

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)
)
Amendment of Part 97 of the Commission's Rules) WT Docket No. 05-235
To Implement WRC-03 Regulations Applicable to)
Requirements for Operator Licensing in the)
Amateur Radio Service)
)

**Blanket REPLY TO COMMENTS Of Those Seeking Retention Of
Test Element 1 For The *Highest Class* License Examination**

Submitted on 11 August 2005 by:

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General

This Reply to Comments is made towards all 177 of those who desire retention of the morse code test for the so-called *highest class* amateur radio license, considered to the present Amateur Extra class. It is a refutation of many of those commenters' claims with regard to the regulatory or subjective necessity of such a test for a single class of amateur radio license.

Attachments

Appendix 1 attached is a tabulation of the visible Comments appearing on the Electronic Comment Filing System (ECFS) of the Commission during and between the dates of 20 July to 10 August, 2005. As indicated in Appendix 1, 367 Comments were each read and sorted into four categories. Of those, 177 Commenters indicated that *eliminating the code test for General and Technician class license examinations was acceptable but the Amateur Extra class should retain the code test.*

Discussion

1. Regulatory Necessity

Nowhere in Part 97, Title 47 C.F.R. does the Commission require morse code operation over and

above any other allocated mode/modulation. All allocated modes/modulations are entirely optional to use by any class amateur radio licensee with privileges to operate in any allowed frequency for that class.¹ It is not logical to require a singular manual operating skill test for the Amateur Extra license class test when all allocated modes/modulations are optional to use.² Having a requirement for a single mode manual test when all modes are optional to use can be taken as an unwarranted hardship.

2. Traditional Necessity

That *amateur radio tradition* requires an Amateur Extra to test for manual morse code skill is subjective and a somewhat artificial standard that was not in existence in 1912 and the first radio regulating agency in the United States. At that time there was no *class* of license for amateur radio licenses and only one morse code word rate. Indeed, the *only* practical communications method for radio amateurs of pre-World War One times was on-off keying of the *carrier wave* using a semi-standard Morse Code.³ The creation of amateur radio license *classes* did not happen until after World War One ended. The regulatory *need* for various classes of license is vague insofar as manual morse code skill or tested word rate is concerned; the classes themselves appeared usually as a result of lobbying efforts by private membership organizations.⁴

The number of *classes* of amateur radio licenses gradually grew from just two⁵ prior to World War Two to the involved *six* class system that existed in 1998 when the Commission released the Notice of Proposed Rulemaking (NPRM) for *Restructuring* with Comments in WT Docket 98-143. On issuance of Report and Order 99-412 in late December, 1999, the Commission reduced the number of new amateur radio classes to just *three* and all classes' morse code word rate was set to 5 words per minute. Given the continual evolution of various amateur radio license classes happening just in the experience of the Commission since 1934, it can be said that *an individual's perception of tradition depends on their length of life experience*. *Tradition* in United States amateur radio is dependent on age of individuals and their access to various media for earlier

¹ The Commission generally refers to *bands* of frequencies in Sub-Part D, Technical Standards (beginning 97.301) but the recently allocated 60 meter frequencies are referred to as *channels*. The term *frequency* (singular) is used herein in reference to both.

² That applies equally to the General and Technician license classes.

³ Practical amateur radio transmitters used damped-oscillation induced by an electric spark and the *carrier wave* for *spark transmitters* (colloquial term) was a technical joke, being wideband with considerable incidental amplitude, frequency, and phase modulation. It was, technically speaking, very simple in hardware and required no expensive vacuum tubes. While vacuum tubes were invented in 1906, it took a decade to develop them for production and lower the market costs. Morse code was an established on-off keying representation of English characters, having begun in 1844 between Baltimore, MD, and Washington, DC.

⁴ Foremost of these appear to be the American Radio Relay League or ARRL. The ARRL has never had a membership total which can be considered a majority of all United States licensed radio amateurs, therefore are not as representative of *the amateur community* as they have claimed for many years.

⁵ Actually *three* but the third class of A, B, and C types was a consideration for those who would have had to travel relatively far to an FCC Field Office to take a test. This *Conditional* class test could be given by a radio amateur, both written and manual morse code skill, with the results mailed to the Commission.

amateur radio information.

Originally, in 1912, with manual morse code being the *only means to effect communication*, a skill test in that was prudent and logical to obtain an amateur radio license. However, as radio technology improved, voice communications by amateurs was made practical and added to the regulations. After the end of World War 2 there was Radio Teleprinter (RTTY), facsimile image transmission (FAX), voice by frequency modulation, and various forms of television transmission available to the amateur through both electronics hardware and the Commission's regulations. At the same time, the word rates for the manual morse code test increased to three and divided among five of the six license classes that existed in 1998.

Tradition in United States amateur radio is, by objective historical record, rather vague since it has been constantly evolving over its 83 years of federal regulation. The *tradition* definition also depends greatly on the amateur radio organizations commemorating such in generalities of moral and ethical pronouncements.

3. Historical-Academic Necessity

Some Commenters consider federal testing to be the *only way to keep that skill alive*. The Commission is not chartered by the United States Congress to be a historical agency.⁶ Neither is the Commission chartered as an academic organization.⁷ The history of telegraphy and radiotelegraphy is sufficiently old enough and publicized enough to contain the needed information to keep such skills alive.⁸ There exist many commercial and private schools worldwide to teach (and grade) radiotelegraphy effectively enough to *pass radiotelegraphy skill* necessities. The skill of manual radiotelegraphy is needed only for actual radiotelegraphy use in amateur radio. As has been remarked previously, all allocated modes/modulations are *optional* for use by any amateur.

4. National Defense or Emergency Situation Necessity

If radiotelegraphy skills were so valuable for national defense, it would seem logical to assume that the United States military would be teaching and equipped for radiotelegraphy communications. The U.S. military is *not* engaged in radiotelegraphy communications. If emergency situations required radiotelegraphy skills to communicate, then those as well as public safety radio services would possess such skills. They do *not*. The mindset of the *doomsday scenario* has been overly inspired by several entertaining *fictional* motion pictures of recent years and a continuing small release of entertaining fictional novels, all involving amateur radio with

⁶ The Communications Act of 1934, as amended by the Telecommunications Act of 1996, define the Commission to regulate *all* United States civil radio.

⁷ There is a curious mindset among many radio amateurs that *testing* in general is indicative of expertise in whatever is being tested. This may be due to confusion with academic testing (public school, college, etc.) using tests as a means of determining what a student has learned from a particular classroom instruction. Until human instructors develop telepathy, such academic testing - and its associated grades - is the most viable way to determine the depth of classroom learning.

⁸ Land-line telegraphy, using the Morse-Vail telegraph system, began in 1844, 161 years ago. Radiotelegraphy was first used in 1896 separately in Italian and Russian locations, to demonstrate radio as a communications means. That was 109 years ago. A very common story in United States amateur radio is that of older family members teaching younger family members the skill of manual telegraphy with the *testing* and *grading* performed on a very informal basis. Substitute *mentors* not of the family for the older family members for an enlargement of that group. Telegraphy *cognition* by computer-generated familiarization, drilling, and scoring has been used for a decade in United States military intelligence intercept operator classes.

radiotelegraphy *saving the day*.⁹ The influence on audience imaginations have been good enough for at least two Commenters using the fictional film *Independence Day* as a documentary reference.

5. Necessity to Show Dedication and Commitment

That radio amateurs *must learn morse code to show dedication and commitment to the amateur community* is an oft-used moral imperative communicated by pro-radiotelegraphy adherents. That is fallacious since the *amateur community* has been divided by years over the issue of code testing for any license class. It is really a false bit of emotional baggage used to - somehow - show that radio telegraphists are somehow superior to those who do not favor radiotelegraphy. The *superiority* aspect is often used by some Amateur Extras to show that they are better humans than the *lesser-class* amateur radio hobbyists. Such self-aggrandizement does not engender respect or admiration.

6. Necessity to Demonstrate Expertise

That pre-mid-2000 Amateur Extras got their rank, status, and privileges through passing a telegraphy word rate of 20 words per minute is only an indicator that they can hear and decode (by ear) telegraphy at a word rate of 20 words per minute. Radiotelegraphy skills do *not* demonstrate any responsible knowledge of amateur radio regulations or of radio theory and operation other than the manual telegraphic apparatus. Once the telegraphy test word rate was reduced to 5 words per minute through the 2000 Restructuring, those that passed the telegraphy and written test elements were also Amateur Extras. The written test elements were largely unchanged but a word rate of one-fourth the previous rate was still acceptable to the Commission.¹⁰ That the Amateur Extra *must* demonstrate radiotelegraphy skills by federal testing but not so-called *lesser classes* has yet to be proven other than for reasons of *Necessities 1* through *5* already discussed. The *Extras* were always tested with the highest-word-rate of all amateur radio classes is no justification of maintenance of that skill.

7. Necessity to Maintain a Sense of Worth and Accomplishment

An old, often-used aphorism is *you appreciate something much more if you've worked hard for it*. The corollary apparently is that all must work very hard to pass a radiotelegraphy test in order to *appreciate* that success. By extension, knowledge and experience gained without federal testing is of lesser value to individuals. Obviously that is untrue since *appreciation* by individuals is subjective, changeable depending on the emotional makeup of individuals. That aphorism is mis-used when it becomes merely some emotional baggage derision item to toss at others thinking differently.

⁹ Ernest Lehman (deceased 2005), himself a radio amateur licensee and noted screenwriter, authored *The French Atlantic Affair* in 1977 wherein a fictional French cruise ship is hijacked at sea for ransom and is saved by a physician and radio amateur on-board who is able to communicate - by radiotelegraphy - with another amateur in California as a communications conduit to the Rand Corporation to thwart the hijacking. An entertaining novel, it was made into a less-than-stellar TV miniseries later. The motion picture *Independence Day* was released in 1996 wherein space-faring aliens take over the world but are saved largely due to a human computer hacker disturbing their sophisticated computer-communications system while humans - through *unbreakable morse code* - communicate over the world to coordinate a counter-offensive to defeat the alien invaders. The ARRL bookstore has five novels by author Cynthia Wall wherein amateur radio with/without radiotelegraphy serve the novels' hero.

¹⁰ The term *Extra Lite* has been used by some amateurs, usually in derision of such latter-day Extras.

8. Necessity to Maintain a Personal Rank-Status-Privilege

A majority of the 177 Commenters seeking retention of the telegraphy test for Amateur Extra are themselves already licensed as Amateur Extras. If they are already licensed as Amateur Extras, then retention of the telegraphy test or its elimination will not affect their operating privileges. Their rationalizations on retention of the telegraphy skill test seem less of any maintenance of the telegraphy test for amateur radio and more for their own private status. It would be wrong to satisfy such personal desires at the expense of uncountable others.

SUMMARY

There appears to be a subconscious mantra with the radio telegraphists: The telegraphy test has *always been* in the federal amateur radio tests so, therefore, *it must always exist*. Such perpetuity has no logical basis but it colors the thinking of many. *Tradition* in amateur radio seems to be focused on the standards and practices only of the lifetime of some, in ignorance of what has evolved in amateur radio in its official life of 93 years. Federally-maintained testing for a skill does not insure the perpetuity of its skill any more than written testing insures the perpetuity of intellectual knowledge. Arguments in favor of retention of a telegraphy test solely for the alleged *highest class* of amateur licensing have no logical basis for retention of telegraphy testing, only for selfish personal reasons of those who have already taken and passed such a test previously.

As an ending thought, the government exists for *all* the people, to serve them, to recognize their needs and act upon those needs for all. It should not exist solely to serve an elite few.

Thank you for your consideration in allowing Comments from private citizens on matters of regulations that affect the entire citizenry of the United States.

Leonard H. Anderson

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Life Member, Institute of Electrical and Electronic Engineers

Veteran, United States Army 1952 to 1960 (Signal Corps), Honorable Discharge 1960

General Radiotelephone (Commercial) Radio Operator license from a First Class Radiotelephone Radio Operator License first obtained in March, 1956, and kept renewed.

Former contributor to and then Associate Editor of *Ham Radio* magazine prior to 1990.

**Appendix 1 - Tally of Opinions of All Commenters on WT Docket 05-235
From 20 July 2005 Through 10 August 2005**

<u>Date</u>	<u>Total</u>	<u>Indeterminate</u>	<u>Against NPRM</u>	<u>For NPRM</u>	<u>Extra Only</u>
All July	196	4	39	137	16
1 Aug	116	0	31	78	7
2 Aug	143	5	36	84	18
3 Aug	129	2	31	73	23
4 Aug	89	2	27	52	8
5 Aug	84	3	30	40	11
8 Aug	458	34	135	221	68
9 Aug	101	3	33	45	20
10 Aug	51	3	14	28	6
Total	1367	58	376	758	177
Percentage [of 1311]			28.68	57.82	13.50

Notes:

Indeterminate column contains duplicates by same individual; *Joke* entries with obviously fictitious identities and addresses; Comments of a personal polemic nature not involving the subject Of the NPRM; undeterminable Comments due to confused use of the English language; one foreign citizen Comment.

Against column contains those individuals who are unambiguously against the NPRM.

For column contains those individuals who are unambiguously for the NPRM.

Extra Only column refers to those who find it acceptable to Eliminate all telegraphy testing for amateur license classes other Than Amateur Extra class.

Percentage numbers for three categories are based on the Total Minus the Indeterminate; i.e., $1367 - 58 = 1311$ for all Comments.

Numeric quantities are based on all entries to the Commission's Electronic Comment Filing System for days indicated as of 3 PM, 11 August 2005.

Leonard H. Anderson 11 August 2005