

Before the FEDERAL COMMUNICATIONS COMMISSION

IN THE MATTER OF:

1998 Biennial Regulatory)
Review, Part 97.1, restructuring) WT DOCKET Nr. 98-143
and/or streamlining of the)
Amateur Radio Service)

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INTRODUCTION

The Commission's review to *streamline testing* in and/or *restructure* the Amateur Radio Service is the first since c. 1965 to draw *widespread public comment* in addressing the purpose and scope of the Service in formal fashion. As such, the crux of this proceeding involves a Commission ruling that essentially will:

(1) determine that the traditional purpose and scope of the Amateur Radio Service will be viable as an educational, technically-based hobby into the next century, or

(2) establish minimal requirements for entry more appropriate to a personal radio service

with final decision reflected in unambiguous language in Part 97.1 of the Communications Act of 1934. An option as per (1) to ensure the traditional structure of the Service may ultimately require support from other branches of government such as Congress in the form of legislation that aids in the Commission's goals.

TESTING/RESTRUCTURING OPTIONS

(a) Restoring the Service

Given the long-recognized loss of technical expertise and knowledge of basic electronics among ham radio enthusiasts (e.g., FCC Docket 15928), which persists due to continued easing of requirements into the Service, decision to effectively restore Amateur Radio to a technically-based learning ground mandates a restoring of traditional examination *standards*. In which case, the Commission will find it in the public interest to, first, support general legislation to:

Restore Traditional Study Guides

The publishing of so-called "exact question-and-answer study guides" is not in the public

interest. More clearly, restoring the Service as a technically-based hobby mandates elimination of study (Q&A) guides *that contain the exact technical questions that may be found on an actual exam.* This ruling would apply to *technical* questions in order to require that the applicant demonstrate knowledge of basic electronics; rules and regulations must of necessity be rote-memorized. *A-priori* knowledge of exact technical questions that may appear, on the other hand, is entirely unacceptable for a Service defined as a technical learning ground. Solution: A return to study guides containing a syllabus of test questions of *similar*, as opposed to exact, nature to those that would be found on an actual exam, will serve as a thoroughly sufficient study tool and would best serve the public interest.

Modifying current policy would today require an exemption under the Freedom of Information Act (FOIA) to correct the misapplied notion that applicants have a basic right under the U.S. Constitution to know beforehand the exact answers to all technical questions that may be posed on an Amateur exam. The FOIA as applied to Amateur Radio is, moreover, clearly in conflict with the Service's educational purpose as a technically based hobby. An arrangement that includes available exact question-and-answer pools one would find on an actual exam, with respect to the *technical* understanding of basic electronics and the radio art, is no longer an "exam." It is of no educational value from the standpoint of mastering fundamental *technical* material, the method is not accepted in institutions of technical learning across the country, and no true educator would sanction such a system. No one, for example, attempts to architect a skyscraper without first learning about bricks, stone, cement, structural steel, and cables. Yet it is not uncommon in Amateur Radio today to find those, even at the higher classes of license, who are deemed "electronics experts" but are unfamiliar with applying basic Ohm's Law, for which rote-memorized Q&A Study Guides are a contributing factor.

Retain the Morse Requirements

The Morse Code serves the Amateur Radio Service in a far greater role than a simple communications tool. As such, in a *technically-based* Amateur Service, *the requirement is in the public interest:*

(a) First, Morse fosters discipline in the learning process (a particularly acute problem in the US), encouraging youth to stay with a fairly challenging task in working to attain a goal; in this case, frequency privileges at HF.

(b) Second, Morse is thoroughly entwined with the building of inexpensive, low-power equipment for communications in the HF bands and in general learning by doing, which is the main purpose of Amateur Radio. The building and use of low power equipment and the Morse Code have a symbiotic relationship, *to which thousands upon thousands of individuals in the various QRP organizations around the world can attest.* Reducing Morse requirements ultimately will over time reduce frequency allocations in the Morse subbands and can logically be expected to impact those involved with QRP activities and learning practical radio frequency building techniques firsthand.

(c) Countries of the world community having generally lower or significantly lower economic bases yet a more progressive outlook on education than the US are more likely to utilize Morse from the standpoint of economics, building of low power equipment, and language differences. There is no reward for US amateurs, and there may be positive harm, in essentially disenfranchising contact by ultimately limiting or closing a main channel of universal communications with true third-world countries.

ADDITIONALLY, Morse Code is the most basic mode of communications known to Amateur Radio, and as such knowledge of the most basic communication modes is implied and *expected* in a field where "*experts*" in communications, as per the Amateur claim, reside. Moreover, it remains a widely utilized mode worldwide and the mode of choice for simple, low-cost, and especially low-power applications. Also, it is a most effective tool of last resort in emergencies.

Thus, from the standpoint of both technical education and practical communications effectiveness, the actual licensing standard should require mastery (not merely acquaintance that is thinly disguised as mastery), of Morse past the entry classes. Therefore, the Morse requirement should be maintained at 5 wpm for entry classes, 13 wpm for General and Advanced Classes, and 20 wpm for Extra Class to recognize excellence, with a passing grade consisting of one minute solid copy at the stated speed in a 5-minute test period. There should be no provision for multiple-choice or "fill in the blank" CW exams, which techniques used in testing in and of themselves discourage mastery. *Hundreds of thousands and perhaps millions of Amateurs have passed a one-minute solid copy 13 wpm requirement in the US over the last half century, thus demonstrating no insurmountable task for any but those who are mentally handicapped (and can secure the needed exam waiver), or not motivated to accept the learning challenge (no waiver).*

30-day Re-Test Period

Applicants failing to negotiate either a theory or Morse exam element should in a *technically-based* Service not be extended the luxury of taking a second, third, or fourth "re-try" test the same day or evening the initial tests are administered, as is a popular practice today. As such, in a *technically based* Amateur Radio, applicants should be instructed to return for re-testing in not less than 30 days in order to master the subject matter. Eliminating multiple exam-taking of this nature also will greatly reduce the burden on the Volunteer Examiner network. These proposed changes in policy are consistent with FCC exam policy in effect before the era of eased requirements, during which time written examinations demanded that radio amateurs more thoroughly possess a well-grounded understanding of basic electronics and the radio art.

Retain the Novice License

There is little evidence to support the opinion that the Novice Class license be discontinued, but presently every indication to terminate the (no-code) Technician Class. While the Novice license, in particular, became irrelevant after passage of the "no code" VHF license c. 1989, *the Commission's present examination to restructure the Service in and of itself indicates that the no-code VHF experiment to ease entry requirements into the hobby in hopes of attracting "bright, young computer enthusiasts" was not successful.* Moreover, there is increased indication

(given a late proposal filed by the American Radio Relay League that holders of the no-code Technician Class license be allocated CW bandspace in the General-class portion of the bands to improve their code skills) to encourage newcomers to enter ham radio and gain experience through the Novice class.

2-Year Term for Entry Licenses

Licenses for any class designated in the “beginner” category should have a fixed term of one or two years, and not be renewable. A “novice,” for example, is defined as a beginner. It is thus inappropriate for those in a *technically-based* Amateur Radio to renew the Novice Class (and Technician class as now defined) every 5 or 10 years, thus becoming a “beginner” for life.

(b) Establishing a Personal Radio Service

An Amateur Radio Service having *eased* entry requirements *is not in the public interest*. Those who simply require a tool for communications now have the World Wide Web and the Internet, whose purpose is quite different from the Amateur Radio Service as presently defined. If, however, the Commission views as no longer viable the traditional goals of the Amateur Radio Service as a *bona fide* technical learning ground, and favors a replacing of the Service with a personal radio (family) service, there is scant need for examination elements. Participants in the Class-D Citizens Band Service, for example, operate freely in the 27 MHz (HF) region without need for examination of any type. Rote-memorized technical testing for the issuance of licenses in a family radio service thus serves no meaningful purpose, with the only remaining tests justified concerning knowledge of rules and regulations for international communications.

SUMMARY

The Amateur Radio Service, on an international level, remains the only one today capable of serving as a technically based learning ground for participants at little or no cost to any country. It will serve as a technical learning ground in the US, however, only if there are sound underpinnings for placing the educational machine in motion. Those underpinnings imply a challenge to “bright, young, computer enthusiasts” who by definition will not be attracted by “rote-memorized licenses.” It implies licensing where participants master the most basic form of communications, specifically Morse Code; a licensing system where there are no shortcuts, no fast track to instant gratification in attaining frequency privileges on the Amateur bands, and balanced recognition to commercial interests who are dissatisfied with the sales of their HF equipment lines and support an easing of requirements (Westlink Report, 20 May 1994, p. 3). The number of Amateurs and the number of Amateurs per capita has increased in every decade since the inception of Amateur Radio. At the same time, a recent, steady dip in numbers has been cited by the Commission as a supporting reason for streamlining and/or restructuring. As with Class-D Citizens Band, the Commission should thus not overlook the possibility that one major reason for this decline in numbers may have resulted *because* of said easing of requirements and the accompanying realization that there is little accomplishment or prestige in holding an Amateur license.

The system of education and especially science education in the United States is inherently wanting, as has been well documented worldwide for almost two decades. If the Commission wishes to recognize that educational goals serve in the country's best long-term economic interest, and wishes to restore a sense of accomplishment and prestige to Amateur licensing, then its strongest option is to declare a restoring of a *technically-based* Amateur Radio examination structure (as opposed to establishing a personal radio service) in unambiguous fashion.

Very truly yours,



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