Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C., 20554

In the Matter of	**)**
	)
Amendment of Part 97 of the Commission's	**) WT Docket 05-235**
Rules To Implement WRC-03 Regulations	**)**
Applicable to Requirements for Operator Licenses	**) Report and Order 06-178**
in the Amateur Radio Service	**)**

Reply To Comments Of Bradley Smith of 17 April 2007 Favoring Petitions For Reconsideration by Russell D. Ward and Anthony R. Gordon

Filed electronically on 17 April 2007

GENERAL

Mr. Smith's Comment favoring the Ward and Gordon Petitions is little more than personal commentary more suited to newsgroups or Weblogs ("Blogs") than any sort of formal procedure on Amateur Radio Service regulations that affect all citizens in this nation, not just those in his Rockford, Illinois, operating area. Mr. Smith's Commentary contains a number of errors, myths, and fallacies that seem to be common to certain members of the Amateur Community and those are Replied to in this document. In the interests of fairness and formality, Mr. Smith's Comments are quoted in italics within quote marks following.

DISCUSSION

Alleged Foundation of Principles of Amateur Radio

In Mr. Smith's first paragraph, first two sentences, he writes:

> *"Regarding the elimination of the Morse Code [*test*] Element 1, I am very disappointed in the rulemaking, because by eliminating this requirement for any HF privileges, you take away the very principals [*sic*] that this hobby was founded on."*

1. Amateur Radio as a distinct activity involving radio was first formalized in regulations in 1912 by the first United States federal radio regulating agency. It's definition of "amateur radio" was similar, though not as complete, as that of the Commission's current defines in Part 97, Title 47 C.F.R. Radio as a communications means had been demonstrated in 1896 in both Italy and Russia, just 16 years before. The first vacuum tube with amplification properties had been invented in 1906, just 6 years prior; few of those were available to radio amateurs in 1912.

2. Technologically-primitive early radio, of any radio service circa 1912, was essentially "brute-force" with RF generation by damped-wave oscillation excited by a repetitive arc discharge, that earning the colloquial name of "spark."[1] Receivers were also primitive, consisting of a diode-equivalent amplitude detector device feeding

[1] Commercial and government radio services of the time could also use high-speed alternator generators of some considerable power output but only at radio frequencies less than about 150 KHz. Those were considered too costly for amateurs who relied on "spark" transmitters.

headphones. Frequency of operation was at wavelengths of "200 meters" or longer, essentially 1.5 MHz or lower. That was for **all** radio services with the known technology of the times, not just by amateur radio hobbyists.

3. With the technologically-primitive state of **all radio** circa 1912, the only possible way to effect communications was by the equally-simple on-off keying of transmitters. Since the on-off keying used in the most successful telegraphic code of the Morse-Vail Telegram Company had begun in 1844 and spread throughout the world by 1912, the so-called "Morse Code" was used in the 1896 demonstrations. It's use had matured in the 68 year period since 1844 and there were several generations of telegraphers who had been employed by telegraphic services worldwide.[2]

4. The ***foundations of the hobby*** were thus based on primitive technology, on-off keying transmission, and operation at MF, LF, and VLF of the electromagnetic spectrum, **not HF.** The movement of amateurs to HF was a forced political movement that occurred in the early 1920s, broadcasters wanting sole use of the 500 to 1,500 KHz spectrum[3].

5. The major mode of communications of radio amateurs worldwide up to the late 1920s was by on-off keying telegraphy. Since that mode was essentially the **only way** to communicate on "amateur bands" of the time, it was prudent that federal radio regulating agencies should include a telegraphy test as part of an amateur radio license examination. Practical use of voice communications modes required vacuum tube circuitry; vacuum tubes were relatively expensive for radio amateurs during most of the 1920s.

6. Standardization of the International Morse Code (as used in international telegraphy services) as the "only" Morse Code for international use happened much later than the "foundation" period of amateur radio. Dozens of different "dialects" of Morse Code were devised and in use at the end of World War II, most being specific to the native written-spoken language of different countries. International Morse Code, as defined in Part 97, Title 47 C.F.R., is based on the English-language character representation as used in international telegraphy service and standardized in that by the International Telecommunications Union (ITU). The ITU incorporated that definition in its Radio Regulations for Amateur Radio Service (popularly identified by the regulation prefix "S25"). The International Morse Code is no more "universal" a radio communications "language" than English is a "universal language."[4]

7. The original ITU Amateur Radio Regulations specified that all administrations were to test for International Morse

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[2] The original "Morse Code" was solely by numbers and Samuel F. B. Morse was having difficulty in assembling a listing of number groups representing enough English language words and phrases. According to Vail family descendants, Alfred Vail suggested a coding based on letters, numbers, and certain punctuation marks of the English language, character codes supposedly based on the frequency of use as represented by printers' type cases. The exact date of this "Morse-Vail" coding use differs depending on historical data but it was the main coding as used in the Morse-Vail Telegram Company communications service.

[3] The "radio politics" of the early 1920s is the subject of the book *200 Meters and Down*, by Clinton B. DeSoto, available from the American Radio Relay League (ARRL) book store. That book implies that radio amateurs "first discovered" the HF "bouncing off the ionosphere" for very long-distance radio communications. Many groups involved in radio at the time had already discovered it and radio amateurs in the United States were forced into HF primarily for political reasons.

[4] It is common for all native speakers of any language to presume "their" language is "universal." An observation of world languages and the number of such speakers in any almanac will show that the dialects of Chinese are the most-used. Standardization of one language is a convenience and no proof that it is actually so "universal." The International Civil Aviation Organization (ICAO) standardized on English as the standard air traffic control spoken language on radio in 1955 because **most** of the civil aviation aircraft pilots of 1955 were native to English.

Code skill in both receiving and sending. This was later modified to only for administrations' license privileges allowing below 30 MHz operation. The Commission, after the creation of Privatized Testing of radio operator licenses, allowed "cognition only" testing for Morse Code.[5] Finally, at World Radio Conference of 2003 (WRC-03), S25 was nearly entirely rewritten and administrations were given the option to test or not to test for any Morse Code skill, apparently under the lobbying pressure of the International Amateur Radio Union (IARU). The ARRL did not support that ITU Radio Regulation S25 rewrite in 2003 and refused to commit themselves one way or the other on Morse Code testing until recently with the release of Memorandum Report and Order 06-178.

8. **Founding principles** can only be implied as pertaining to the 1896 to 1912 period. The **principles** of United States Amateur Radio has been one of near-constant change, modification, growth, revision judging by all the historical data sources, not just one national membership organization. It has been driven by changes in technological arts common to all electronics, changes that are spectacular in its constant, sometimes "quantum-level jumping" advancement in just 111 years.

Mr. Smith begins his Comment second paragraph with these sentences:

> *"By this change [*R&O 06-178*], the FCC has only proven an increase in the number of operators on the HF bands. It is a quantity vs. quality approach that has already proven to have major repercussions, as well as an increase in needed FCC enforcement."*

9. I cannot understand how the Commission *"has proven an increase."* The task of the Commission is to regulate all civil radio services and mitigate interference between them and all other radio services. The Commission provides daily and weekly public-access databases of all radio licensees. It is up to other service providers such as Hamdata (www.hamdata.com) or QRZ (www.qrz.com) to *"prove"* various detailed aspects of license classes, new and expired licensees, regional groupings, etc., through specific sorting. They do this using the Commission's database.

10. It should be obvious that the first month of United States Amateur Radio Service licensee changes after 22 February 2007 resulted in many "upgrades." The number of **new** licensees is barely keeping up with the number of licensee expirations. The peak number of Amateur Radio Service licensees in the United States occurred on July, 2003, and has been minutely decreasing in a steady trend ever since. That Technician class licensees "upgrade" to General class or General class "upgrade" to Amateur Extra only proves that class changes happen. **Proving** any "*increase on HF"* would require the rather complex monitoring and recording facilities such as by the National Technical Information Service (NTIS) spectrum-use monitors. Supposition and conjecture by individuals is subjective and not scientific or evidentiary.

11. As far as *"enforcement"* is concerned, that must begin with true observation and recording of the fact, then reporting of that with appropriate evidence, to the Commission's Enforcement Bureau. Instructions on that are provided on the Commission's website. One does not need a *Blacks*[6] to understand that hearsay without substantive proof of violations remains just hearsay.

In Mr. Smith's third paragraph, part of his first sentence is:

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[5] At the time of that interpretation of testing needs, ITU S25.5 was in force requiring administrations to test "by hand and by ear" (both sending and receiving). That and the so-called Farnsworth higher inter-character rate while characters were sent at the specified rate, have been a source of great contention on discussion newsgroups for many years.

[6] *Blacks Law Dictionary*, a common reference book for attorneys.

"I've also noticed a greater deal of 'CB slang' being used on HF..."

12. The Commission does not, nor has it since creation in 1934, defined much **specific jargon** to be used in operation on the HF bands or any other bands above HF. It does not do so for Citizens Band Radio Service regulated in Part 95, Title 47 C.F.R. "Slang" is a synonym for colloquial expressions and colloquial expressions exist in all walks of life about all activities and involving all social mores. That one kind of "slang" is "more correct" and another is so purely subjective that it is impossible to quantify, to detail for regulatory purposes. Such insistence on "correct" "slang" is to self-identify as one motivated by human territorial imperative, one who claims much more knowledge and control over use, all without authority to do so.

Mr. Smith writes in his fourth paragraph, first sentence:

"I feel, as do many others I know, a result of the last restructuring era on April 15, 2000."

13. Mr. Smith needs to be reminded that the subject of Commentary are two Petitions for Reconsideration of Docket 05-235 and its effect on Memorandum Report and Order 06-178. It is **not about** Docket 98-143 that eventually resulted in Memorandum Report and Order 99-412 released in December, 1999 ["restructuring"].

Mr. Smith ends his fourth paragraph with the following:

"...but after having reviewed the new question pool for the Tech. license, I could've passed it blindfolded in the 3rd grade. Where did all the technical skills & knowledge go? Clearly, it went away after this happened."

14. While Mr. Smith may or may not be a gifted human being, it is impossible to pass a **written test** without being able to **see** the test questions and answer choices. To the best of my knowledge, Volunteer Examiner test teams do not use blindfolds nor are such even mentioned in United States Amateur Radio Service regulations.

15. Within the Amateur Radio Service regulations is a proviso that Volunteer Examiners must provide assistance for handicapped license applicants during test sessions. While I have seen no direct evidence of such use during my test session on 25 February 2007[7], no doubt there are question pools available in Braille for the sight handicapped or other ways to present Question Pool material no requiring sight.

16. Having been involved in radio communications on LF, MF, HF, VHF, UHF, and microwave bands since 1953 and engaged as an electronics design engineer in the aerospace industry since 1960 to present, and having carefully studied all the Question Pools of the National Conference of Volunteer Examiner Coordinators (NCVEC) applicable to the year 2007, and having been a hobbyist in electronics since 1947 until present, and having known a number of licensed radio amateurs of all classes all that time, I find absolutely no fault with the NCVEC's Question Pool content in regard to either the Technician class, General class, or Amateur Extra class written tests. In fact, I personally admire some of the test question constructions' design to make the applicant pay very special attention to the subject of such questions.

17. As an especial praise for the NCVEC, the number of questions in the Question Pool for each test element is above the minimum of 10 times the number of required questions. The number of questions in test element 4 is slightly more than 16 times the minimum. The Commission does not specify a maximum in the Question Pool, only a minimum.

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[7] Took and passed all three test elements to qualify for an Amateur Extra class license, subsequently granted by the Commission on 7 March 2007.

Having more than the minimum number of questions decreases the probability that someone could "just memorize the questions and pass," a mythological bit of absurdity often used by the already-licensed radio amateurs.

18. Mr. Smith's postal address is given as Rockford, Illinois. Having been born, raised, and schooled in the Rockford, Illinois community through grade 12, I will question anyone from there who claims to have received well-above-average technological education at grade 3 **in** grade 3.

Mr. Smith closes his disguised soliloquy with the following, last paragraph:

> *"Regardless, I do oppose the elimination of te Element 1 CW requirement as it indeed did reduce, not eliminate the amount if [*sic*] 'riff raff' on the HF bands."*

19. That is such an egregious statement as to be ludicrous. Use of the label *"riff raff"* as a pejorative of those not favoring Mr. Smith's view of Amateur Radio service marks him as an elitist, one of closed mind who has "bought into" some concept of Amateur Radio as it was practiced before his time...a minority viewpoint among the Amateur Community. The Commission serves all the citizens of the United States, not some minority group that demands others do it "their way." In my opinion the Commission does this fairly and equitably.

20. Docket 05-235 was released to public view on 20 July 2005 and its official Reply to Comment period closed on 14 November 2005. There was ample time for any citizen to Comment on it then. Some 3,786 did within the official Comment and Reply to Comments period.[8] The Commission considered those Comments and Replies to Comments and eventually released information on a Memorandum Report and Order 06-178 on 15 December 2006, approximately a year after the official close of all public comments. The lawful change in United States Amateur Radio regulations regarding the International Morse Code test elimination took place on 23 February 2007.

21. On 20 February 2007, Mr. Russell D. Ward, Jr. submitted a Petition For Reconsideration of Docket 05-235. Mr. Anthony R. Gordon submitted another Petition For Reconsideration of Docket 05-235. Approximately 13 months elapsed between the official end of comments and Mr. Ward's petition, a year and a month of time where someone could have legally requested a Petition For Reconsideration. No one appears to have done so except for Mr. Ward and Mr. Gordon at the last possible moment.. The two Petitions can only be considered as some sort of delaying tactics to forestall the inevitable, a lawful change to United States Amateur Radio regulations done using democratic principles in government, giving all interested citizens a chance to make their views heard and seen within a publicized and timely official comment period.

22. If there be "riff raff" in United States Amateur Radio, then I submit that it is **not** those who wished to eliminate the Morse Code test but rather all those self-righteous elitists who demand that others follow their minority viewpoints and add to the insult various amounts of pejoratives against those who think more universally about the future of amateur radio, an openness, an opportunity to expand and grow, both in numbers and intellectual content. The Commission does, and should, serve all the citizens of this great nation, not just a minority who cannot accept change. It is my opinion that the Commission does that quite well.

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[8] Having read each and every Comment, Reply to Comment, including some (apparent) law school students "live exercises" in law on Docket 05-235, I made a statistical tabulation of opinions (and others things) that was uploaded to the Commission's ECFS on 25 November 2005. That Exhibit was submitted outside of the comment period, intended solely as an aid for any or all interested in that part of Amateur Radio regulations.

SUMMARY

The preceding was a number of replies to a singular Comment by one individual citizen done not because we share a common geographic region. Mr. Smith repeats a number of urban myths about Amateur Radio, adds some borderline insults of others, and ventures rather far from the subject at hand: Two Petitions For Reconsideration on a Docket which has already had a lengthy publicly-open Comment period. The two Petitions do nothing for the future of United States Amateur Radio. They and the elitist, old-time opinions of a few are only delaying the inevitable, change towards progress and a more open future for a technologically-fascinating radio hobby.

The Commission acts fairly by presenting the two Petitions to halt all previous comments and actions turning back to two years ago; that irritates and annoys many who can accept change and want to go forward, not back. That is still good and proper. The majority of us can still go forward and accept change, expand, and learn.

None of us can hold back the passage of time. We only "turn the clock back" (an hour) at the end of Daylight Savings. We should not turn it all the way back to the Standards and Practices of some long-past time and force all to do as those ancients did.

I thank the Commission for doing its proper regulatory job for all citizens of the United States.

Very sincerely,

Leonard H. Anderson
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Amateur Extra class Amateur Radio Service licensee AF6AY
First Class Radiotelephone (Commercial) license granted 1956, kept renewed through change to GROL
Life Member, Institute for Electrical and Electronic Engineers, a Professional Association
Member, American Radio Relay League
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