

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

In the Matter of)	
)	RM-10867
Amendment of Part 97 of the Commission's)	
Rules Governing the Amateur Radio Service to)	RM-10868
Implement Changes to Article 25 of the)	
International Radio Regulation Adopted at the)	RM-10870
2003 World Radiocommunication Conference)	

Via the ECFS

Reply to Comments of Mark M. Oring Made on 19 April 2004

by Leonard H. Anderson

Mr. Oring's Comment is seemingly concerned with a very strong maintenance of *status quo* in United States Amateur Radio. He also restates several misconceptions about the Commission's Amateur Radio license test and the general nature of Amateur Radio as if it were something other than a voluntary avocational radio activity. I will address those statements in this Reply to Comments.

Please allow me to state that I am a retired electronics design engineer with no vested interest in any professional or amateur radio activity nor any educational institution nor with any of those who have commented on these three Petitions for Rule Making. All of the following comments are those of a private citizen fortunate to experience a half century in the radio-electronics industry and military of the United States, that including radio communications.

A. Allegations That Telegraphy Testing Is *Not An Issue*

1. Mr. Oring states, *Since the WRC [World Radio Conference of 2003] decision, the pro-code vs. no-code dispute has intensified to the point where both camps are at each other's throats. Such bitterness and resentment is counterproductive to amateur radio. This dispute has nothing to do with Morse code, as the no-coders claim. Neither does it have to do with license standards.*¹ There seems to be some considerable personal bias expressed by Mr. Oring along with a belief that telegraphy skills must, absolutely, be retained in United States Amateur Radio licensing. It is useful to observe the present status of all United States Amateur Radio license classes.

¹ Mr. Oring at 2nd paragraph.

Number of Individual U.S. Amateur Radio Licensees and Class Percentages as of 20 April²

Technician class	283,232	(39.0 %)	
Technician Plus class	66,965	(9.2 %)	
Novice class	38,650	(5.3 %)	
General class	146,196	(20.1 %)	
Advanced class	84,431	(11.6 %)	
Amateur Extra class	107,458	(14.8 %)	
Total, Individual	726,932	(100.0%)	[less 8,981 club licenses]
Total, Individual, 1 Year ago	727,430		[less 8,406 club licenses]
New Amateurs, Last 12 Months	19,381		

2. Given that the total number of individual licensees dropped slightly in one year, but the no-code-test Technician class continues to increase, it should be evident that more **new** amateurs are entering via the Technician class. That no-code-test Technician class has grown in 14 years from nothing to be within one percentage point of making up two-fifths of all amateur licensees now. It can be surmised that United States Amateur Radio individual licensees would have **dropped drastically** in total numbers over 14 years had there not been a no-code-test Technician class license. On conjecture, had all else remained the same but the Technician class never existed, the total number of individual licensees could have been only 443 thousand now instead of 726 thousand. In itself, that should demonstrate some vitality in Amateur Radio largely caused by elimination of the telegraphy skill test for any license.

3. In the same paragraph, Mr. Oring states, “*For at least the past two decades, the trend has been to lower the standards for obtaining an amateur license in the name of increasing the amount of licensed hams and revitalizing the amateur service. Every effort along these lines has failed to yield the intended result.*”³ I submit that conclusion is erroneous in regard to eliminating the telegraphy test for one license class that has become the most populous in United States Amateur Radio of today. The former Novice class, the original intended *entry-level* class, has experienced a continuous decline in numbers over greater than a decade despite originally being renewable indefinitely. Mr. Oring should concede that the former Novice class test requirements were **less** strenuous than the no-code-test Technician class. However, Mr. Oring insists, in the beginning of his paragraph cited, that *it has nothing to do with license standards*, but, at the end of the paragraph he has opposed himself and implies it **does** have to do with licensing standards.

² Data from www.hamdata.com posted there at 1333 UTC, 20 April 2004.

³ Mr. Oring, 2nd paragraph.

B. It Is Imperative That All Amateurs Upgrade?

4. Mr. Oring states, in his third paragraph, “*The liberal privileges offered to those entering the amateur service, along with the wholesale giveaway of privileges granted to existing Technician class licensees removes most, if not all incentive to work toward an upgrade.*” Mr. Oring should realize that United States Amateur Radio has **always** been a voluntary activity done without pecuniary interest. The naming *amateur* itself defines the activity done without monetary profit. Since the Commission has also added the proviso *voluntary*, there is no need to allegedly **work** towards anything.

5. United States Amateur Radio is **not** a *service* in the sense of a military service, nor an arm or agency of the United States government, as in *government service*.⁴ Amateur radio is not a union, guild, or trade-craft where all within are graded and classified according to their expertise, skill. To imply that it is a *service* as in a professional public safety service or any other *service to the people* is simply self-glorification. Amateur Radio is *de facto*, if not precisely *de jure*, a **hobby**.

6. Throughout the time from inception of Amateur Radio as a regulated group in 1912 to the present, the privileges granted to various classifications of amateurs has varied considerably. Some of the privileges were necessitated by political actions, the physical laws governing radio signal generation, and requests by individuals and membership groups. Indeed, the classifications themselves were done largely by the first and third reasons. Those all varied over the 92 year span of radio amateurism. No one time period can be considered *correct* such that it *must* apply to the future.

7. **Hobbies** need not be defined in the rigid ways of *apprentice-journeyman-master* of unions and guilds. Hobbies are not professional work activities and hobbyists need not have professional classifications. Hobbies are voluntary activities, done for recreation and enjoyment. Anyone who demands *professionalism* in an *amateur* activity is confused, perhaps by self-glorification.

8. **Voluntary** hobby activities need not have rigid, inflexible, complex rules as if they were guilds or unions or trade-crafts of established professional skills. The principle regulations should be defined by necessity of laws of physics and practical radio equipment plus the need for mitigation with other radio services. Anything that follows is largely arbitrary and of a social context.

9. Social contexts in the relatively recent past had established the six-layered class distinction license structure which became the obvious driver to *upgrade* to the highest class for not other reason than to avoid denigration by others of being in a *lesser class*. There was no point in gaining proficiency in radiotelegraphy as a technical skill when all other radio services had abandoned radiotelegraphy as a communications medium. The Commission rightly saw the verity of that in the 2000 *Restructuring*, enumerating some of its reasons in Report and Order 99-412 in regards to lowering

⁴ The term *service* as given in Title 47 C.F.R. is a regulatory term denoting a type and kind of radio activity.

all telegraphy test rates to a single low maximum. Indeed, the Commission saw that the convoluted class distinction of the previous six-layer licensing system to be a disadvantage to Amateur Radio itself and cut the number of new license classes possible in half.

10. It is axiomatic in human behavior that many feel compelled to *be better than others*. One way to insure that is to establish legislation which actually *defines* such by law. Hence, the long-term lobbying of the Commission which resulted in the previous six-layer class-distinction license system. If there be *bitterness and resentment* in United States Amateur Radio, then I submit it exists mainly in the long-tenured licensees who *upgraded* under the *old* system. Their cherished *better than others* legislation partly evaporated with the reduction of classes. Their *belief system* demanded that all *must upgrade* or be considered somehow inferior.⁵ That is the antithesis of a fraternal following.⁶

11. Any voluntary avocational activity should be given as much freedom to practice its activity as it desires within practical bounds. The Commission must insure the practicability of regulations. Those who wish to *be better than others* **will upgrade** regardless of regulation type or kind. Those are not in the fraternalism that is supposed to be Amateur Radio.

C. Amateur Standards Of Work Must Be Preserved, But For Whom And For What?

12. Mr. Oring consistently stresses a preservation of *standards* and of *work*. He states, “Lowering licensing standards and granting free upgrades to those who didn’t put forth any work to learn new material and take an exam to demonstrate learning new material will serve to adversely affect the amateur service by lowering the competency level and the level of technical knowledge of those who are licensed in the amateur service...” [sentence terminated] Firstly, United States Amateur Radio is a voluntary avocational activity and, since it is not a professional one, does not require **work** per se. Secondly, the *standards* are insufficiently defined, but that asks a secondary question, is Amateur Radio a profession that requires a rigid, inflexible *standards set*, or is that just some subjective idealization of some?

13. The Commission is not chartered by legislation as an educational institution. Amateur Radio licenses are regulatory tools for the Commission’s purposes, not certificates of learning either

⁵ I dare not use the term *brainwashing* there, though the long-term influences of singular membership organizations should be casually obvious. The psychological motivation tools of selling products apply equally well to selling abstract ideas and political ideologies. Our society now recognizes that product selling uses such motivational tools but the other two areas are still in societal denial. Given only one membership organization which publishes most of the available amateur information, a *belief system* has been forged in the minds of many. The *looking down on inferiors* behavior of many *maximally-upgraded* radio amateurs is sometimes palpable in social groupings

⁶ The singular national membership organization for Amateur Radio assumes a fraternal role in the dissemination of all information regarding United States Amateur Radio. That *we are all together* fraternal unity disappears with its constant reminders to *upgrade*, coincidentally with the aid of product purchases that are supposed to enable easier *upgrades*.

manual skills or intellectual skills. Unfortunately, there is a widespread myth among United States radio amateurs that a license is a diploma or equivalent used to show some level of *expertise* yet the only proof of accomplishment is the successful completion of a particular class examination. That myth belief is so widespread and rooted in the collective amateur psyche that it may never be corrected.

14. *Standards* in licensing is another myth, or a highly irregular misuse of the term. What was once applicable in 1923 was not applicable for 1933 due to the political demands during that decade to move all amateur operating frequencies *below 200 meters wavelength*.⁷ All throughout the history of regulated Amateur Radio in the United States, there have been changes in amateur regulations. *Standards* evolve and are not fixed to any particular era by some imagined divine providence.

15. Industry *standards* are voluntarily developed for the benefits of manufacturability, applicability, and ease of repair and replacement. Such standards resolve what could be a chaos of different components for any given function, more as a *commonality of purpose* than as some unchanging absolute. There are hundreds of such standards in the general electronics area covering everything from fasteners to color codes to digital interface formats to semiconductor enclosures. As the state of the electronics art changes, some industry standards become little used and new standards take their place. Such is evolution.

16. *Standards in licensing*, as it applies to Amateur Radio licensing, is primarily for the Commission to decide for its purposes of regulating and mitigating all of United States civil radio.⁸ Such would be a *standard within the Commission* and would be subject to demands not necessarily confined to just Amateur Radio. However, some feel that *standards in licensing* must be maintained since those who achieved their license privileges wish to keep those standards. Replacement of such standards by newer, different standards may represent a lessening in their perceived self-worth.⁹

17. Since Amateur Radio licenses are not academic or skill achievement certificates and that Amateur Radio is a voluntary avocational activity instead of a professional trade-craft, it seems pointless for anyone to argue that *standards in licensing* must remain inviolate. That is exacerbated by some who insist that such standards remain fixed at the level of the insistent individual's desires.

⁷ A 200 meter wavelength is approximately 1.5 MHz. The movement to force amateurs to that and higher frequencies in the middle of that decade was deemed necessary to establish the first broadcasting service band. As a result, amateurs ultimately *discovered* the joys of HF propagation via ionospheric reflection and the ability to *work* (communicate with) stations around the globe. Operating standards differ markedly between MF and HF due to those propagation differences.

⁸ Mitigation must include the entirety of radio users including government and military plus continental and international radio users. The latter is visible as all the tabulation columns and notations in the huge frequency allocation chart of §2.106.

⁹ That is allied with the intrinsic need to *be better than others*, to show some degree of superiority. Such is a most subjective desire which does not take into account the wishes of others involved in the same activity.

18. The word *work* is bandied about all too freely in Amateur Radio. To *work a station* is in the amateur vernacular from older times, meaning to communicate with a station. In older times, using rather primitive forms of radio, communication was frequently a struggle, an effort similar to work done in regular employment. However, *working* for an *upgrade*, or even just to improve oneself in skills and knowledge of radio, is very prone to rather human gross exaggeration.

19. Effort and struggle to improve one's knowledge or skills has no direct relationship to any external compensation. It is subjective and highly variable. Some humans have good aptitudes for certain skills while others with low aptitudes must exercise considerable effort and struggle and may never reach a level of expertise.¹⁰ Reward for achievement of personal status improvement should come from within, not without. This is especially true for a voluntary avocational activity such as Amateur Radio.

20. Claims of amateurs *working hard* for an *upgrade*, towards a test having no more than 50 questions, seems specious to anyone who has spent a career in electronics and radio. Radio as a communications medium is only 108 years old, electronics as a whole slightly older. The state of the art of **all** electronics is constantly changing and those who remain involved in electronics, including the subset of it called radio, must remain on a constant self-upgrade program just to keep up with the pace of advancements. The entirety of electronics can be totally fascinating to many and a constant attention to new techniques, methods, devices is rather a pleasure far from any **work**.¹¹

21. For whom should all this *work* be done? Mr. Oring does not specify this. Logically, it would seem that such *work* is for the self, a personal skill and knowledge improvement. However, the strong implication is that *work must be done to please those already licensed in Amateur Radio*. That is not a legal requirement. However, the imperative is clear that long-tenured amateurs' desires must be obeyed.¹² They are *there* and have staked out their *turf* and now demand federal protection from interlopers. They feel *owed* for their long tenure of alleged *work* in a voluntary avocation.

¹⁰ A case in point is manual telegraphy skills. Some gifted individuals can achieve high rates with only nominal effort of practice. Others may never achieve anything but rudimentary skill levels. Those who have achieved high rates wish to be rewarded for their apparently innate *superiority* in a singular communications mode and thus consider themselves *due* privileges rather unrelated to such skills.

¹¹ The sense of that is also very subjective. However, the fascination is almost intrinsic considering the overall impact of improved communications on our modern society. This is certainly so in this commenter's lifetime of 71 years that spans the Second World War and the transition from vacuum tubes to semiconductors and on into the *mainframe-on-a-desk* of today's personal computers. Today, one in three Americans has a cellular telephone subscription, one in five households have some Internet access, live television communications is possible from nearly every part of the globe. None of those three existed a half century ago when this commenter was assigned to a large military HF communications station while in the U.S. Army. What was exciting then remains stronger and more vibrant today with each unfolding of new developments and improvements to the quality of life.

¹² The human trait of *territorial imperative* is all too common in all human societies, everything from divinely-ordained royalty to the *turf* graffiti spray-paintings of neighborhood gangs.

22. In his 8th paragraph, Mr. Oring states, “*I believe very firmly that amateur radio licenses need to be worked for and earned by those wishing to obtain them. One who works for the license will respect and cherish their amateur privileges more than [sic] one who does little or no work to obtain the license and the privileges that the license grants.*” An Amateur Radio license is not a marriage contract any more than Amateur Radio is a professional trade-craft. Amateur Radio is a voluntary avocational activity done for recreation, for personal enjoyment. Mr. Oring tends to exaggerate the activity beyond reasonable bounds.

23. Mr. Oring has not established in detail just who is going to be the judgmental body to rule on the *work* aspect. It is not the Commission to so rule beyond the grant of an Amateur Radio license and enforcement of regulations. It is not the so-called *amateur community* which has no cohesive structure nor common opinion nor enforcement capability.¹³ The *work* aspect is subjective and not ruled by any divine covenant.

24. The *earning* aspect of Mr. Oring’s statement is also subjective, an extension of *territorial imperative* that blurs the distinctions between a voluntary avocational activity and a professional trade-craft. Tenure in an avocation establishes **nothing** in regards to *ownership* of an activity.

D. The Sky Shall Fall If Extensive Restructuring Is Done?

25. Mr. Oring’s 9th paragraph states, “*I fear that the kind of wholesale giveaway and reduction of standards that RM-10867 and RM-10870 propose will cause the deterioration of the amateur service not unlike what resulted with the Citizen’s [sic] Radio Service.*” The original Citizens Band was created in 1958.¹⁴ In that 46-year period, the first decade saw no great increase in the number of *CB* users in the old 11 meter band. Considerable resentment by some amateurs of the late 1950s and early 1960s over the loss of *their* 11 meter band led to the creation of exaggeration and manufactured claims of alleged impropriety that linger four decades later. The availability of inexpensive *CB* transceivers in the late 1960s resulted in a veritable explosion of *CB* use along with the cessation of licensing. In 1995 a National Telecommunications and Information Administration (NTIA) Special report estimated that a million *CB* transceivers were sold annually with about 5

¹³ That opinions differ in the *amateur community* is well established by the wide variety of thousands of Comments to 18 Petitions of 2003 to 2004. No one grouping, national to small, represents any true opinion applicable to all licensees.

¹⁴ What is known as Citizens Band of today was originally *Class D* of the four-class Citizens Radio Service, Class A and B already established on UHF. Only 23 channels were allocated, mostly within the older 11 meter amateur band reassigned to Class C (radio-control of models) and Class D (voice communications) in HF. While licensing was required for *CB*, no test was ever required to obtain such a license. The licensing was eventually dropped and the number of available channels increased from 23 to 40. Class A and B were eventually deallocated. Class C eventually became a part of the Radio Control Radio Service and is regulated by Part 95. A minor international license nomenclature dispute of the original 11Wnnnn designation led to license nomenclature changing to the Kxnnnnn format prior to elimination of licensing altogether.

million users in the United States.¹⁵ All those users are crammed into only 40 channel allocations. The major use of *CB*, by casual observation of listening, is on highways, principally by the trucking industry but also by recreational vehicles of many kinds. It should be noted that the NTIA did not mention any alleged *deterioration* of *CB* some 37 years after its beginning. Regulation of this Part 95 radio service is not really germane to any discussion of Amateur Radio regulations.

26. Mr. Oring refers to an alleged *wholesale giveaway* should either RM-10867 or RM-10870 be adopted into amateur regulations. This is apparently from the proposals to automatically transfer Technician and Technician Plus classes into the General class category. As of 20 April 2004 statistics, that would mean a movement of 350,197 to increase the General class to 496,393 or 68.3 percent of all licensees.¹⁶ That would more than triple the present number of General class licensees. The added number of licensees able to access HF amateur bands would not suddenly appear on HF until they had acquired radio equipment and antennas to operate there.

27. Mr. Oring's dissatisfaction with this alleged giveaway is apparently due to the existing Technician and Technician Plus class licensees *never having taken a test for HF privileges*, therefore they should be kept in some VHF and higher band segregation? If Mr. Oring would bother to refer to past history in amateur matters, the extra HF bands allocated to amateurs as a result of the 1979 World Administrative Radio Conference (WARC-79) did not require any existing amateur licensees to retest in order to use them. With the recent allocation of five 60 meter channels to United States amateurs, there was no requirement for anyone to take more tests in order to use those. There are no specific physical laws that require special license testing to *use* bands on HF.¹⁷

28. If the Technician and Technician Plus class licensees would be required to *retest* in the future according to written test elements as they are now, then that presents an increased workload for the Commission and the National Council of Volunteer Examiner Coordinators (NCVEC). The VEC would have to schedule retesting for over 40 percent of amateur licensees and the Commission would have to require maintenance of existing question pools. There would have to be a period of time set aside other than the normal 10-year plus 2-year grace period for renewals since all could not retest at the same time. A *four-class* system would have to exist if a simple *entry-level* license class were created. That is not the class simplification to three levels desired by either RM-10867 or RM-10870.

29. I submit that Mr. Oring's dissatisfaction with alleged *giveaways* is due to other, personal reasons coupled with a clinging to *past* regulations and standards. To Mr. Oring's personal thinking,

¹⁵ NTIA Special Publication 95-33 *Survey of Rural Information Infrastructure Technologies*, page 4-8.

¹⁶ Tabulation on page 2 of this Reply to Comments.

¹⁷ Few radio services other than Amateur Radio require **any** license to use and operate on HF bands. There is more than adequate information in Amateur Radio literature to guide all newcomers to HF *accepted operating procedure* as well as propagation characteristics, all without any need for further testing or license requalification.

amateur HF operations might be such to change conditions that he favors out of his *familiarity with them now*. The sky will not fall nor will Amateur Radio cease to exist due to extraordinary restructuring of regulations.

E. Must A Living Museum Of Telegraphy Skills Be Kept Via License Testing?

30. In Mr. Oring's 12th paragraph he states, "*The Commission's decision on this matter [telegraphy testing] should not be based on popular opinion (the opinion of those who do not wish to learn Morse code), or the decisions of other countries. The Commission's decision should be based on what is best for the Amateur Radio Service in the United States.*" In that latter case, I submit that elimination of the telegraphy test **is** in the best interest of United States amateurs of now and in the future. The Commission did not consider telegraphy skill testing to be necessary for its granting of licenses in 1990 nor 1999, but was constrained to keep it due to International Telecommunications Union (ITU) Radio Regulation S25.5 at those times.¹⁸ The Commission has not required any amateur licensee to operate in telegraphy mode over and above any other allocated mode in over a decade. There is no regulatory reason to keep the license examination telegraphy test.

31. The alleged efficacy of radio telegraphy has been grossly exaggerated by those who favor telegraphy, for whatever reason. The fact of every other radio service, including public safety radio services, having dropped manual telegraphy for communications should not be ignored. The United States military does not use manual telegraphy for communications, not even for search and rescue missions. There is **no** need to keep any sort of *pool of trained telegraphers* through Amateur Radio licensing tests to serve national needs.

32. That manual telegraphy skills are revered and venerated among a minority in United States Amateur Radio based on some nebulous reasons of *tradition* or even *respect* is not a valid one to impose telegraphy testing on all who wish to enter or advance within Amateur Radio today. To quote from John D. Hays' Comment of 12 April 2004 on all four recent Petitions, "***Morse code is part of the history of communications and there will probably always be those who find pleasure in the knowledge and skill of Morse Code. It should survive out of a love for and the utility of the mode and not because it is a required examination element.***" Manual telegraphy testing should be dropped entire. It is time for it to go.

¹⁸ Proceedings 90-53 in 1990 and Report and Order 99-412 at the end of 1999. ITU S25.5 required all member nations to administer a manual telegraphy test *to send by hand and receive by ear* for any amateur license having operating privileges below 30 MHz. WRC-03 in July 2003 revised that and several other Radio Regulations giving all nations the individual option for telegraphy skill testing.

Summary

Mr. Oring's Comments are once again found inappropriate and based on old standards and practices in United States Amateur Radio.¹⁹ Amateur Radio should not be shackled to the desires of the few long-tenured amateurs who cling to the past. It belongs to the future and countless citizens not yet enjoying that voluntary avocational activity. RM-10870 represents forward, independent thinking with a look towards the future by those long involved with Amateur Radio. The Commission has made a number of options available to radio amateurs in the recent past and it should continue to do so for the benefit of all. Option is not a failure.

I thank the Commission for allowing an independent citizen's viewpoint to be heard and with the ability to share a half century's accumulation of experience and knowledge in radio and electronics at work and in hobbyist activities.

Respectfully submitted this 21st day of April, 2004,

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¹⁹ Mark M. Oring is the principal author of RM-10868. That Petition for Rule Making has already been remarked upon by this commenter.