

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

In the Matter of)	
)	
Amendment of the Amateur Service Rules)	WT Docket No. 12-283
Governing Qualifying Examination Systems)	
and Other Matters)	
)	
Amendment of Part 97 of the Commission's)	RM-11629
Amateur Service Rules to Give Permanent)	
Credit for Examination Elements Passed)	
)	
Amendment of Part 97 of the Commission's)	RM-11625
Rules to Facilitate Use in the Amateur)	
Radio Service of Single Slot Time Division)	
Multiple Access Telephony and Data)	
Emissions)	
)	
Request for Temporary Waiver)	
)	WT Docket No. 09-209
Amendment of the Amateur Service Rules)	
Governing Vanity and Club Station Call)	
Signs)	

To: The Commission

**COMMENTS OF ARRL, THE NATIONAL ASSOCIATION
FOR AMATEUR RADIO**

ARRL, the national association for Amateur Radio, formally known as the American Radio Relay League, Incorporated (ARRL), by counsel and pursuant to Section 1.415 of the Commission's Rules (47 C.F.R. § 1.415), hereby respectfully submits its comments in response to the *Notice of Proposed Rule Making and Order*, FCC 12-121, 27 FCC Rcd. 12582, 77 FR 64947, released October 2, 2012 (the Notice).¹ The *Notice of Proposed Rule Making* portion of the Notice asks a series of questions and raises a series of proposals concerning administration of

¹ These comments are timely filed pursuant to the dates specified in 77 FR 64947, published October 24, 2012.

examinations and examination element credit for licenses in the Amateur Radio Service. It also addresses a Petition for Rule Making filed by ARRL on March 15, 2011 (RM-11625) seeking to permit the use by Amateur Radio Service licensees of single and multiple time-slot Time Division Multiple Access (TDMA) technology, including certain digital voice and data emissions in Amateur Radio allocations at VHF and above which are not now allowed by Part 97 rules. In response to the numerous issues and proposals raised in the Notice, ARRL states as follows:

I. Introduction.

1. The bulk of this proceeding involves proposed changes in the means by which examinations in the Amateur Service are administered. The Notice also includes an examination of the extent to which persons who have previously held Amateur licenses but allowed them to expire for periods of time in excess of two years (or persons who successfully completed certain Amateur Radio examination elements but did not subsequently pass all of the elements necessary for an upgraded license) should be permitted to re-obtain them without having to again take and pass written examinations in order to do so. The Commission proposes the changes in these aspects of Amateur Radio regulation principally because of a Petition filed by the Anchorage VEC, a Volunteer Examiner Coordinator (VEC) based in Alaska.

2. The Amateur Radio Volunteer Examiner (VE) program is one of the most successful examples of privatization and effective use of volunteer resources in the history of the Commission. It is working exceptionally well overall.² It involves only minimal involvement by

² This is obvious from the fact that the total number of United States Amateur licensees continues to grow each year. As of November 30, 2012 the number of licensees reached an all-time high of 709,291 persons. Previous year-end totals were 702,056 for 2011 and 696,041 for 2010. The number of Technician class licensees peaked in November

the Commission in database administration and nominal oversight and enforcement. There is a plethora of examination opportunities throughout the United States and its territories. It is difficult, therefore, to understand the impetus for many of the changes proposed in the Notice. ARRL and its members are generally of the view that there is no apparent need for the proposals in the Notice relative to examinations and license renewals, and there are substantial, practical problems with several of the Notice proposals. While there are some regulatory reforms that could be implemented which would improve the examination and license renewal processes, the Commission has not addressed them in the instant Notice.

3. The ARRL-VEC is and has always been the largest of the VECs in terms of examinations administered.³ It has extensive experience, gathered over a period of almost 30 years, in Amateur Radio examination administration. ARRL-VEC is very much concerned about the effect of the Commission's Notice proposals on the integrity of the examination and licensing processes, should those proposals be implemented. Absent a factual, quantified record established in this proceeding which demonstrates that there are numerous instances of examination unavailability, the Commission should not take any action in this proceeding that might lead to compromises in either the integrity or the perceived integrity of the VE program.

4. Indeed, the VEC program was premised initially⁴ on remedying two major problems in the Amateur Service that existed in 1982. These were: (1) the unavailability of Amateur Radio examinations at Commission field offices; and (2) the lack of integrity of the examinations at the time due to the unavailability of Commission resources to update the examinations or the

of 2012 at 345,228 and at the end of November, 2012 the number of General and Extra Class licensees peaked at 163,130 and 130,626 respectively.

³ Through October of this year and since the inception of the VE program, ARRL-VEC has served 1,079,015 exam candidates, and it has conducted 138,507 exam sessions.

⁴ See, the Communications Amendments Act of 1934, Pub. L. 97-259; Cong. Rec., August 19, 1982, at H6537.

question pools from which those examinations were derived. Since the inception of the VE program, both of those problems have been effectively solved.⁵ There are, and have for years been, large question pools from which each license class examination is derived. These question pools are carefully maintained and regularly updated in a cooperative manner by all VECs who care to participate in the process. Administration of those examinations is done efficiently and on a very widespread basis by teams of three VEs, which are active and available almost everywhere. Examination opportunities are readily available for disabled persons and for those who reside in even the most rural areas. ARRL would suggest that, while there has historically been a high degree of integrity in the examination process overall, that is true for two principal reasons: (1) the vigilance of most VECs in detecting and addressing instances of examination fraud or irregularities and bringing them to the Commission's attention where warranted; and (2) the architecture of the VE system and the VE teams (which consist of three examiners, all of whom must be present at, and observe all aspects of each examination session). ARRL suggests that a cornerstone of the VE program's integrity from its inception is the three examiner requirement. One or two examiners are insufficient to insure that an examination session will not be compromised. However, the third examiner, if all are present and active at an examination session, adds an important deterrent to any means of compromising an examination. In short, the system works remarkably well. Any tinkering with the structure of it should be done only pursuant to a record which establishes a compelling basis for the changes, and with a great deal of care in order to protect the integrity (and perceived integrity) of the program.

5. Another (and somewhat related) issue raised in the Notice is the proposal of the Anchorage VEC to amend Section 97.505 of the Commission's Rules, to permit individuals

⁵ See footnote 2, supra.

whose Amateur Radio licenses have expired and are beyond the two-year grace period for renewal to be afforded credit for examination elements previously passed. This is not a new concept. The Commission, in 1995, proposed the same relief and in 1997 declined to proceed with it. At the time, the issue was notably controversial. The Commission declined to provide examination element credit to expired licensees beyond the two-year grace period.

6. That proceeding began on January 6, 1994, with ARRL's Petition for Rule Making, RM-8418, seeking amendment of several of the Commission's rules to extend the term of the operator license portion of the Amateur Service license to the lifetime of the licensee. The purpose and benefit of the proposed extension of the operator portion of the license was to permit persons who had held an Amateur Radio operator license, but who left the Service or became inactive for a period of time due to professional, military or family commitments, to return to the Service without the necessity of relicensing. Though the station license would have expired, and the call sign assigned to that station license would have been relinquished, the person who wished once again to return to the Amateur Service at the license class she or he previously possessed could do so without the necessity of re-examination when their personal circumstances permitted.

7. In response to RM-8418 and other unrelated petitions, the Commission released a *Notice of Proposed Rule Making*, 10 FCC Rcd. 5014 (1995) in Docket 95-57, which proposed somewhat different relief than ARRL had requested. Under the Commission's 1995 proposal, the operator license would expire, but an applicant for an Amateur license would be given credit for the fewest examination elements necessary for the license class held, thus to permit the former licensee to re-obtain an operator and station license. There would be no examination necessary,

and examination credit would be afforded to the applicant by the VECs. ARRL argued at the time that the process proposed by the Commission was in effect a license renewal or reinstatement, and not an upgrade by examination. Therefore, it was beyond the authority of the VECs, according to the enabling legislation for the VEC program, 47 U.S.C. § 154(f) (4). The Communications Act, which permits examinations to be prepared and administered by Volunteer Examiners, is not so broad as to permit the processing of renewal applications. The Commission is unable to accept volunteer service which is not specifically provided for by statute. *See*, 31 U.S.C. § 1342.

8. There were numerous comments filed in Docket 95-57 which opposed the affording of examination credit to a former licensee without administration of an examination. Among these was the National Conference of VECs, which argued that Amateurs who have been away from this important public service avocation for long periods of time would find that the Amateur Service and its regulations had substantively changed, and that the examination syllabus provided the necessary updated curriculum and the basis for grant of a new license.⁶ Overall, most of the comments opposed the Commission's proposal to afford examination credit for expired operator license holders, because of concerns that the proposal abandoned the uniformity of demonstration of proficiency that existed because of the examination process. It was also noted that an Amateur license is valid for ten years and there is a two-year grace period within which a licensee can renew an Amateur license quickly and easily, and that anyone who does not avail themselves of the opportunity should have to submit to reexamination thereafter.

⁶ ARRL disagreed with that argument at the time, suggesting that a lifetime operator license was functionally equivalent to periodic license renewals, which did not require any demonstration of current operator capability. However, again, the Commission's proposal for element credit for lapsed licenses differed conceptually from the ARRL's proposed lifetime operator license.

9. The Commission's *Report and Order*, FCC 97-99, 12 FCC Rcd. 3804, released April 1, 1997, stated at Paragraphs 19 and 20 thereof, in relevant part, as follows:

In view of the opposition expressed in the comments, we decline to adopt our proposal to give examination credit for licenses formerly held. Persons who allow their amateur operator license to expire will have to pass the requisite examinations if they later decide to obtain another amateur operator license. We do not believe that attending an examination session is a hardship. The VEs provide abundant examination opportunities... We believe that our procedures provide ample notification and opportunity for license renewal. The license expiration date is shown on our licensee data base, so that it can be obtained (sic) through the Internet even if the license document is lost. Providers in the private sector often use this information to remind licensees that expiration is about to occur. For those persons who inadvertently fail to renew, a two-year grace period is allowed... Further, we have made the license renewal process as simple as possible by expanding our electronic filing procedures to include license renewal... We would... have to develop and maintain a separate data base for the purpose of maintaining indefinitely records of amateur operators who allow their station license to expire. It would not be in the public interest to expand resources for such increased record retention.

(footnotes omitted)

ARRL suggests that these Commission findings in 1997 were correct when reached (taking into account its proposal at the time), and that there is nothing that has changed since that time that should necessitate revisiting the issue now. Nor does the Notice in this proceeding contain any factual findings that would support a reversal of that *Report and Order*. Without considerably more by way of justification than is contained within the four corners of the Notice, the rule changes proposed in the Notice with respect to examination administration run an unacceptably high risk of compromising the integrity and/or the perceived integrity of the Amateur Radio VE Program.

II. Examination Credit for Expired Licenses and/or Expired Certificates of Successful Completion of Examinations.

10. The Commission asks whether there should be any examination credit given to an applicant for an Amateur license for licenses [or Certificates of Successful Completion of Examination elements (CSCEs)] previously held but allowed to expire. If so, the Notice asks for what period of time after the expiration of the prior license (or CSCE) such examination credit should appertain. If there is to be no time limit on such credit, the Notice asks whether the Amateur operator and station license⁷ should be granted without an expiration date (in effect, a lifetime Amateur license). Finally, the Notice asks whether, if there should be no exam credit for former licenses or CSCEs held, there should be a “grace period” (such as the current two-year grace period) after which a license expires, within which the license can be reclaimed by application, and if so, how long that grace period should be.⁸

11. The issue of examination credit for prior Amateur license holders or CSCE holders who permit their licenses to lapse is principally related to the perceived value of an examination as a means of determining the requisite knowledge of regulations, operating techniques and technology by licensees at the time that the examination is taken. It can be assumed that the

⁷ A lifetime *station* license would have the adverse effect of removing desirable call signs from the available pool for indefinite and very long periods of time.

⁸ At paragraph 5 of the Notice, the Commission states that its proposal, if adopted, would not result in former licensees receiving any more privileges than they would have if they had been continually licensed. Former Advanced Class license holders would be reinstated as General Class licensees. No credit would be given for holders of former Novice Class licenses (some of which were renewable when issued and some were not, depending on the date they were issued). The Notice is silent, however, as to what privileges, if any, would be afforded to former holders of Conditional Class licensees, who were, beginning in 1976, renewed as General Class licensees. At paragraph 9 of the Notice, the Commission asks whether there is any benefit in retaining Section 97.505(a)(4) of the Rules which permits a holder of an expired Technician Class license granted before March 21, 1987 to receive credit for examination element 3 (the written examination element for a General Class license). The Commission asks whether this rule is obsolete. There may still be remaining licensees who are holders of expired pre-1987 Technician class licenses who might intend to seek General or Extra Class licenses, and ARRL has no evidence that all of those who might seek the benefit of this rule have been identified or have decided whether or not to invoke it. There are those who recently have utilized this rule. These persons have had to resort to secondary sources such as privately published call sign listings to establish the entitlement to the examination credit. This points up the difficulties of authentication of claimed entitlements to examination credit for expired licenses, discussed hereinbelow.

examination is a reasonable means of ascertaining this capability in licensees *initially*, and that active participation in the Amateur Service is the principal means of expanding and retaining that knowledge and keeping up with regulatory and technological changes in the Service. When this subject was earlier discussed in Docket 95-57, the commenters generally took the position that there are changes in the examination syllabi from time to time, changes in the technology, and changes in the regulations. A former licensee who has been away from the Amateur Service for a long period of time, and who therefore has not been able to actively participate in Amateur Radio activities and communications cannot be expected (according to this argument) to be sufficiently knowledgeable about changes in the Service and its regulatory structure to be permitted to return to the Service without a further examination. For licensees, one can only assume that those persons either have or have continuously had the opportunity to remain current with respect to Amateur regulations, technology and operating practices.

12. A counterargument is raised by the Commission's Notice at paragraphs 6 and 7. The Anchorage VEC suggests that it is unreasonable to assume that a person who did not renew a license has not retained the requisite knowledge to resume being a licensee despite the passage of time.⁹ There is no difference, this counterargument goes, between a former licensee seeking to reenter the Service and a licensee who continued to renew his or her license, but was inactive in the Service for the same period of time (and did not upgrade his or her license class). The Commission's Notice expresses "skepticism" that it is necessary to require former licensees to retest. The fact that an individual allowed his or her license to expire more than two years ago

⁹ The Anchorage VEC argument, however, flies in the face of the Commission's rules, which permit Amateur Radio licensees to renew their licenses without re-examination. The renewal without examination policy is of necessity premised entirely on the assumption that continuous licensing translates into current familiarity with Amateur Radio rules, technology and operating practices, and that the rules are structured to permit flexible self-training and development of new operating skills and knowledge.

does not, the Commission asserts, *necessarily* mean that the person no longer possesses adequate knowledge of the subject.¹⁰ The Notice at paragraph 7 postulates that affording prior license and CSCE credit could create an incentive for former licensees to reenter the Service, and that it could save the former licensee time and money by avoiding the retesting process.¹¹

13. On balance, though this is a subject about which reasonable minds may differ, ARRL suggests that the Commission got it essentially right conceptually in its 1997 *Report and Order* in Docket 95-57. At paragraph 6 of the instant Notice, the Commission states that: “[W]e continue to believe that requiring licensees to either file a timely renewal application or retake the necessary examination before they can be relicensed does not impose an unreasonable burden.” ARRL agrees. There are plentiful examination opportunities and the cost and effort required for most people to take one is, in general, inconsequential. The examination is a demonstration of the minimum capability to exercise certain operating privileges, and a licensee has a total of twelve years within which to prepare to renew a license electronically, a process that is painless, inexpensive and simple. While in some cases there may not be much practical difference between a given inactive licensee who renews his or her license and a given licensee who allows the license to expire more than twelve years after receiving it, there may also be a great deal of difference in other cases. A person who was a licensee in the 1960s and who is coming back to the Service without any involvement in the interim most certainly cannot be assumed to be sufficiently cognizant of the regulatory and technological changes that have occurred in the meantime to be entitled to operate. There must be some prerequisite

¹⁰ This skepticism, however, can only be based on the assumption that Amateur Radio rules, technology and operating practices are static and that there is no value in continuous licensing as a means of affording an opportunity on a flexible basis for a licensee to develop and advance his or her own operating skills and knowledge at the licensee’s own pace.

¹¹ It is not clear, however, how former licensees - especially those whose licenses expired long ago- might become aware of such an opportunity.

demonstration of current knowledge before that person can return. Conversely, a licensee who has been continually licensed during that same period and who has renewed the license may or may not have been active and involved during the period. However, that person has at least demonstrated sufficient interest in the Service to timely renew his or her license, affording the person an opportunity to keep current on rules and technology. The distinction is entirely dependent on individual licensees and a myriad of circumstances, and generalization in this area is simply not possible. ARRL absolutely agrees with the Commission's statement at footnote 14 of the Notice that "[i]t is not unusual for amateur licensees who have not operated for years or decades due to personal circumstances but who maintained their licenses to resume activity upon reaching a different stage of their lives." It is absolutely desirable to accommodate these individuals and to encourage them to take advantage of the immense benefits of Amateur Radio when their personal circumstances permit it. Fortunately for such persons, the Commission has made it very easy for them to do this. It allows a very long license term; a simple renewal process; and a liberal grace period for reinstatement of a license without reexamination. The VECs offer ample examination opportunities if the licensee chose to allow his or her license to expire despite these accommodations. Because of these factors, it is in ARRL's view not necessary or desirable to do more. The Commission's existing two-year grace period for reinstatement of expired licenses without requiring reexamination, coupled with the simplicity of the license renewal process and the abundant opportunities for examinations due to the success of the VE program makes it *very difficult* to argue that a person who obtains a license and allows it to lapse ten years later, and who then fails to take advantage of the liberal grace period for license reinstatement should be entitled to reenter the Service without retaking a written examination.

14. Perhaps the most compelling reason for continuing the *status quo*, however, is the fact that there are serious administrative problems with affording examination credit to former licensees or former CSCE holders. Under the Notice proposal, VEs would be called upon to evaluate the validity of various old documents with which they very likely will not be familiar. This is an unfair burden to place on these volunteers and one that there is no reason to believe that VEs are prepared to undertake effectively. The situation is much worse with respect to CSCEs that were issued but not utilized for license upgrades. CSCEs include handwritten information and markings and are therefore especially susceptible to alteration which is difficult to detect. Copies of CSCEs provided to VECs are not retained indefinitely for verification purposes. It will be difficult if not impossible to objectively verify the documentation that someone might present to a VE or VEC to establish entitlement to lifetime credit for licenses previously held, for examination elements previously passed, or for expired CSCEs.¹² ARRL views this problem as one that is virtually insurmountable. Authentication of old license and CSCE documents and verification of the identity of former license holders is complicated and creates opportunities for fraud, which compromises the licensing process. The alternative to saddling the VEs and VECs with this cumbersome and difficult authentication process is for the Commission to develop and maintain a database of all former license holders who allow their licenses or CSCEs to lapse. This, the Commission *specifically* refused to do in 1997. It should be apparent that there are many opportunities under the Notice proposal to compromise the integrity of the licensing process. It is suggested that the benefits to be realized for some former licensees

¹² At paragraph 7 of the Notice, the Commission asks whether there should be particular documentation or safeguards required in order to prevent someone from fraudulently obtaining a new license using the expired license of a former holder with the same name. Authentication of old documents is difficult under any circumstances, and as discussed herein, this is a process that VEs, VE teams and VECs are not trained to do. Furthermore, privacy entitlements of individuals prevent or inhibit any disclosure requirement of personal information that would contribute to any definitive verification of the identities of submitters of former license documents or CSCEs.

and/or CSCE holders from the examination credit proposal are significantly outweighed by the burdens on the VECs and VE teams from the authentication process and the significant risk of fraud. The examination process is not burdensome as a general matter, and the integrity of the licensing process should be paramount.

15. The Notice asks whether, in lieu of examination credit for former license holders, there should be a longer grace period than the present two years after expiration of an Amateur license within which the license could be reobtained without an additional examination. This is a somewhat less cumbersome and risky proposal than the proposed requirement that VEs afford credit to an applicant who can demonstrate that he or she formerly held a particular class of license. However, a longer grace period is really not the issue. The fact is that a ten-year license term plus a two-year grace period for license reinstatement is an eminently reasonable and liberal period of time, allowing licensees to timely renew using simple electronic means for doing so. It is simply not a burden to require that this process be used on a timely basis (or within two years thereafter) in order to avoid having to retake an Amateur Radio license examination at a later date to reobtain a license. As the Commission stated in 1997,

We believe that our procedures provide ample notification and opportunity for license renewal. The license expiration date is shown on our licensee data base, so that it can be obtained (sic) through the Internet even if the license document is lost. Providers in the private sector often use this information to remind licensees that expiration is about to occur. For those persons who inadvertently fail to renew, a two-year grace period is allowed...

Report and Order, 12 FCC Rcd. 3804 (1997) at ¶19-20.

16. Instead of a longer grace period for license reinstatement after expiration, however, ARRL urges that there should be provided a far more reasonable period *in advance of the expiration of a ten-year Amateur license* within which a licensee might renew. Now, it is not

possible to renew an Amateur Radio Service license earlier than ninety (90) days prior to its expiration. This is cumbersome for many who may be traveling, or in the military, or who have personal issues that arise during the short window. Ninety days is an unreasonably short period of time (relative to the term of the license) within which someone might be able to timely renew in any case. It would make sense to extend the opportunity to renew an Amateur license to, for example, 180 days prior to the expiration date of that license. Expanding the renewal period to 180 days would: (1) likely reduce the number of inadvertent failures to renew during the current, narrow 90-day renewal period, and (2) lessen any perceived necessity to extend the current, liberal two-year grace period for license reinstatement after license expiration. That said, there appears to be no rationale for shortening or lengthening the current two-year grace period for license reinstatement in any case.¹³ The Commission asks whether shortening the grace period for license reinstatement would make vanity call signs more available for reassignment sooner. Perhaps that would be so, but the issue of vanity call signs should not be the determining factor in this process. Shortening the grace period for license reinstatement could potentially prejudice military personnel and others whose personal circumstances might demand that they take advantage of the full, albeit liberal, grace period after license expiration. ARRL recommends that the grace period be retained as-is.

¹³ In effect, any grace period is somewhat arbitrary. When the license term for Amateur licenses was five years, the grace period for reinstatement after expiration was one year. It is likely that the current two-year grace period resulted from the doubling of the license term from five years to ten years and the resultant doubling of the prior grace period.

III. Number of Volunteer Examiners and Remote Proctoring of Examinations.

17. At paragraph 18 of the Notice, the Commission states that questions “sometimes come before the Commission”¹⁴ as to whether three VEs are necessary in order to administer an examination. These periodic inquiries are allegedly related to concerns that an examination session is not readily available at a particular location or time, or that an examinee must travel a long distance to an examination location. The Notice cites the Commission’s decision in 1983 to require three examiners at a test session in order to permit “cross-checking to assure the correctness of answers to the examination questions, to assure proper completion of license applications, and to minimize the likelihood of any possible fraud or abuse.” Of these stated reasons for requiring three examiners at each test session rather than any lesser number, clearly the overriding purpose was to prevent fraud. The theory at the time was that one or two examiners might be part of a scheme that would compromise the integrity of an examination system, but that three examiners are far less likely to conspire successfully to do so. ARRL is convinced that this concept was correct when adopted and remains a critical element of examination integrity now. The Notice, at paragraph 19, claims that the VEs and VECs have “almost eliminated examination grading and application completion errors and that fraud or abuse has been minimal.”¹⁵ Based largely on this generalization, the Commission tentatively concludes that “the required number of administering VEs can now be reduced without jeopardizing the integrity of the amateur operator license examination system.” Thus, the Commission proposes to reduce the number of administering VEs at a test session from three to two. This, it anticipates, might increase the availability of examination opportunities by enabling VEs to offer more test sessions or to offer test sessions at more locations, or both.

¹⁴ The number of such inquiries is not quantified.

¹⁵ There are no statistics offered to substantiate this conclusion.

18. With respect, ARRL suggests that the Commission's premises for this proposed change are neither supportable nor accurate. There is not now a shortage of examination opportunities; examination opportunities are widely available geographically; and while the overall integrity of the VE program is very high indeed, that is so largely because of the three-examiner requirement. The degree of control over the examination session that the three-examiner requirement permits is one reason why the number of fraud cases is not high enough to compromise the integrity of the program overall. The Commission is urged in the strongest terms to not deregulate this aspect of Amateur Radio examination administration. There is no compelling reason to do so.

19. The ARRL-VEC had, as of October, 2012, a total of 36,383 VEs registered. This is an increase of 2,561 VEs over the enrollment in December of 2010. The number of VEs currently accredited by the ARRL-VEC continues to grow each year. They range in numbers in each of the States and territories from a high of 3,183 in California to 10 in the Northern Mariana Islands. ARRL-VEC has VEs everywhere the Commission has jurisdiction. In Alaska, the ARRL-VEC has 76 registered VEs, but there are other VECs who have additional VE teams in Alaska and in even the most remote locations where Amateur examination opportunities are needed. There is no shortage of examination opportunities in general. In 1997, the Commission stated that "[w]e do not believe that attending an examination session is a hardship. The VEs provide abundant examination opportunities..."¹⁶

20. Over the past 28 years, ARRL-VEC has accredited a total of 62,698 General, Advanced and Extra Class licensees as VEs. Despite these impressive numbers, the effect of which is clearly reflected in the number of Amateur licensees overall, there are still a *very few*

¹⁶ *Report and Order*, 12 FCC Rcd. 3804 (1997) at ¶19.

geographic areas which could use additional examination opportunities. However, reducing the number of examiners from three to two per session would not necessarily result in an increase in the number of examination sessions in those few areas. There are other potential means by which additional examinations could be made available in remote locations, if there is a demonstrated demand to do so. However, in general there is no need for regulatory changes in order to encourage additional examination opportunities.

21. Though the Commission assumes that the number of examination fraud cases is minimal, that is an assumption that has been drawn into question by the Commission's Enforcement Bureau very recently. An interview with the Commission's special counsel for Amateur Radio enforcement, Laura Smith, Esquire appears in the December, 2012 issue of *QST*, ARRL's journal. In that interview, Ms. Smith stated as follows:

Surprisingly, the numbers of potentially actionable complaints (of Amateur Radio rule violations generally) has remained fairly consistent over the past four years. The only area that has seen a marked increase is the area of cheating on amateur exams. The VECs have reported multiple cases to the Commission this year already. This is an increase from past years where we might receive one such complaint during the course of a year. I am not sure why there has been such a significant rise in the area of cheating on exams; but I strongly commend the VECs for their vigilance in this year and encourage them to keep up the good work.

This information from the Commission's Enforcement Bureau is not consistent with the unsubstantiated assumption in the Notice that "fraud or abuse (in the VE program) has been minimal." ARRL urges that the Commission make no change in the examination administration process which could exacerbate the "marked increase" in cheating on Amateur examinations.

22. Some statistics of the ARRL-VEC are noteworthy. Over the past 28 years, exam session fraud cases have totaled 374. The States and territories with the highest number of fraud

cases are California (82), New York (48), Puerto Rico (26) and Texas (24). These ARRL-VEC numbers are not significant, but one major reason why the numbers are historically low over time is due to the vigilance of all of the VECs in controlling the examination sessions, and that level of control is premised on having three examiners present at each test session. The three-examiner rule has kept fraud and abuse cases to a minimum and permits a reasonable degree of control by the VEC over individual examination sessions. VECs have been reasonably diligent in implementing measures to detect fraud in examination administration, but the assistance of three examiners has been a key component in the success of this effort. Reducing the number of examiners from three to two would compromise the level of control that the VEC has over the VE teams and it would result in a greater increase in the number of exam cheating cases. Because there is already at present a somewhat alarming spike in such incidents noted by the Commission's Enforcement Bureau, it is not timely to consider any regulatory change that might facilitate compromised examination administration.

23. In 1983, in comments filed in PR Docket 83-27, ARRL noted that it supported the Commission's proposal that teams of three examiners administer Amateur examinations. ARRL said:

Some provision, however, should be made for areas of the United States or foreign locales over which the Commission has jurisdiction and in which examination opportunities are likely to be sparse. In the past, this remoteness has created undue hardship on candidates who had to travel great distances to avail themselves of infrequent FCC testing sessions. Similarly, circumstances may arise where a person may find it impossible to attend a normal examination session because of physical disability, semi-permanent relocation overseas, or some other constraint. ... The League proposes that in extreme cases where three accredited VEs are not readily available as determined by the VEC, the three-examiner rule (should) be waived...

While ARRL could not in April of 1983 have foreseen the success of the VE program, or the ample opportunities that exist for examinations throughout the United States and its territories, its proposed policy asserted in 1983 with respect to the three-examiner rule still applies now. Because in most parts of the country there are many, many examination opportunities, there is no need whatsoever to reduce the number of VEs present at an examination session from three to two by rule. The risk of increased exam fraud opportunities is far too high, and the three-examiner requirement is working well almost everywhere to prevent compromises in examination sessions.

24. However, there are rare instances in which examinations are unavailable. In those rare instances, the Commission should entertain and grant waivers so that no one is deprived of the opportunity to sit for an examination. The Commission has accommodated such rare instances in the recent past.¹⁷ To obtain a waiver, a petitioner must demonstrate either: (i) that the underlying purpose of the rule(s) would not be served or would be frustrated by application to the present case and that a grant of the waiver would be in the public interest; or (ii) that, in view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome, or contrary to the public interest, or that there is no reasonable alternative.¹⁸ It is readily apparent that the relative lack of availability of a three-examiner VE team in a remote location such as Antarctica, or the Mariana Islands, or even in some of the more rural areas of Alaska could justify the grant of a waiver from time to time. These waivers would be few enough in number as to not constitute a burden on the Wireless Telecommunications Bureau. They could either permit a reduction in the number of examiners or

¹⁷ ARRL-VEC has requested and been granted waivers to permit remote proctoring of examinations in Antarctica and in certain remote areas in Hawaii, which incorporated appropriate safeguards to insure secure administration.

¹⁸ 47 C.F.R. § 1.925(b)(3)(i)-(ii).

permit remote proctoring of an examination in compelling cases, provided that there is a sufficient demonstration that the examination would be administered pursuant to that waiver in a fair and secure manner.

25. With respect to remote proctoring of examination sessions, the Commission does not propose, but seeks comment on whether or not remote proctoring should be permitted by rule, or by case-by-case waiver, or not at all. Presently, all three VEs must be present and observe all examinees throughout an entire test session. The same arguments made above with respect to the proposed reduction in the number of examiners applies to the issue of remote proctoring: (1) There is not now in almost all areas of the Commission's jurisdiction any shortage in the number of examination sessions and opportunities; (2) The VE program works with a very high degree of integrity and control by the VE teams and the sponsoring VEC under present procedures; (3) The current rules requiring the physical presence of three VEs at each test session contributes substantially to this generally high degree of integrity and perceived integrity in the examination process; (4) There is good reason to believe that a blanket rule change permitting remote proctoring of examinations or a reduction in the number of VEs present at a test session will result in increased instances of compromised examinations; and (5) the assumption that examination fraud and abuse has been minimal is not valid, as exam cheating is apparently on the increase.

26. There is no bright-line test that would allow the Commission to create a fair rule that permits remote proctoring of examinations in some geographic areas but not in others. In this situation, the waiver process is uniquely applicable and uniquely justifiable.¹⁹ No one could

¹⁹ The Commission may waive a rule for good cause shown. 47 C.F.R. §1.3. Waiver is appropriate if special circumstances warrant a deviation from the general rule and such deviation would better serve the public interest

reasonably argue that examination opportunities should be denied to persons who are either temporarily or permanently assigned to or choose to reside in wilderness areas or who due to personal circumstances cannot attend one of the myriad of test sessions that is available. However, neither is there any justification for permitting remote proctoring of examinations in New York or Los Angeles or most other cities or suburbs within the continental United States. Use of the Commission's waiver process will permit an evaluation of the particular methods of remote proctoring of examinations proposed in a given case. The VEC who wishes to sponsor the examination opportunity should be the entity requesting the waiver and should specify in each case the means by which the examination will be administered fairly and in a secure manner. ARRL anticipates that at least one accredited VE should be present at a remote testing site, unless extreme circumstances make even that safeguard impossible. In each such waiver request, a demonstration of the need for variation from the rule requiring the presence of three VEs at each test session [as is required pursuant to 47 C.F.R. § 1.925(b)(3)(i)-(ii)] and a demonstration of the security of the proposed examination administration procedure and environment should be mandatory.

than would strict adherence to the general rule. *Northeast Cellular*, 897 F. 2d 1164, 1166 (D.C. Cir. 1990). Generally, the Commission may grant a waiver of its rules in a particular case if the relief requested would not undermine the policy objective of the rule in question and would otherwise serve the public interest. *WAIT Radio v. FCC*, 418 F2d 1153, (DC Cir 1969); *Dominion Video Satellite, Inc., Order and Authorization*, 14 FCC Rcd. 8182 (Int'l Bur. 1999). In *WAIT Radio*, it was held that even if the overall objectives of a general rule have been adjudged to be in the public interest, it is possible that application of the rule to a specific case may not serve the public interest if an applicant's proposal does not undermine the public interest policy served by the rule. 418 F. 2d at 1157. In discussing the treatment of requests for waivers of established rules, the court in *WAIT Radio* emphasized that the agency's discretion in applying general rules is intimately linked to the existence of "a safety valve procedure" to permit consideration of an application for exemption based on special circumstances. *Id.* Indeed, the court considered a rule most likely to be undercut if it does not take into account "consideration of hardship, equity, or more effective implementation of overall policy..." *Id.* at 1159.

IV. Morse Code Examination.

27. At paragraph 23 of the Notice, the Commission proposes to adopt certain conforming rule changes to reflect that, in 2006, the Commission eliminated the requirement of a Morse telegraphy examination for all classes of Amateur license. ARRL has no concern with these proposed amendments, or the proposed language therefor.

V. Emission Types.

28. At paragraphs 24 through 28 of the Notice, the Commission proposes (per ARRL's *Petition for Rule Making*, RM-11625, filed March 15, 2011) to amend Sections 97.3(c) (5) and 97.307(f) (8) of the Commission's rules, in order to permit Amateur Radio Service licensees to utilize single time-slot and multiple time-slot TDMA technology in Amateur allocations at VHF and above. As a practical matter, this required the addition of FXD, FXE and F7E emissions to those already authorized for Amateur operation at VHF and above. The Notice proposes to authorize FXD and FXE emissions in the Amateur Service and has asked in the Notice whether additional emissions (such as F7E) should be authorized as well.

29. ARRL appreciates the inclusion of its RM-11625 proposal in this proceeding and urges that the Commission adopt the rules as proposed, with the addition of the F7E emission as well. There are numerous narrowband UHF repeater facilities using multiple time-slot TDMA repeaters and single-slot TDMA handheld digital transceivers now in use in the 70 centimeter (420-450 MHz) Amateur band. These are especially prevalent in the western part of the United States and in the New York City area, and as well in several Midwestern states. Because the legality of the use of these systems was drawn into question more than a year ago, Amateur

Radio Service licensees who have implemented these new digital, spectrum-efficient repeater systems are now and have been relegated to using them in analog mode operation only.

Installation of these systems (anticipating the ability to use digital emissions) was done in all cases with the understanding that they were in full compliance with the Commission's regulations governing permitted emissions, and all other technical rules in Part 97. ARRL's analysis of the matter, however, led to the conclusion that the present rules did not clearly permit multiple- and single-slot TDMA emissions in the VHF and UHF Amateur Radio Service allocations. ARRL therefore filed its March 15, 2011 Petition for Rule Making.

30. The use of digital repeater systems in the Amateur Service is expanding in the United States. Some Amateur licensees use the D-Star or P-25 technology. Others have begun to utilize TDMA technology, an example of which is a Motorola TDMA system marketed commercially (to land mobile licensees) as "MotoTRBO". Motorola's TDMA product conforms to the Digital Mobile Radio (DMR) Tier 2 Standard (a published, open standard; *See*, ETSI TS 102-361, parts 1-4). It is two-slot TDMA technology (as to the repeater; the associated portable and mobile transceivers use single-slot TDMA emissions). It is compatible with existing Amateur repeater channelization plans, and thus contributes to a gradual migration to digital communications in the Amateur Service. The Motorola TDMA product specifies emission designators 7K60FXE in voice mode and 7K60FXD for data. It also, for repeaters, specifies, *inter alia*, a 7K60F7E emission. The problem with this is that neither the "7" nor the "X" symbol in the second space defining the emission is included in Section 97.3(c) in defining either "phone" (i.e. telephony) or "data". Specifically, with respect to phone emissions, Section 97.3(c)(5) includes in the definition speech and other sound emissions having the symbols 1, 2 or 3 as the second symbol (and thus excluding the symbols "7" or "X"). Section 97.3 does not prohibit or permit the use of

any specific emission. It simply lists what is included in the broad classifications of emissions authorized per Amateur band in Section 97.305, and as authorized by Sections 97.307 and 97.309 of the Amateur rules.

31. Section 97.307(f)(8) of the Amateur Radio Service rules, lists additional data emissions permitted in the bands 6 meters and above. It reads as follows:

(8) A RTTY or data emission having designators with A, B, C, D, E, F, G, H, J or R as the first symbol; 1, 2, 7 or 9 as the second symbol; and D or W as the third symbol is also authorized.

Nothing in 97.307(f) (8) authorizes single time-slot TDMA either, though it does permit the F7D emission, covering the TDMA repeater operation in data mode. In order to permit the use of single- slot TDMA equipment (both repeaters and mobile and portable transceivers) in data mode in the VHF and UHF bands, amendment of this Section is necessary, in addition to the amendment of Section 97.3(c)(5) to allow use of the emissions FXD, FXE *and* F7E.

32. The current limitation of permitted emissions discussed above is counter to the Commission's well-established intent to provide flexibility and to permit innovation in the implementation of spectrum-efficient digital technologies in the Amateur Service. The spectrum-efficient, narrowband systems that are now in place using TDMA technology, and which are reportedly not causing interference, should be permitted to operate in digital mode. ARRL urges that the Commission proceed without delay to adopt the Notice proposal to amend Sections 97.3(c)(5) and 97.307(f) (8) of the Commission's rules to clearly allow use of the emissions FXD, FXE, F7D *and* F7E at VHF and above.²⁰

²⁰ ARRL filed on or about March 15, 2011, contemporaneously with its Petition for Rule Making, RM-11625, a waiver request seeking temporary waiver of Sections 97.3(c)(5) and 97.307(f)(8) of the Commission's rules so as to

VI. Conclusions.

33. For the foregoing reasons, ARRL urges the Commission to not adopt the Notice proposal to provide examination credit for former licensees whose license expirations occurred more than two years ago; or to permit holders of expired Certificates of Successful Completion of Examinations to obtain licenses or license upgrades by means of those documents. The Volunteer Examiner Program is working extremely well and efficiently and does not need “fixing.” While reinstating expired licenses without re-examination would benefit some individuals, there is no compelling need for a change in the rules. There are considerable administrative difficulties in the Notice proposal, particularly if Volunteer Examiners would be called upon to evaluate the validity of various old documents with which they may not be familiar. Certificates of Successful Completion of Examinations include handwritten information and markings and are susceptible to alteration, and the copies submitted to VECs are not retained indefinitely. It will be difficult or impossible to objectively verify the documentation some applicants might present, especially in the field. Granting lifetime credit for exam elements taken and passed at some earlier time and/or CSCEs would therefore be burdensome on both VEs and VECs. Opportunities for fraud and mistakes would be significant.

permit the use by Amateur Radio Service licensees of single and multiple time-slot Time Division Multiple Access (TDMA) during the pendency of its Petition for Rule Making. The Commission took no action on that Request until the issuance of the Notice in this proceeding, in which, at paragraph 29 thereof, the Commission dismissed the Request. It did so, according to the Notice, solely because ARRL failed to file an amendment to the Request to include emission F7E to the emissions ARRL asked to be permitted for Amateurs to utilize *pendent lite* (i.e. FXE and FXD emissions). The Notice stated that the omission would not result in the authorization that ARRL sought with respect to the waiver, because it would not permit the use of TDMA emissions for voice operation on repeaters associated with mobile units, but rather only on the mobile units themselves. The failure to file an amendment to ARRL’s earlier Request for Temporary Waiver was due to a miscommunication between undersigned counsel and Commission staff. It was remedied by virtue of a *Second Request for Temporary Waiver* filed by ARRL on October 4, 2012 in this proceeding. The Second Request remedied the omission referenced by the Commission. However, to date, no action has been taken on this Second Request. It is respectfully requested that the Commission revisit the temporary waiver request during the pendency of the instant docket proceeding, and to expeditiously grant the same for the reasons stated therein.

34. There appears no compelling rationale for changing the two-year grace period for license reinstatement after expiration without an examination. However, it is unclear why license renewal applications cannot be submitted earlier than 90 days prior to expiration. ARRL urges that the Commission expand the window for renewal application filing to begin six months prior to license expiration. If this can be implemented there would be even less reason to lengthen the grace period.

35. It is not at all burdensome to require the timely filing of a renewal application every ten years, and the grace period for license reinstatement, though somewhat arbitrary by definition, is nevertheless appropriate as it stands. No change is urged.

36. A reduction from three to two in the number of Volunteer Examiners required to be present at an exam session is not desirable. One major reason for the high level of examination integrity over time is the three-examiner requirement. VECs should not be denied the control over each examination session that is currently facilitated by the three-examiner requirement. There is presently a “marked increase” in instances of “cheating on amateur exams” according to the Commission’s Enforcement Bureau. This indicates strongly that it is not an appropriate time to implement any regulatory changes, especially in view of the absence of compelling reasons to do so.

37. While the need may exist in some exceptional circumstances for amateur examination sessions to be proctored remotely, these are rare occasions and in very limited locations such as in Antarctica. These rare instances should be addressed through the waiver process rather than by a change in the Part 97 rules. The need for remote proctoring has not been quantified, so there is insufficient reason for such a sweeping change in the rules. There is an inherent difficulty in

ensuring adequate supervision of such examinations which should be reviewed on a case-by-case basis through the use of waivers as required. Waivers should rarely be granted for examination sessions to be conducted without at least one accredited Volunteer Examiner physically present on site.

38. The Commission should not at present eliminate the rule allowing pre-1987 Technician class licensees to upgrade to General Class. There are still some, though admittedly not many, who continue to make use of the opportunity and will for the indefinite future.

39. Finally, the Commission should adopt the Notice proposal to amend Sections 97.3(c)(5) and 97.307(f) (8) of the Commission's rules to clearly allow use of the emissions FXD, FXE, F7D *and* F7E at VHF and above at the earliest possible time, and it should grant ARRL's Second Request for Temporary Waiver to permit the same relief *pendente lite*.

Therefore, given the foregoing, ARRL, the national association for Amateur Radio,

respectfully requests that the Commission modify Part 97 of the Commission's Rules affecting the Amateur Radio Service only in accordance with the foregoing, and not otherwise.

Respectfully submitted,

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