

The following are my comments on NPRM #98-143

First, I should discuss my credentials for my comments. I am an Advanced class amateur having first been licensed in 1969 at the age of 14. I am an electrical engineer by profession. Through my involvement with a local radio club I have been an instructor in Novice, Technician, General, and Advanced license theory as well as 5 WPM code classes for 20 years. Those 20 years have seen over 500 people attend the club's classes. About 1/2 have achieved their goal of successfully passing a test. The club I am involved with is also one of the 14 VEC. I have participated in testing sessions on an occasional basis. These comments are my own and not an official statement from the club.

As to the matter of code testing. Current international regulations require a recognition of Morse code. 5 WPM is a suitable test for code recognition. For some reason Morse code testing has become an extremely emotional issue. Trying to remove emotion from the issue, CW is a mode of communication just as voice, packet, television and others are. There is not a typing test to gauge the ability of a person to communicate using packet or teletype, why test for CW. The CW test is seen by many as sort of a hazing ritual. Even people who insist CW testing must remain never use CW on the air. The proposal covers CW testing only, not CW operating. CW operating will remain as long as there are people who wish to pursue it. As long as international treaties require CW testing, 5 WPM is enough. Amateur radio is probably the only radio service still using let alone requiring the knowledge of Morse Code. If we are to be a technical pursuit, then we must step into the high-tech future, not be stuck in the past. Doing away with higher code speed testing would also eliminate the need for code test disability waivers removing that burden from volunteer examiners and the FCC. Code tests should be 1 minute of solid copy of plain text out of 5 minutes.

As to the matter of number of license classes. The current 6 classes of amateur license are too much. I do not believe any other country has as many grades. Even the proposal of 4 may still be too many, but people tend to react negatively to sweeping changes at any one time. Since few of the comments I have read have made any radical proposals, allow me. Ideally, I think there should be 2 grades of license, Technician and General. This would sufficiently define the amateur radio service (as well as reduce FCC and VEC administrative overhead). Two classes would allow for two very different written tests with little overlap. The General test would include a 5 WPM code test. It would then not be difficult to construct meaningful tests of 75 or more questions. As to what to do with current licensees, General, Advanced and Extra would become new Generals, Technicians would remain Technicians. Current Novice and Technician Plus licenses would receive credit for the 5 WPM code test they have already passed and would just need to take the General written test to become Generals.

The current 5 tests result in adding questions and material to fill out the tests sometimes without showing relevance to the license, possibly having a number of questions only slightly different, and producing overlap between tests. Too much emphasis is placed on electrical theory and not enough on radio and communications. An example is the testing of advanced AC circuit theory on the advanced class license. My experience has found that many people find this area very difficult to learn, and most never master it and in fact soon forget all they studied after taking the test. I do not propose to make the tests easier, in fact the tests could have an increased number of questions (possibly 100 for Technician and 75 for General) for

each license class. Testing should include expanded rules and operating procedures. Operating procedures should relate to the license class being tested. A technician license which operates on VHF and UHF only should not be tested on HF radio propagation. Advanced electronics will be learned by the people who wish to move beyond being an operator and into radio and electronic experimentation. It should not be forced on people who will never need to know it.

As to whether the number of questions on particular subjects should be specified by law, perhaps a minimum number could be specified, but allow the question pool committee to decide exact numbers based on the radio art at the time.

Test subjects could be (only an example based on my 2 license class proposal):

Technician License:

Propagation as related to VHF/UHF communications
FM voice operating
Packet operating
Satellite operating
ATV operating
Repeater operation and administration
Basic electronic term definitions
Basic DC electricity including Ohm's Law
Basic Antennas including Yagis and Verticals
Rules and regulations as related to the license class
Basic FM transmitter block diagram
Basic FM receiver block diagram
Basic DC Power supply block diagram
Rules and regulations as related to the license class
RF Safety as related to VHF/UHF operating

General License:

Propagation as related to HF communications
CW operating
RTTY operating
More advanced antennas including various wire antennas
More electronic term definitions
Basic SSB transmitter block diagram
Basic SSB receiver block diagram
Basic power amplifier design
Rules and regulations as related to the license class
RF safety as related to HF operating
CW recognition code test (as long as international rules require)

With the 2 license structure, for certification as a Volunteer Examiner, a person would have to have a General class license and pass an additional certification test consisting of rules and regulations relating to acting as a VE and VEC.

As to the matter of re-assignment of Novice frequencies with the removal of the Novice license, I believe at this time they should remain for CW and digital modes with the possible addition of low bandwidth image modes. Modern technology allows for the selective filtering of digital and image modes allowing them to coexist with CW. Filtering of voice signals is more difficult. At some point in the future, if there is significant increase in HF voice operation as a result of any license restructuring, additional

voice frequencies could be considered. Following my proposal of 2 license classes, voice bands would be expanded by default for previous holders of Advanced and General licenses. The power limit currently existing in the Novice CW bands should be removed with the removal of the Novice license.

Re-defining license classes and test formats do not represent "dumbing down" of amateur radio. If a person is interested in advanced modes of communications they will become proficient in the theory necessary to pursue those operations. Making someone pass a test on principles of quantum physics does not guarantee that person is an expert, let alone functional in quantum physics. The testing process is to gauge the seriousness of an applicant and to be sure they know the basics (operating procedures, rules and regulations, basic equipment operation) to be functional per the terms of their license (and to not hurt themselves or others).

As to the matter of rules enforcement. The recent assignment of enforcement to the Compliance and Information Bureau appears to be a good step. Possibly some close cooperation between amateur auxiliary members and the CIB to lessen the burden of information gathering on the CIB (allowing the CIB opportunity to verify information supplied to it and then to enforce).

I am in favor of all other items of the proposal which I have not discussed for the FCC presented reasons. There is no need to take up the commission's time rehashing the commission's own comments. I am also in favor of regular review of regulations. Out of date and too much regulation can stifle progress and innovation. Let's move amateur radio into the next century.

Thank you,

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