classes from 6 to 4; (The Technician Plus CSCE for 5 wpm might make it five classes.)
- 2.) Permit additional Amateur licensees to act as volunteer examiners; and
- 3.) Eliminate Radio Amateur Civil Emergency Service (RACES) licenses.

In addition, the Commission wants public input on:

- 4.) Ideas to improve the Amateur Service enforcement process; and

- 5.) Possible changes to the telegraphy requirements and the written examinations;

Background

There are currently six classes of amateur operator licenses. The higher the license class, the more expertise the licensee must demonstrate by examination and the greater the frequency privileges the amateur operator is authorized.

Novice Class licensees pass a slow speed telegraphy examination and have limited frequency privileges. The Technician Class license holder may use any of seventeen frequency bands above 50 MHz. Holders of the Technician Plus Class have additional privileges in four shortwave bands, between 3-30 MHz. The General Class carries privileges in all twenty-seven amateur service bands.

The privileges of an Advanced Class licensee includes 275 kHz of additional spectrum in the high frequency (HF) bands. The frequency privileges of an Amateur Extra Class includes access to an additional 175 kHz in the HF bands. The class for which each examinee is qualified is determined by the degree of skill and knowledge in operating a station that the examinee demonstrates at the examination.

The last major restructuring of the Amateur Radio Service rules took place in 1989 when the FCC rules were completely rewritten to create a

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more meaningful and easy-to-use body of regulations. Since then, many new communication techniques have emerged and this is an opportune time to add flexibility to the Amateur Radio Service Rules.

The NPRM also discusses three petitions for rule making filed by The American Radio Relay League, Inc. (ARRL). In RM-9148, ARRL requests additional opportunities to VEs to prepare and administer examinations. In RM-9150, ARRL proposes to create a private sector complaint procedure for resolving cases of malicious interference in the amateur service. In RM-9196, ARRL wants the Morse code waiver procedures changed that lead to telegraphy examination credit for the handicapped.

Number of License Classes

There are six classes of operator licenses in the amateur radio services, Novice, Technician, Technician Plus, General, Advanced and the Amateur Extra Class. VEs administer new examinations each time that an amateur operator moves to a higher class, and the Commission must process the license transaction, modify the data base and issue a license document.

While the FCC believes there should be a number of license classes to encourage amateur operators to advance their skills, 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."

In 1997, an ARRL committee recommended that the number of license classes be reduced from six to five and more recently, the ARRL Directors voted for only four classes. Both the FCC and ARRL agree the Novice class should be phased out and that the Technician class has replaced it as the entry class of choice into ham radio. No Code International, a group which favors abolishing CW as a licensing requirement (but will accept a top speed of 5 wpm as an interim requirement) suggested three classes.

The FCC said "We have reviewed the various license classes and there appears to be an unnecessary overlap between the Novice, Technician and Technician Plus license classes. ...Currently, there are very few individuals who take the examination for the Novice Class operator license. 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."

The FCC concluded that the Novice Class operator

license no longer serves a significant, useful purpose. Current holders of Novice Class operator licenses would be able to retain, modify and renew them but no new Novice Class licenses would be granted. The FCC wants to know how the Amateur community feels about this and how the Novice bands should be used.

"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?" FCC asked.

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. Therefore, the FCC also proposed that the Technician Plus Class license also 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 license. 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." The Commission said they wanted comments on this proposal.

Tech Plus privileges not phased out in the rules

On the surface, it appears that the 5 words-per-minute code examination would no longer be needed or available since it is not a criterion for any of the four remaining classes (Technician, General, Advanced and Extra) of operator license. But that is not correct.

The appendix to the NPRM shows the new rules. But Section §97.503 (a) is not proposed to be changed! That rule provides for three telegraphy examinations, 5, 13 and 20 words-per-minute.

Furthermore, Sec. §97.505 (a)(6) still provides for element credit (and the issuance of a CSCE) when an examinee passes an examination element. Section 97.301(e) is revised to continue Novice and Technician Plus operating privileges to Novices and Technician Class operators "...who have received credit for proficiency in

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telegraphy in accordance with the international requirements."

While the FCC envisions that the Technician Plus Class would no longer exist, existing Novice HF privileges accorded Novice and Tech Plus operators - and Technician Class operators with a CSCE for Element 1A (5 wpm code) - will continue. (i.e. 80m - 3.675-3.725 MHz, 40m - 7.10-7.15 MHz, 15m - 21.10-21-20 and 10m - 28.10-28.50 MHz.) In effect, a Technician holding a CSCE for 5 wpm more-or-less becomes a fifth class.

No **new** Novice or Technician Plus Class licenses would be issued (as per new Sec. §97.17(e)). "Application for renewal of a Technician Plus Class operator/station license will be processed as an application for renewal of a Technician Class operator/station license." (as per new §97.21(a)(3).) Currently held Novice licenses will be able to be renewed indefinitely.

While Novice Class operators would still be limited to 200 W PEP transmitter power when operating on the HF bands, (25 W on 1.25m and 5 W on 23cm) other operator license classes are not so restricted (except in the 30 meter band.) This is a change from the previous rules which required all HF operators to observe the 200 W Novice power levels.

Greater Volunteer Examiner Opportunities

Currently, an Advanced Class operator cannot prepare or administer a telegraphy examination for an examinee for a General Class license. Only an Amateur Extra Class licensee can administer that examination. The ARRL requested in RM-9148 that the Amateur Radio Service rules be amended to permit Advanced Class operators who are VEs to prepare and administer examinations for a General Class operator license.

The FCC agreed with the ARRL that this was legal under the law and would help fulfill the need for more volunteer examiners. The FCC also proposed to allow General Class licensees to be VEs for the Technician Class. This proposal is actually unnecessary since the General and Advanced Class was authorized to administer Technician exams on July 1, 1993. (*W5YI Report*, 6/1/93, p. 8)

"In all cases, examiners will be administering only elements which they themselves have received credit for. These proposals will benefit potential amateur service licensees by having additional volunteer examiners available for the examinations," FCC said. "We seek comment on these proposals."

RACES Station Licenses

The Radio Amateur Civil Emergency Service (RACES) is a radio service using amateur stations for civil

defense communications during periods of local, regional or national civil emergencies. No new RACES station licenses have been granted since July 14, 1980 when they were discontinued to conserve Commission manpower and resources. At the time of that action, there were 611 RACES licenses. Currently, there are only 249 RACES licenses. The Commission is now proposing to phase out RACES station licenses by simply not renewing them.

"By eliminating the RACES licenses, the Commission is taking a step which not only will conserve the Commission's financial resources, but will also eliminate licensing duplication. It should be emphasized that the same emergency communications that are now transmitted by RACES stations can continue to be transmitted by primary, club or military recreation stations."

"Our rules permit two types of stations to operate as part of RACES: (1) a licensed RACES station, and (2) any amateur station that has been properly registered with a civil defense organization (See Part 97.407.) Thus, to engage in RACES communications, it is not necessary to have a RACES license with a separate and distinct call sign. We invite comments on this proposal."

Privatization of Certain Enforcement Procedures

The Communications Act provides for an Amateur Auxiliary which 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. Advisory notices are issued by Auxiliary members to persons who apparently have violated the Amateur Services rules. This information concerning the violation is then conveyed to the Commission.

In rule making petition RM-9150, the ARRL stated that amateur operators in the Amateur Auxiliary could be used to a greater advantage. ARRL suggested rule changes that would establish a private sector complaint procedure permitting 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 appears to establish a bona fide instance 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 the case appears legitimate, however, the matter would be assigned to an Administrative Law Judge (ALJ) for further action after an *Order to Show Cause* has been issued. The Wireless Telecommunications Bureau would be made a party and have responsibility for prosecuting the case. The League believes 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.

The FCC said that while it "...applauds the ARRL for its creative thinking about ways to improve the Commission's enforcement processes" its proposal is not legal under the law 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."

The Commission did say, however, that they 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."

Telegraphy Examination Requirements

"Currently, three telegraphy examination elements are administered by a team of three VEs to ham operator applicants. The elements an examinee passes determines the class of operator license granted. In a telegraphy examination, the VEs determine the examinee's level of skill in sending and receiving text in the international Morse code.

"The rules delineate three levels of skill in telegraphy, based upon the rate at which an examinee correctly receives a telegraphy message: five, thirteen and twenty words-per-minute (wpm).

"In the early days of amateur radio, radiotelegraphy was the primary communication mode of all radio operators, including amateurs. Testing for knowledge of Morse code telegraphy was necessary to ensure that amateurs could recognize and stay away from Government and commercial stations as well as stay clear of maritime distress messages.

"Today, radiotelegraphy is just one facet of many diverse modes of radiocommunication that require a technologically literate licensee. In 1990, in response to the sentiment of the amateur community, we established a codeless Technician Class operator license. In so doing, we stated that the amateur service should attract technically inclined persons. We also stated that we believed that telegraphers would be in less demand than electronics and communications experts.

"Therefore, we provided an entry level opportunity to

otherwise qualified persons who found that telegraphy was a barrier to pursuing the purposes of the amateur service. Those purposes include encouragement and improvement of the amateur service by providing opportunities for advancing both communication and technical skills, and the expansion of the existing reservoir within the amateur radio service of trained operators, technicians and electronics experts.

"The decreasing role of telegraphy as a communications mode also is demonstrated in our implementation of the Global Maritime Distress and Safety System. (GMDSS). In permitting GMDSS to replace the mandatory Morse code equipment and operator, we recognized industry movement to newer and better technology for distress situations. The GMDSS relies on satellite and automated terrestrial communications systems for distress and safety communications. The Commission noted that by incorporating these advanced communications techniques into the safety system, GMDSS would significantly improve safety of life and property at sea throughout the world.

"The international *Radio Regulations (Radio Regulations)* that apply to the Amateur Radio Service require that all amateurs licensed to operate below 30 MHz demonstrate their ability "...to send correctly by hand and to receive correctly by ear, texts in Morse code signals." The *Radio Regulations* do not specify any particular speed. We note that the 1995 World Radiocommunications Conference (WRC-95) resolved that Article S25, which includes the international amateur code requirement, be considered at the 1999 WRC. Subsequently, this consideration was delayed to the WRC scheduled to be held in 2001. [We now understand that WRC-99 has been delayed until the year 2000 -- with WRC-01 taking place in 2002.]

"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.

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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.

"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."

Telegraphy waivers for the handicapped

"Additionally, in RM-9196, the ARRL requests amendment of the amateur rules which allow telegraphy examination credit for the higher telegraphy speeds to examinees with a disability. Specifically, the ARRL requests that the examinee be required to attempt the higher-speed telegraphy examination before examination credit is given pursuant to a doctor's certification. In addition, the ARRL requests that volunteer-examiner coordinators (VECs) be authorized to request medical information from the certifying physician pertaining to the examinee's disability.

"It should be noted that these issues only remain relevant if we retain the higher telegraphy speeds requirement, since if the requirement were eliminated, a person with a disability would not have to apply for examination credit. We tentatively conclude that, if we do maintain the requirement, neither of these proposals is an appropriate means to address potential abuses of the physician certification requirement. We believe that these proposals place an unfair burden on examinees with disabilities, and raise serious privacy and confidentiality concerns. We seek comment on ARRL's proposal and our tentative conclusion.

Written Examinations

"In addition, a written examination is prepared and administered to each applicant for an amateur operator

license in order to demonstrate to the Commission that the examinee possesses the operational and technical qualifications required to perform properly the duties of an amateur service operator licensee.

"The written examination for each license class currently specifies ten general topics and the number of questions for each topic that must be asked in an examination. A uniform national database of multiple-choice questions and answers is approved by the National Conference of VECs and is periodically updated on a regular basis so that all publishers and applicants have access to current materials. This is accomplished on a purely voluntary basis, without formal Commission involvement.

"Determining the components of written examinations was carried over into the VE system from those components used when the Commission previously prepared and administered the examinations. In light of the fact that written examinations now have been prepared and administered under the VE system for over a decade, we seek comment on whether the written examination requirements should be modified to provide VEs and VECs additional flexibility in determining the specific contents of written examinations, on the specifics of what such flexibility should entail, and on the advantages and disadvantages to providing such flexibility.

"Specifically, we ask commenters to address whether the general topics set forth in Section 97.503 of the Commission's Rules adequately cover the significant categories of information relevant to determining whether an applicant has the requisite operational and technical qualifications to become an amateur licensee. For example, does the current list of topics adequately cover current technology and contemporary amateur operating practices?"

"For those commenters who suggest addition or deletion of general topics, we ask them to include the rationale underlying such proposals. In addition, we ask commenters to discuss whether the required number of questions from each general topic should continue to be established by rule. For those commenters who suggest altering the number of questions, we ask that they discuss alternative numbers or percentages and the reasons therefore.

Editorial Note. As a member of the VEC's Question Pool Committee (QPC), I have often wondered why it is necessary for a new amateur to be examined on mathematical formulas, circuit components and construction techniques when all will be using commercially made mobile or handheld transmitting equipment. The Part 97 rules require it.

"We are particularly interested in comments from VEs and VECs regarding any changes they would

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recommend, either individually or collectively, in the written examination requirements on the amateur community generally, as well as on the amateur examination process specifically, including how, if at all, they will affect the integrity of the examination and licensing process.

For instance, we seek specific comment from VEs and VECs regarding how modifications to the written examination requirements would affect their ability to conduct examinations in an effective, efficient and expeditious manner."

The FCC also proposed in the NPRM to fold the Element 2 (Novice) question pools into the Element 3A pool. Passing Element 3A to qualify for the Technician license would require that 48 of 65 questions be answered correctly. (See new §97.503(b)(1).

Comment Date

Interested parties may file comments on or before **December 1, 1998** and reply comments on or before **January 15, 1999**. Comments may be filed using the Commission's Electronic Filing System (ECFS) or by filing paper copies.

Comments filed through the ECFS can be sent as an electronic file via the Internet to <<http://www.fcc.gov/e-file/ecfs.html>>. Generally, only one copy of an electronic submission must be filed. If multiple docket or rulemaking numbers appear in the caption of this proceeding, however, commenters must transmit one electronic copy of the comments to each docket or rulemaking number referenced in the caption. In completing the transmittal screen, commenters should include their full name, Postal Service mailing address, and the applicable docket or rulemaking number.

Parties may also submit an electronic comment by Internet e-mail. To obtain filing instructions for e-mail comments, commenters should send an e-mail to ecfs@fcc.gov, and should include the following words in the body of the message, "get form <your e-mail address>." A sample form and directions will be sent in reply.

Parties who choose to file by paper must file an original and four copies of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, commenters must submit two additional copies for each additional docket or rulemaking number. All filings must be sent to the Commission's Secretary, Magalie Roman Salas, Office of the Secretary, Federal Communications Commission, 1919 M St., N. W., Room 222, Washington, D. C. 20554.

Parties who choose to file by paper should also submit their comments on diskette. These diskettes should be submitted to: M. J. DePont, Public Safety and Private

Wireless Division, Wireless Telecommunications Bureau, Room 8332, 2025 M Street, N. W., Washington, D. C. 20554. Such a submission should be on a 3.5 inch diskette formatted in an IBM compatible format using WordPerfect 5.1 for Windows or compatible software. The diskette should be accompanied by a cover letter and should be submitted in "read only" mode. The diskette should be clearly labeled with the commenter's name, proceeding (including the lead docket number -- in this case, WT Docket No. 98-143), type of pleading (comment or reply comment), date of submission, and the name of the electronic file on the diskette. The label should also include the following phrase "Disk Copy - Not an Original." Each diskette should contain only one party's pleadings, preferably in a single electronic file. In addition, commenters must send diskette copies to the Commission's copy contractor, International Transcription Services, Inc., 1231 20th Street, N. W., Washington, D. C. 20037.

Alternative formats (computer diskette, large print, audio cassette and Braille) are available to persons with disabilities by contacting Martha Contee at (202) 418-0260, TTY (202) 418-2555, or at mcontee@fcc.gov. This Notice can also be downloaded at: <http://www.fcc.gov/df/>

The FCC also advised us that all electronically filed comments will be available for immediate review over the Internet shortly.

(Adopted by FCC Notice of Proposed Rulemaking, July 29, 1998. Released: August 10, 1998)

Editorial Comment: The proposed NPRM was first submitted to the FCC Commissioners by the Wireless Telecommunications Bureau in June. It is our belief (and we have not been able to get confirmation) that the original version proposed only one telegraphy speed, five words-per-minute.

The reason why we believe that 5 wpm was solely proposed is two-fold: (1.) to eliminate the need for waivers of the 13 and 20 words-per-minute code speeds to handicapped applicants and (2.) manual telegraphy is no longer seen as an important communications mode in the 21st Century. We also understand that a March 1998 meeting held in Washington, DC between ARRL officials and the FCC's Public Safety and Private Wireless Division pointed to the fact that the Bureau would be proposing the 5 wpm top code speed.

It was on this basis that the ARRL decided to submit their own restructuring proposal in July before the FCC released the NPRM.

But when the *Notice of Proposed Rulemaking* document reached the Commissioner level, it was felt that the amateur community should be afforded the opportunity to comment on the amateur telegraphy speed issue.

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■ **Apple Computer's new iMac PC is apparently a hit!** At least it is right now. Tens of thousands of them were sold the first day they were available, August 15th. The "i" in iMac stands for Internet, but it also handles e-mail and word processing. There is not much application software available yet for the iMac.

The 38 pound machine sports a 233-MHz (non-Intel) processor, 4-gig hard drive, 56K modem, CD-ROM drive, 32 megs of RAM and an attached 15" high-resolution monitor housed in an attached space-age translucent (egg-shaped) cabinet. What it does not have is a "real" keyboard, a standard mouse (the one you get is round), a standard printer connection or a 3 1/2" floppy drive. But it is selling like crazy! Apple believes there are potentially 16 million iMac buyers and Apple is spending \$100 million to promote the machine.

■ **The Commodore 64 (at least its name) is making a comeback!** Another Internet machine was introduced recently at the Hanover (Germany) computer trade show. A startup firm in the Dutch Antilles is calling it the "Commodore 64 WCI" (for Web Computer International.) Cost will be around \$400. And like the original Commodore 64, it uses a TV as a monitor. It has 16 MB of RAM, a floppy drive and a 56Kbps modem. Operating system is Windows 3.1, browser: Netscape Navigator. And, yes! it also runs C64 software.

■ **A message encoded by the U.S. Government's 56-bit data encryption standard** has been broken in a computer industry contest in less than three days. A custom-built computer tested 88 billion different combinations each second for 56 hours until it found the correct one. Previous contests enlisted computers linked together through the Internet, but took weeks or even months to complete. Three days is a new record.

The contest was intended to alert the government that the once-thought-secure standard is in jeopardy of being deciphered by enemy governments at whim.

The answer, computer experts say, is to adopt a standard with far more bits to make it more difficult for any computer to sort through the enormous number of calculations. What was the message? "It's time for those 128-, 192- and 256-bit keys."

■ **President Clinton's testimony before the grand jury was transmitted** between the White House and the federal courthouse a mile away. "Military grade" encryption was used to foil hackers.

■ **Would you want a hacker working for your company?** Apparently some do. Even the FBI, Secret Service and the Department of Justice has been known to use them. Hackers even have their own employment agency! Check out: <<http://www.rent.a.hacker.com>>. One of their specialties is "Encryption/Decryption implementation." A teenager who lives on the Internet often knows more about networking, software and computers than experienced computer science graduates.

■ **FBI says it must stay current with evolving technology!** The Justice Dept. has asked Congress to add language to an appropriations bill that would provide police with the precise location of cellular telephone users.

The surveillance information would be provided without a court order when there is suspicion of a felony, pursuit of a fugitive or where human safety is in jeopardy.

A triangulation scheme currently being deployed by 911 emergency centers is used to pinpoint users by measuring variances in signal strength. Civil-liberties advocates are calling it a dangerous and unconstitutional invasion of privacy.

■ **The FBI is under fire for cutting off the ham and broadcast communications going in-and-out of the Branch Davidian complex** in Waco during the David Koresch standoff. In a 1994 two-page letter to Newt Gingrich, the FBI admitted to setting up a "physical and electronic perimeter ...to avoid further loss of life and to try to bring the crisis to an early resolution."

The "electronic operations" approved by the Justice Department consisted of intentional radio interference to amateur radio communications and to broadcast radio and television. It is also charged that the FBI tapped telephones, diverted telephone lines and intercepted cellular communications ...all without a warrant.

In its defense, the FBI says that ITU law permits its "Members ...to cut off any ...private telecommunications which may appear dangerous to the security of the state or country to its laws, to public order

or to decency." The FBI also said the FCC was on scene at their invitation.

Opponents of the FBI/FCC action said "The amateur radio station was no danger to security and the operators broke no law and complied with FCC Rules."

■ **Cellular phone companies, local municipalities and state governments have agreed to a "cease fire"** on the placement of wireless communications towers. Cellular firms, who want to reduce wireless "dead spots", and the new PCS (personal communication service) which uses smaller cells require that thousands of new tower sites be constructed nationwide.

Federal legislation prohibits local governments from banning wireless service. Cities responded by adopting moratoriums on the construction of new communications towers which effectively brought construction of new cell sites to a halt.

A new agreement has now been hammered between the telecommunications industry and the nation's 36,000 local and state governments that provides specific guidelines that must be followed when approving and erecting new communications towers.

■ **Local police departments will eventually be able to use a host of new Buck Rogers telecommunications-based features ...including mug shots and fingerprints transmitted to the police car.** And local, state and federal law enforcement officials will be able to quickly swap information between their agencies by operating on the same channels.

Mandated by Congress last summer, on August 6th the FCC approved the re-assignment the largest block ever allocated at one time for the Public Safety Services. The 24 megahertz of spectrum came from TV Channels 63, 64, 68 and 69 located in the 764 to 806 MHz band. But law enforcement won't get all the spectrum immediately. There will be a transition period which could take years.

■ **A raging controversy exists in the telephone service industry.** Are telephone calls made over the Internet by calling a local number considered to be local or long distance. Should they be subject to access charges paid by long distance carriers to local telephone companies. And what about intrastate calls made when the ISP is located out of state?

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■ **Financial problems in Russia have put the future of the multibillion-dollar 502-ton International Space Station (ISS) in doubt.** The five-year construction project is off to a bad start and Congress wants some answers. While sixteen countries are involved, the primary contractors are the United States and Russia. It will take some 45 American shuttle flights and 15 Russian rocket launches to build the ISS.

The space station was originally targeted at \$20 billion. Now a figure of \$40 billion is being talked about. And the General Accounting Office (GAO) said the cost - including preconstruction preparations, five years of orbital construction and 10 years of station operations - could run as high as \$100 billion, five times the original figure.

The first two ISS modules, the Functional Cargo Block and the Unity Node made by the United States are now due to be launched in November with the third element, due for lift-off in April. But completion of the critical Russian-funded and constructed Service Module is way behind schedule due to chronic financing problems.

The Russian Space Agency needs \$100 million now, but the Russian government has yet to provide the money. To bail Russia out, NASA wants to "borrow" money from its fiscal 1999 appropriations to "lend" to Russia to get the project back on track. NASA also has plans on the back burner to make a \$170 million substitute model called the Interim Control Module if Russia reneges.

■ **"The government is coming to the Internet!"** So says ex-FCC Commissioner Rachele Chong, now a partner at a California international law firm.

She gives four reasons why Washington has suddenly taken a keen interest in the Internet and computer industry.

→ **Money:** Sales on the Net are expected to surpass \$300 billion by 2002 and politicians seek campaign donations.

→ **Local Regulation:** State and local jurisdictions have recognized the Internet marketplace as a new source of revenue to meet strained local budgets.

→ **Public Trust:** Congress is fulfilling its traditional role of "protecting" the public (from scams and cybersmut)

and encouraging fair competition.

→ **Constitutional issues:** Free speech, privacy, encryption, copyright and telecom policy are all within Congress purview.

■ **The FCC is still arguing whether or not its headquarters should be forced to move** to The Portals, a real-estate development south of the Washington, DC metropolitan area. It seems that a major Democratic campaign contributor with ties to fellow Tennessean Vice President Al Gore was involved in The Portals project. There is speculation about whether the FCC move to The Portals was in some way improperly influenced.

■ **Former pirate goes straight. Illegal unlicensed broadcaster, Glacier City Radio, 88.5 FM, Anchorage, Alaska has apparently gone legit.** KGCR is returning to the air waves on 88.9 FM as a legal broadcaster. They have now obtained a Class A license which permits them to broadcast at 100 watts. But they will continue at their 10 watt level since they don't have the equipment or money to broadcast at higher power. KGCR originally wanted a Class D 10-watt license, but the FCC is phasing out 10-watters in Alaska just as it has already done in the lower 48 states.

■ **The FCC is looking for ways to improve access to telecommunications.** There is a growing gap between the communications "haves" and the "have nots."

Forty-one percent of white households have a personal computer in their home versus only 19 percent of the Hispanic and African-American families. And only 47 percent of Native Americans living on Indian reservations even have a telephone ...less than half the white household average.

One way to narrow the digital divide is through an FCC program that provides schools, and libraries with cheap Internet hookups. The "e-rate" or education rate phone charge on your telephone bill is intended to subsidize Internet access. The public library in Brownsville, Texas, where 57 percent live below the poverty level, now has 10 public workstations with high-speed Internet access with 19 more to be added shortly.

Despite examples of its success, legislation is pending in Congress to kill the e-

rate subsidy. Critics call the fees, the Gore tax - since the vice president supports the wiring of the nation's schools to the Internet by the year 2000.

■ **Latelco, a small telephone company with only 5 lines in Mexico City is selling long distance telephone service** over the Internet to the United States at only 1.3 pesos per minute. It is one of the fastest growing telephone companies in Mexico! Calls via the national Mexican telephone companies cost five times more.

■ **Congress has made the final pass on an adjustment to the fee schedule** for Wireless Services effective with FCC receipts of 9/14/98. Applications received on or after 9/14/98 will be subject to the new fee structure. This fee adjustment is the result of a bi-annual review of application fees and the annual review of regulatory fees for the entire Commission.

The previous FCC regulatory fee for an Amateur Vanity Call Sign was \$50.00. The new fee is \$13.00 for a ten year term. (The Payment/Fee Type Code is WAVR)

There has also been a change to the Mellon Bank lockbox mailing address. Vanity Call Sign Form 610-V applications must now be sent to the following lockbox address:

Federal Communications Commission
Wireless Bureau Applications
P. O. Box 358130
Pittsburgh, PA 15251-5130

Note that any payment sent to the FCC must be accompanied by FCC Form 159 (July 1997 edition.) The 159 collects the Taxpayer Identification (Social Security) Number as required by the *Debt Collection Improvement Act of 1996*.

The FCC Form 610-V and FCC Form 159 is available without cost from the W5YI Group, P.O. Box 565101, Dallas, TX 75356. Please enclose a business sized self-addressed-stamped envelope.

Electronic filing for Vanity Call Sign Requests: An interactive version of the Amateur Station Vanity Call Sign Request Form 610-V is available online via the Internet at: <<http://www.fcc.gov/wtb/amradsrv.html>>. Choose Interactive Vanity Call Sign Application. Detailed filing instructions are available by clicking on the item number on the Internet form.

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ARRL PRESIDENT COMMENTS ON RESTRUCTURING

ARRL President Rod Stafford, W6ROD sent out the following e-mail message to several amateurs who commented on the League's proposal to restructure the Amateur Service. (We were forwarded copies from various recipients.)

On July 22, 1998, the League sent a letter to the FCC Commissioners proposing that the Amateur Service be restructured to four Amateur license classes instead of six. Class D would be the same as the current Technician, Class C=General with a 5 wpm code requirement, Class B=Advanced w/12 wpm and Class A=Extra, also with a 12 wpm telegraphy requirement.

From: Rod Stafford <kb6zv@ix.netcom.com>
Date: Monday, August 03, 1998 6:31 PM
Subject: Proposed Simplified Amateur License Structure

Thanks for your input about the ARRL's licensing restructuring and testing proposal adopted by the ARRL Board of Directors a couple of weeks ago in Connecticut. Let me see if I can shed some light on some of the reasons for the proposed changes.

I am certain that some hams will find change itself to be very disconcerting. It is our nature to like things the way they are and the way they were. We're generally comfortable with that and not comfortable with change. In many instances, we would like to return to "the good old days" of ham radio. However, there are some very real reasons why amateur radio has to make some changes if it is to be around in the 21st century.

As amateur radio operators, we're slipping farther and farther behind on the technology power curve, and people take note of that. Take a look at the primary modes of communication we use: SSB, FM, CW, etc. Each of those modes of operation have been around 50, 60, 70 years or more.

I was traveling by airplane not long ago and the person sitting next to me was a retired electrical engineer. As we chatted I told him about my involvement with amateur radio. He had a ham license about 45 years ago. He was amazed hams still use SSB, let alone CW. He wondered why the hams didn't use some of the more "modern" modes of communications.

This is a typical reaction. We have to change people's perception of ham radio being a pursuit involving 70 year old communication techniques. One of the ways to help change that perception is to modernize our approach to CW. We're not eliminating it, we're simply trying to put in its proper perspective as we move into a new century.

CW will be around for a very long time as one of the modes of communication for amateurs. There are still many people who use CW to communicate. However, as an examination element, it carries much more weight than it should at the present time. I believe the League proposal will put CW into a more proper perspective in the examination context as we try to bring amateur radio into the current technological environment.

I don't think there are many people who see CW as the future of amateur radio. If they do, in my opinion, they are looking backwards and not to the future of ham radio. And, as I mentioned, we're not eliminating CW. There will be plenty of people operating CW just as they have for years.

Most non-hams think of ham radio as a hobby. And as a matter of fact, most hams think of amateur radio as a hobby. Sure, the League tries to stress the emergency communications and the public service aspects of amateur radio to those that are unaware of that role and people outside of ham radio do have some understanding of that role of amateur radio. It is certainly one of the first things I tell people about amateur radio if they have no acquaintance with the amateur service. However, the bottom line is we're viewed as a hobby.

The point is, we have some very valuable spectrum that is available to us for hobby purposes, and yes, even for our public service activities. It has become more and more difficult in recent years to justify retaining and defending our spectrum from commercial interests who make some very good arguments as to why they should be allowed to use our spectrum for endeavors that will generate jobs, used advanced telecommunications techniques and put the spectrum to use for commercial purposes, not just for hobby purposes.

Even considering the perception that what we do is a "hobby," we can counter some of that perception that we're "a dying breed" clinging to old technologies when we can show that amateur radio is a vital, growing activity.

One only has to look at the statistics in the last few years to find that to be untrue. In recent years the average age of a active ham has crept up to nearly 60 years old. The growth rate of new hams coming into the service is at a very low rate of less than 2%. That doesn't even keep up with the "loss rate" of people who die or simply leave amateur radio for various reasons.

The argument that we need to retain spectrum for the growth of amateur radio in the face of such dwindling numbers is an unconvincing one to anyone, such as the FCC and commercial interests, who take a moment to look at the numbers.

Taking these factors into consideration, the perception of ham radio is one of an aging group of hobbyists

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who use "less than state-of-the-art" communication techniques. We may not like that perception but that is what it is in many circles of the communications industry. And of course the communications industry is where we have to compete for our spectrum.

The changes proposed by the League are not the total solution to the problem. We still have to make an effort to move into more advanced communication techniques in the near future. We need to take advantage of some of the more cutting edge modes of digital communication to allow for more efficient use of the spectrum. The Board of Directors is aware that merely restructuring license classes and modernizing the CW testing requirements is not the whole answer.

The League is going to have to take the lead in promoting technological advances within amateur radio even if it is just stressing the idea that amateurs put to use in amateur radio some of the techniques used by the commercial services. Hopefully, we'll be able to rise to that challenge.

And it's not just the League that needs a different mindset to get us into the next century with a vital amateur radio. For example, we might persuade repeater coordinators to give priority to sanctioning repeaters that are going to be using advanced digital modes rather than the 50 year old narrow band FM mode.

We might even persuade radio manufacturers to market HF radios that use other modes than CW and SSB as the primary modes of communication below 30 MHz. There are digital techniques that can be applied to the amateur service that would make more efficient use of the spectrum and minimize the interference potential between stations.

I suppose the bottom line is we in amateur radio have to start thinking about the future ...and where we want amateur radio to be in the future. Changes within ham radio have been suggested for quite a number of years. The pressure for change has been building. The FCC has had a continuing stream of proposals from individual amateurs to make significant changes over the last ten years or so.

The League, for various reasons, has resisted such change, myself included. However, I think the proposal the League recently adopted will move us as amateurs in the direction we need to be going.

Any comments you have regarding the specific provisions of the proposal can be addressed by filing comments with the FCC when, and if, the matter is released for public comment. *[NPRM released August 10, 1998]*

I also have to make a comment about the "motives" of the members of the Board in making such a proposal. Some hams who are not in favor of the changes have

said the Board made the move to make sure more radios were sold. Some have said it was to attract more members to the League. I can state without any hesitation that the Board acted in the best interests of amateur radio and for no other reason.

Most all of the members of the Board have been amateurs for 35 years or so and some even much longer. These are not people who want to see amateur radio be hurt in any way. They don't spend 30 or 40 hours a week working on amateur radio matters for anything other than the benefit of amateur radio.

I don't think there is anyone on the Board who cares how many radios Yaesu, Icom or Kenwood sell. Those companies are involved in other commercial activities and the amateur radio segment of their business is not large in the context of their entire commercial enterprise. If one or more of those companies should leave the amateur radio market, some other company will fill the void and market amateur radios. Of course, that assumes there is an amateur radio service.

The League would obviously like to have more of the amateurs as members. I certainly don't dispute that. But that doesn't mean it will benefit any person on the Board if the League has additional members because we are volunteers to begin with.

We don't get paid and we certainly don't get any bonuses if additional members join the organization. It actually means the League can provide more in the way of services to the members more than anything else.

The changes proposed by the Board are needed. Other changes along the lines that I mentioned are also needed for the amateur service to continue to be a growing, valuable service.

I would hope that you would consider these factors in assessing the need for and the effect of the League's proposal. There's no reason the changes are being suggested other than they are needed. I have resisted engaging in any debate about the pros and cons of CW and how it is or is not a filter for "quality" amateurs getting on the HF bands. There are plenty of people who will spend hours and hours debating that subject. I don't.

Not only that, it misses the whole point of why the Board suggested the changes it did. If you have an urge to do that, I can suggest some Internet newsgroups where that debate has been raging for years and with no satisfactory conclusion, I might add.

Incidentally, I have drafted this response to send to a number of individuals who have written or e-mailed me on the subject of the restructuring and testing proposal so if a ham friend says he received the same response or it appears in electronic form somewhere, that is the reason.

73, Rod Stafford W6ROD