

0.0 Introduction

I deeply appreciate the Commission allowing comments from the amateur =
population at large. The ARRL does NOT represent my views on this NPRM.=
These comments are organized into Personal Background, Summary, Detailed =
Comments and Conclusions
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1.0 Personal Background

My name is Robert G. Dennison, AB7CF, W5YI VE-17363, member Amateur Radio=
Emergency Service. I was briefly licensed in 1957 as KN6QIM failed my =
General Class Upgrade. In 1993 I reentered the amateur ranks.

2.0 Summary

Phase out the Novice and Technician Plus classes. Let the Novice band =
segments revert to General class segments. In general examiners should
be only one or more classes greater than the class to which they are =
administering tests. Phase out RACES licenses. Rigorous enforcement of =
regulations is extremely important if code standards are to be relaxed. =
Technology may ultimately provide a means of reducing associated =
administrative burden. =

While the relevance of Morse code to commercial practice is reduced. =
Morse code is a fundamental part of Amateur Radio as a hobby. It is als=
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code requirements is summarized below

CLASS	SPEED	HF PRIVILEGES
Technician	0 WPM	None
General	5 WPM	Novice+General band segments
Advanced	10 WPM	+ Advanced band segments
Extra	20 WPM	+ Extra band segments

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Signal Processing and digital modulation modes should be added to the =

elements. In general I believe increasing the difficulty of the elements=
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and question pools is to be preferred to increasing the number of
questions: =

Less administrative overhead. No increase in examination time.

3.0 Detailed Comments

Detailed comments are organized by NPRM 98-143 paragraph number. =

When a paragraph number is omitted no comment is submitted.

Paragraph 12: Phase out of Novice class - =

By all means phase out the Novice class. Issue no more =
Novice Class licenses. Remaining Novice class operators =
operate within General bands at Novice power levels until=
they pass written Elements 3(A) and 3(B) at which time th=
receive full General class privileges. Allow them use of=
Morse code anywhere in the General class bands. Reduce t=
General class code requirement to 5 WPM (See comments of =
Paragraph 24)

Paragraph 12: Disposition of the designated Novice bands - =

Except as noted above, Novice bands revert to General =
Class bands with full power and privileges.

Paragraph 13: Phase out of Technician Plus class -

By all means phase out the Technician Plus class. Issue =
more Technician Plus class licenses. Remaining Technicia=
Plus class operators operate within General bands at Novi=
power levels until they pass written Element 3(B) at whic=
time they receive full General class privileges. Allow =
them use of Morse code anywhere in the General class band=

Paragraph 14: Volunteer Examiners

Advanced class operators should be permitted to prepare a=
administer General class examinations. Likewise General =
class operators should be permitted to administer
class examinations. Question pools should only be prepar=
by Extra Class operators.

Paragraph 16: RACES Station Licenses

Concur.

Paragraph 18: Privatization of Certain Enforcement Procedures

This issue is essential to consideration of Lower CW =
proficiency standards. My regular on the air experience =
both in Technician bands and HF leaves me deeply concerne=

d. Malicious interference and foul language and political =
activities are all too common on our repeaters where it c=
an effect "only" a 30,000 sq. mile area and on MF bands =
where the effect is "only" National. On the HF bands =
malicious interference foul language and political =
activites can have an inter-national effect on Amateur =
Radio. I fear that foreign communications authority =
will take a far less lenient view of such behavior than =
the FCC and terminate foreign amateur participation. Thu=
s, =
if we are to lower or even maintain our standards, we
must increase our enforcement. The question is how, with=
= minimum impact on FCC, can we increase enforcement?
I believe identification of infractions is relatively eas=
y. =
Associating the infraction with a particular radio and a =
ey particular operator is hard. In the long term a public k=
r = encryption system based on a call sign and embedded in ou=
carrier by some means such as phase modulation may be a =
(subject solution. In the mean time relying on the OO Corps
to confirmation by the FCC) must be the answer.

Paragraph 23: ARRL Code Requirements Survey

As a respondent to the ARRL survey, I interpreted the 32%=
in favor of 20 WPM code requirement for Amateur Extra Class =
a = ringing endorsement. It is substantially more than the =
e = current Extra Class Population. The Extra Class should b=

a true privilege. I think most amateurs will find =
meaningful theory exams much more onerous and restrictive=

than a 20WPM code test.

Paragraph 24: Code Speed Requirements

GENERAL COMMENTS: While Morse code has great relevance to=

Amateur Radio as a hobby it may no longer have great =
relevance to commercial and emergency communications =
practice. Thus, some changes to Morse code standards for=
amateur radio licenses are appropriate. =

RELEVANCY OF Morse code TO AMATEUR RADIO: Morse code is =
highly relevant to Amateur Radio in at least three ways: =

1. Morse code is a highly pleasing and esthetic way to =
conduct world wide communications. It has always been a =
mechanism for creating international good will. It is th=
communication mode of choice for many of the most compete=
and active amateur operators. =

2. Demonstrated mastery of Morse code is initial evidence=
of a commitment to abide by the principles and regulation=
of international communication. =

3. As a threshold which must be surmounted to achieve =
international communication privileges, mastery of Morse =
code is less challenging than equivalent mastery of =
electronic/communication theory.

WHAT LEVELS OF PROFICIENCY AND SPEED SHOULD WE HAVE: =

Achieving Amateur Extra class privileges should be an wor=
class, outstanding achievement recognized by the entire =

s = communication community. Achieving Extra class privilege=
 = should require demonstrating the highest abilities in all=
 = aspects of radio communications. Not only should 20 WPM =
 = standard be maintained but the written elements should be=
 = strengthened and made relevant to the 21st Century. =

=
 = At one time on the air practice was the only way to =
 = achieve proficiency in Morse Code. With modern computers=
 = such is no longer the case. A high level of proficiency c=
 an be achieved with out extensive on-the-air experience. =
 = I believe that the following levels of achievement will b=

adequate:

	CLASS	SPEED	HF PRIVILEGES
	Technician	0 WPM	None
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al If the ITU elects to eliminate Morse code for Internation=
 = Communications, 5 WPM for General Class privileges can be=
 = eliminated. However to maintain the current threshold of=
 = achievement for full International privileges difficulty =
 of written elements should be increased. (See below)

SHOULD WE ADD ELEMENTS TO THE WRITTEN EXAMINATION: The =
 = privilege of world wide HF communication carries a heavy =
 = responsibility. Maintaining the current threshold of =
 = achievement is one means of measuring the willingness of =
 an applicant to accept the responsibility. My guidance is =
 = simple: The total preparation time for achieving a level =

of
re

privileges should remain constant or increase. Thus, where necessary, we should add elements or improve existing elements to at least maintain current preparation time. One scenario is as follows:

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Technician: no increase in difficulty modernize to include microwave technology

General: increase difficulty to include 6 to addition months study in digital modes and signal processing

=

Advanced: no increase in difficulty modernize to include intermediate digital modes and signal processing

=

Extra: increase in difficulty Completely Modernize to include circuit design, advanced digital modes and signal processing

If any of the code requirements are weakened below my recommendations, I strongly recommend further increasing written element technical rigor.

SHOULD WE SPECIFY THE METHOD OF EXAMINATION: The W5YI method is less challenging than the ARRL method. Quite

frankly, for that reason, I used W5YI for my extra examination. On the air, I found that I could in fact communicate adequately at 20 wpm. Let the "market place="

"

sort it out! =

ANY OTHER COMMENTS: The privilege of world wide HF = communication, carries a heavy responsibility. The = willingness to accept that responsibility should be = measured by testing requiring completion of a rigorous = study. Morse code examinations are the least = burdensome administratively and require the least = intellectual achievement of any body of study. Thus the = Morse requirement should be maintained although the Morse=

=

reduced. speed barrier to General class HF privileges can be

Paragraph 25: Disability

I My hearing disability requires that I wear hearing aids. =
s. routinely copy in excess of 30 WPM -- WITH or WITHOUT aid=
A hearing standard to be evaluated by a certified =
principles = Audiologist can easily be established. Using the

administered in Element 4B, the bandwidth required is =
he approximately 4.2 times the CW speed. For a 20 wpm test t=

n = bandwidth required is less than a 100 Hz. For example, a=
. = applicant should have a loss not exceeding 3db at ~700 Hz=

An = audiologist can easily test for that and certify yes or n=
o =

g without violation of rights to privacy. A profound hearin=
loss =

difficulty = greater than 3db at 700 hz would cause an applicant
aids. = in understanding verbal examination instructions without

Paragraph 26: Added Flexibility for VE's & VEC's
consensus = I see no problem with the current system. I believe
e = and consistency among the VEC's is most important. If th=
applicants = system changed, the amount of confusion amongst new
e = would be deterrence to obtaining privileges. I already se=
d then = students who prepare for ARRL code tests or W5YI tests an=
the = are extremely upset when taking a code element exam from
opposite VEC. =

Paragraph 27: Contents of the Written Elements
IS THE CURRENT LIST OF TOPICS ADEQUATE: See comments in =
response to Paragraph 24. Generally the list is adequate.=
However two topics need to be added: 1. Digital Signal =
Processing (DSP). No material is included on DSP. =
DSP will become a major area of experimentation in the =
future. 2. Digital mode modulation. An area of major =
experimentation will be use of DSP techniques to achieve =
new modes of modulation.
NUMBER OF QUESTONS etc.: See comments in response to =
Paragraph 24. Generally the number of questions is about=
=
Morse correct with no change in Morse code requirements. If
not code requirements change then the rigor of the questions
the total number of questions should change to keep =

hams
d.
preparation (study) time constant (Paragraph 24). Most
I talk to do not want to see the overall standards lowere=
They believe that big part of Ham Radio is the sense of =
achievement on obtaining new privileges.
EFFECT OF MODIFICATION ON EXAMINATION CONDUCT: The basic =
effect of increasing the number of questions will be to =
increase examination time. There will be a point of
diminishing returns. This could be offset by more =
difficult questions rather than more questions. The
current =
roton pools including Element 4a are usually passed by
rote =
le
memorization. I believe going to a fill-in-the-blank sty=
instead of multiple choice would achieve the desired
increase =
in the study time.

5.0 Conclusions

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