

**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 Rules	)	RM-11625
to Facilitate Use in the Amateur Radio Service of	)	
Single Slot Time Division Multiple Access	)	
Telephony and Data Emissions	)	
	)	
Amendment of the Amateur Service Rules	)	WT Docket No. 09-209
Governing Vanity and Club Station Call Signs	)	

**REPORT AND ORDER**

**Adopted: June 5, 2014**

**Released: June 9, 2014**

By the Commission:

**I. INTRODUCTION**

1. In this *Report and Order*, we adopt rule changes to Part 97 of the Commission’s Rules that were proposed in the *Notice of Proposed Rule Making and Order (NPRM)* in this proceeding.<sup>1</sup> The *Report and Order* amends the rules for the Amateur Radio Service by modifying the qualifying examination system to grant partial examination credit for certain expired amateur operator licenses and to permit examinations to be administered remotely. In addition, we amend Part 97 to allow amateur stations to transmit certain additional emission types. These rule changes will allow amateur service licensees to better fulfill the purposes of the amateur service and will enhance its usefulness.

**II. BACKGROUND**

2. The Part 97 rules specify different operating privileges for the various classes of licenses in the Amateur Radio Service.<sup>2</sup> To demonstrate that he or she qualifies for a new or upgraded amateur operator license, a person must pass an examination, or otherwise receive credit, for the examination element(s) required to qualify for the relevant license class.<sup>3</sup> Specifically, applicants for a Technician Class license must pass or otherwise receive credit for Element 2; applicants for a General Class license must pass or otherwise receive credit for Elements 2 and 3; and applicants for an Amateur Extra Class

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<sup>1</sup> See Amendment of the Amateur Service Rules Governing Qualifying Examination Systems and Other Matters, *Notice of Proposed Rulemaking and Order*, WT Docket No. 12-283, 27 FCC Rcd 12582 (2012) (*NPRM*).

<sup>2</sup> See 47 C.F.R. § 97.301.

<sup>3</sup> See 47 C.F.R. §§ 97.501, 97.505.

license must pass or otherwise receive credit for Elements 2, 3, and 4.<sup>4</sup> Element 2 is a thirty-five question examination element that tests on rules and regulations, basic amateur operating procedures, propagation of radio signals, and the technology used in radios. Element 3 is a thirty-five question examination element oriented toward operating in the high frequency (HF) portion of the amateur bands, as the General Class operator license authorizes more HF privileges than the Technician Class license authorizes. Element 4 is a fifty-question examination element is oriented toward more specialized types of amateur service activities, such as satellite operations and the preparing and administering amateur radio examinations.

3. Applications for new or upgraded licenses must be filed through a volunteer-examiner coordinator (VEC),<sup>5</sup> which obtains the applicant information from volunteer examiners (VEs).<sup>6</sup> A VEC may not accredit as a VE any person whom the VEC determines is not competent to perform the VE functions, or if the VEC otherwise determines that there are sufficient questions raised as to the person's integrity or honesty that could compromise the examinations.<sup>7</sup>

4. Amateur license operator examinations are administered by a team of at least three VEs who are responsible for the proper conduct and necessary supervision of each examination.<sup>8</sup> The VEs must be present and observing the examinee throughout the entire examination.<sup>9</sup> The administering VEs grade the examinee's answers immediately upon completion of each examination element, and issue a Certificate of Successful Completion of Examination (CSCE) to an examinee who scores a passing grade on an examination element.<sup>10</sup>

5. A person also receives credit for an examination element if he or she presents either a CSCE issued within the previous 365 days for that element or an unexpired (or expired but within the two-year grace period for renewal<sup>11</sup>) amateur operator license that required passage of that element.<sup>12</sup> With one exception, element credit is not given for an amateur operator license that has expired and is beyond the renewal grace period.

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<sup>4</sup> See 47 C.F.R. § 97.501. Elements 2, 3 and 4 consist of sets of 35, 35 and 50 questions, respectively, with each set focused on the privileges of one of three types of operator license. See 47 C.F.R. § 97.503. Specifically, Element 2 consists of questions about the privileges of a Technician Class operator license, Element 3 covers the General Class operator license, and Element 4 covers the Amateur Extra Class operator license. *Id.* To receive credit for an element, the applicant must answer a specified minimum number of questions correctly. *Id.* (Element 1, which was the telegraphy element, was eliminated when the Commission amended its rules to eliminate the requirement that certain amateur radio service licensees pass a Morse code examination. See Amendment of Part 97 of the Commission's Rules to Implement WRC-03 Regulations Applicable to Requirements for Operator Licenses in the Amateur Radio Service, *Report and Order and Order on Reconsideration*, WT Docket No. 05-235, 21 FCC Rcd 14797, 14816-17 (2006).)

<sup>5</sup> See 47 C.F.R. §§ 97.17(b)(1), 97.21(a)(2), 97.509(m), 97.519(b)(3).

<sup>6</sup> See 47 C.F.R. § 97.509(a).

<sup>7</sup> See 47 C.F.R. § 97.525(a)(3), (4).

<sup>8</sup> See 47 C.F.R. § 97.509(c), (d).

<sup>9</sup> See 47 C.F.R. § 97.509(a), (c). Each examinee must comply with the instructions given by the administering VEs, or the administering VEs must immediately terminate the examination. See 47 C.F.R. §§ 97.509(c), 97.511.

<sup>10</sup> See 47 C.F.R. § 97.509(h), (l). When the administering VEs determine that the examinee has passed the examination elements required for the operator license sought, they must certify that the examinee is qualified for the license grant and that they complied with the administering VE requirements. They are jointly and individually accountable for the proper administration of each examination element reported. See 47 C.F.R. § 97.509(i).

<sup>11</sup> See 47 C.F.R. § 97.21(b).

<sup>12</sup> See 47 C.F.R. § 97.505.

6. The exception is that a holder of an expired Technician Class operator license granted before March 21, 1987 receives credit for examination Element 3.<sup>13</sup> Prior to this date, the written examination for a Technician Class and a General Class operator license was the same, and the requirements for the two licenses differed only with respect to the telegraphy (Morse Code) examination. In 1987, the Commission reorganized the written examination element into one examination for the Technician Class license and an additional examination for the General Class license, but provided that licensees who had passed the consolidated examination would receive credit indefinitely for the written examination required for a General Class license (Element 3).<sup>14</sup> The rules did not afford such licensees lifetime credit for Element 2. Given that a licensee must pass, or receive credit for, all examinations elements currently required for each license class, holders of expired Technician Class operator licenses granted before March 21, 1987 therefore must pass the written examination for Element 2 before they can be relicensed, but they receive credit for Element 3 without passing that examination.<sup>15</sup>

7. In 1995, the Commission proposed to amend the rules to generally allow examination element credit for expired amateur operator licenses.<sup>16</sup> In light of comments largely opposing the proposal, however, the Commission in 1997 declined to amend the rules, concluding that requiring licensees either to renew their licenses or retest before they may reenter the amateur service does not impose a hardship.<sup>17</sup> The Commission noted that its procedures provide ample notification and opportunity for license renewal, and VECs provide numerous examination options.<sup>18</sup>

8. In 2011, the Anchorage Volunteer Examiner Coordinator (Anchorage VEC) requested that the Commission amend the rules to grant examination credit for expired amateur operator licenses, instead of requiring former licensees to retest.<sup>19</sup> In response, the Commission adopted the *NPRM* in this

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<sup>13</sup> See 47 C.F.R. § 97.505(a)(4).

<sup>14</sup> See Amendment of the Amateur Radio Service Rules to Expand the Privileges Available to Novice Operators, *Report and Order*, PR Docket No. 86-161, 1 FCC Rcd 727, 731 ¶ 21 (1987); see also Amendment of the Amateur Service Rules to Change Procedures for Filing an Amateur Service License Application and to Make Other Procedural Changes, *Order*, 9 FCC Rcd 6111, 6119 (PRB 1994) (*Amateur Procedures Order*).

<sup>15</sup> Similarly, credit for examination Element 1 previously was given for an expired Technician Class license granted before February 14, 1991 (the date after which a telegraphy examination was no longer required to obtain a Technician Class license). See Amendment of Part 97 of the Commission's Rules Concerning the Establishment of a Codeless Class of Amateur Operator License, *Report and Order*, PR Docket No. 90-55, 5 FCC Rcd 7631, 7634 ¶ 33 (1990); see also *Amateur Procedures Order*, 9 FCC Rcd at 6112 ¶ 4, 6116. The Commission later extended Element 1 credit to all licensees who had passed the telegraphy examination but subsequently allowed their licenses to expire, because they had demonstrated the same level of competence as expired pre-February 14, 1991 Technician licensees. See Amendment of Part 97 of the Commission's Rules Governing the Amateur Radio Services, *Report and Order*, WT Docket No. 04-140, 21 FCC Rcd 11643, 11668 ¶ 56 (2006) (*2006 Report and Order*). Those former licensees still had to pass the written examination for other required examination elements in order to be relicensed. See 47 C.F.R. § 97.505(a)(9) (2006).

<sup>16</sup> See Amendments to the Amateur Service Rules Including Amendments for Examination Credit, Eligibility for a Club Station License, Recognition of the Volunteer Examiner Session Manager, a Special Event Call Sign System, and Self-Assigned Indicator in the Station Identification, *Notice of Proposed Rule Making*, WT Docket No. 95-57, 10 FCC Rcd 5014, 5014 ¶ 2 (1995).

<sup>17</sup> See Amendments to the Amateur Service Rules Including Amendments for Examination Credit, Eligibility for a Club Station License, Recognition of the Volunteer Examiner Session Manager, a Special Event Call Sign System, and Self-Assigned Indicator in the Station Identification, *Report and Order*, WT Docket No. 95-57, 12 FCC Rcd 3804, 3811-12 ¶¶ 18-20 (1997).

<sup>18</sup> See *id.* at 3811-12 ¶¶ 19-20.

<sup>19</sup> See Petition for Rule Making, RM-11629 (filed April 15, 2011).

proceeding, in which it indicated its tentative belief that requiring licensees either to renew their licenses or retest in order to reenter the amateur service does not impose an unreasonable burden.<sup>20</sup> Nonetheless, the Commission tentatively agreed with Anchorage VEC that it is not necessary to require former licensees to retest – notwithstanding the Commission’s tentative belief that retesting is not an unreasonable burden – because the fact that an individual allowed his or her license to expire more than two years earlier does not necessarily mean that the person no longer possesses adequate knowledge of the subject.<sup>21</sup> Accordingly, the Commission proposed to amend the rules to require that VEs give examination element credit to an applicant who formerly held a class of license that required passage of that element.<sup>22</sup> The Commission also sought comment on corresponding changes to related rules.<sup>23</sup>

9. In addition, on its own motion, the Commission proposed to reduce the minimum number of VEs required to administer an examination session from three to two, and sought comment on permitting remote proctoring of examination sessions.<sup>24</sup> It tentatively concluded that such measures would increase the availability of examination opportunities without compromising the integrity of the amateur license examination system.<sup>25</sup>

10. Finally, the Commission proposed, in response to a petition for rulemaking filed by the American Radio Relay League, Inc. (ARRL),<sup>26</sup> to amend the Amateur Service rules to allow amateur stations to transmit certain additional emission types.<sup>27</sup> It noted that the rules specify the emission types that may be transmitted on amateur frequencies, but do not permit certain emission types that are used in other radio services and could be implemented on amateur frequencies without detriment to other communications.<sup>28</sup>

### III. DISCUSSION

#### A. Examination Credit

11. *Background.* Amateur licenses are normally granted for a ten-year term.<sup>29</sup> Licensees may apply, either by mail or electronically via the Commission’s Universal Licensing System, for renewal beginning ninety days prior to expiration.<sup>30</sup> In addition, a person whose amateur station license grant has expired may apply for renewal of the license during a two-year grace period without requesting a rule waiver or retesting.<sup>31</sup>

12. A licensee who allows his or her license to expire beyond the grace period for renewal is, for examination credit purposes, treated differently from a licensee who continuously renewed his or her license. In the *NPRM*, the Commission observed that the fact that an individual allowed his or her license

<sup>20</sup> See *NPRM*, 27 FCC Rcd at 12584 ¶ 6.

<sup>21</sup> See *id.* at 12584 ¶¶ 5-6.

<sup>22</sup> See *id.* at 12585 ¶ 7.

<sup>23</sup> See *id.* at 12585-87 ¶¶ 10, 12, 15.

<sup>24</sup> See *id.* at 12589 ¶¶ 20, 22.

<sup>25</sup> See *id.*

<sup>26</sup> Petition for Rule Making, RM-11625 (filed March 15, 2011) (ARRL Petition).

<sup>27</sup> See *NPRM*, 27 FCC Rcd at 12591 ¶ 28.

<sup>28</sup> See *id.* at 12590-91 ¶¶ 25-28.

<sup>29</sup> 47 C.F.R. § 97.25.

<sup>30</sup> See 47 C.F.R. §§ 1.913(d)(2), 1.949(a), 97.21(a)(3).

<sup>31</sup> See 47 C.F.R. § 97.21(b).

to expire more than two years ago does not necessarily mean that the person no longer possesses adequate knowledge to be an amateur service licensee, and, conversely, that renewal of a license within the time permitted by the rules does not establish that the licensee retained such knowledge, given that amateur radio licensees are not required to prove activity in order to remain licensed.<sup>32</sup> Accordingly, it proposed to revise Section 97.505 to require that VEs give examination credit to an applicant who can demonstrate that he or she formerly held a particular class of license, noting that this proposal would not result in former licensees receiving any more privileges than they would have if they had been continually licensed, and that this proposal could encourage former licensees to become involved again in the technical self-training and public service communications opportunities provided by the amateur service.<sup>33</sup>

13. *Decision.* We will revise the rule, but not to the full extent proposed in the *NPRM*. Instead, we amend the rules to grant credit for written examination Elements 3 and 4 for expired licenses that required passage of those elements, but we will still require former licensees to pass Element 2 before they can be relicensed.<sup>34</sup>

14. Commenters were split regarding the proposal to grant examination credit for expired amateur operator licenses. Some agree with the Commission's assessment of the relative qualifications of licensees who continuously renew their licenses compared to those who allow their licenses to expire.<sup>35</sup> Others, however, assert that an operator who maintains his or her license is more likely to have been active and therefore more likely to have maintained and expanded his or her knowledge and skills.<sup>36</sup> Some argue that granting examination credit for expired licenses will invite fraud and impose administrative burdens on VEs, who will be required to evaluate the validity of old documents with which they may not be familiar,<sup>37</sup> while others observe that no such problems appear to have resulted from past Commission decisions to grant examination credit for expired licenses in certain circumstances.<sup>38</sup>

15. Our decision to grant credit for written examination Elements 3 and 4 for expired licenses that required passage will provide some relief for former General, Advanced, and Amateur Extra Class licensees, and is consistent with how we treat expired pre-1987 Technician Class licensees who want to reenter the amateur service.<sup>39</sup> Requiring licensees with expired licenses to pass Element 2 in order to be

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<sup>32</sup> See *NPRM*, 27 FCC Rcd at 12584 ¶ 5 (citing Amendment of Part 97 of the Commission's Rules to Permit Telephony Operation in the 7075-7100 kHz Frequency Band in the Caribbean Insular Areas, *Report and Order*, PR Docket No. 85-104, 59 Rad. Reg. 2d (P & F) 906, ¶ 7 (1986)).

<sup>33</sup> See *id.* at 12585 ¶ 7. The Commission also sought comment on whether particular documentation or safeguards should be required in order to prevent anyone from fraudulently obtaining a new license using the expired license of a different person with the same name.

<sup>34</sup> See Comments of Robert R. R. Jenkins at 2. That is, holders of expired Amateur Extra Class operator licenses will receive examination credit for Elements 3 and 4, and holders of expired Advanced and General Class operator licenses will receive examination credit for Element 3. Holders of expired Technician Class operator licenses granted before March 21, 1987 also will continue to receive examination credit for Element 3. The Commission sought comment on whether the rules could be streamlined by eliminating as obsolete the rule regarding expired pre-1987 Technician operator licenses. See *NPRM*, 27 FCC Rcd at 12585 ¶ 9. Because the record indicates that former licensees continue to utilize this provision, *see, e.g.*, Comments of James B. Wiley at 7, we will retain the rule.

<sup>35</sup> See, *e.g.*, Comments of CQ Communications at 2.

<sup>36</sup> See, *e.g.*, Comments of John Lamb at 2.

<sup>37</sup> See, *e.g.*, Comments of ARRL at 12.

<sup>38</sup> See, *e.g.*, Comments of Stephen J. Melachrinis at 2-3.

<sup>39</sup> It also is consistent with the element credit that the Commission granted to former licensees who had passed a telemetry examination.

relicensed will address commenters' concerns about lost proficiency and knowledge because a former licensee will have to demonstrate that he or she has retained knowledge of technical and regulatory matters in order to be relicensed. Stated conversely, a former licensee who cannot pass Element 2 loses the presumption that he or she has retained sufficient knowledge of amateur radio rules and principles, and will not be relicensed. Requiring former licensees to pass Element 2 will also deter attempts by someone with the same name as a former licensee to obtain a license without passing an examination.

16. Current rules and processes applicable to expired pre-1987 Technician Class licenses are sufficient to verify that an individual is a former licensee under our new rules. VEs already are required to accept certain expired FCC-issued operator licenses as proof of licensure, regardless of how long ago the license was issued. VEs frequently accept other documentation to show an individual was a licensee and, therefore, is eligible for examination credit. For example, VEs accept license verification letters from the Commission and Callbook Magazine listings.<sup>40</sup> It is not necessary to limit license verification documents to those that “only come from the FCC’s own records” or for us to “make available ... samples of various license documents that it issued between 1934 and 2001” to prevent fraud.<sup>41</sup> Relying on the type of rules and processes that are currently in place constitutes an approach that can be used with confidence, without creating any unnecessary burdens for VEs.

17. In conjunction with the proposal in the *NPRM* to grant examination credit for expired amateur operator licenses instead of requiring former licensees to retest, the Commission sought comment on extending the validity of a CSCE for examination element credit to the holder’s lifetime,<sup>42</sup> proposed to shorten the renewal grace period from two years to six months,<sup>43</sup> and sought comment on commensurately shortening the two-year waiting period<sup>44</sup> for call signs associated with expired licenses to become available for reassignment through the vanity call sign system.<sup>45</sup> In light of our decision above to grant only partial examination credit for certain expired amateur operator licenses, we decline to adopt these proposals, all of which were predicated on a rule change permitting all former licensees to obtain new licenses without any retesting.

## **B. Examination Administration**

### **1. Number of VEs**

18. *Background.* As noted above, our rules require that amateur operator license examinations be administered by a team of at least three VEs. When it established the VE system, the Commission accepted commenters’ suggestion that VE teams consist of three examiners<sup>46</sup> because “[t]he use of three examiners provides for cross-checking to assure the correctness of answers to examination questions, to assure proper completion of license applications, and to minimize the likelihood of any

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<sup>40</sup> Generally this documentation is accepted as proof that a former licensee held a Technician Class operator license prior to March 21, 1987 and is eligible for examination credit for Element 3. See *2006 Report and Order*, 21 FCC Rcd at 11669 ¶ 60 (“NCVEC [the National Conference of Volunteer Examiner Coordinators] states that all VECs currently accept *Callbook Magazine* and old databases to verify former licensure”) (footnotes omitted).

<sup>41</sup> See Comments of John B. Johnston at 2.

<sup>42</sup> See *NPRM*, 27 FCC Rcd at 12585-86 ¶ 10.

<sup>43</sup> See *id.* at 12586 ¶ 12.

<sup>44</sup> See 47 C.F.R. § 97.19(c)(1).

<sup>45</sup> See *NPRM*, 27 FCC Rcd 12587 ¶ 15.

<sup>46</sup> See *Use of Volunteers to Prepare and Administer Operator Examinations in the Amateur Radio Service*, 48 Fed. Reg. 8090, 8092 ¶¶ 6-8 (1983).

possible fraud or abuse.<sup>47</sup> In the *NPRM*, the Commission noted that the three-VE requirement has resulted in occasional claims that three VEs are not available at a particular location or time that an examinee would like to take an examination, or that an examinee must travel to an inconvenient location where three VEs are available.<sup>48</sup> The Commission proposed to reduce the minimum number of VEs required to administer an examination to two.<sup>49</sup> It tentatively concluded that reducing the number of required VEs would not compromise the reasons the Commission decided that more than one VE is necessary to administer an examination, but could reduce the difficulty and expense that some examinees and VEs experience in traveling to an amateur radio license examination session.<sup>50</sup>

19. *Decision.* The proposal to reduce the minimum number of VEs required to administer an examination is opposed by a clear majority of commenters, including numerous VEs and the largest VECs.<sup>51</sup> They argue that the use of three VEs results in higher accuracy and lower fraud than would be the case with two VEs, and that errors and improprieties have been detected by three-member teams that might have gone undetected by a team of two.<sup>52</sup> Even some commenters who support the proposal state that the use of two-VE teams should be limited.<sup>53</sup> Given VECs' and VEs' unique knowledge of the mechanics of administering amateur examinations, we find these comments to be persuasive. The record indicates that a minimum of three VEs is appropriate to minimize fraud or abuse. Accordingly, we decline to reduce the number of VEs who must administer an amateur operator license examination. Moreover, to the extent that the availability of examination opportunities in some areas has been limited by the three-VE requirement, that concern is ameliorated by our decision described below to permit remote testing.<sup>54</sup>

## 2. Remote testing

20. *Background.* Our rules require that each administering VE be present and observing the examinee throughout the entire examination. In the years since the VE system was established, remote testing methods have been developed, including audio and video links, either hard-wired to a site or available through Internet or satellite technologies, which would allow a VE team to observe an examinee from afar. Such methods are commonly used by educational institutions to provide classes, by businesses for teleconferencing among numerous locations simultaneously, and to provide myriad services to consumers. In the *NPRM*, the Commission sought comment on whether to amend Section 97.509(c) to provide that, at the option of the administering VEs and the VEC coordinating the examination session, the VEs may be "present and observing" an examinee for purposes of the rule when they are using an

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<sup>47</sup> See Amendment of Parts 0, 1, and 97 of the Commission's Rules to allow the use of volunteers to prepare and administer operator examinations in the amateur radio service, *Report and Order*, PR Docket No. 83-27, 95 F.C.C. 2d 14, 17 ¶ 12 (1983).

<sup>48</sup> See *NPRM*, 27 FCC Rcd at 12588 ¶ 18.

<sup>49</sup> See *id.* at 12589 ¶ 20.

<sup>50</sup> See *id.* The Commission noted that the VECs have developed procedures that have almost eliminated examination grading and application completion errors, and that fraud or abuse has been minimal. See *id.* at 12589 ¶ 19.

<sup>51</sup> See, e.g., Comments of ARRL at 4; Reply Comments of W5YI-VEC at 2-3; Comments of Stephen Reinen at 4.

<sup>52</sup> See, e.g., Comments of CQ Communications at 5.

<sup>53</sup> See Comments of Comments of John Douglas Lamb at 2; Comments of Darryl Stout at 1.

<sup>54</sup> Some commenters suggest that examination opportunities could be expanded by eliminating the requirement that VEs hold a higher class of license than the class of license for which the examination is being administered (except Element 4 examinations), 47 C.F.R. § 97.509(b). See, e.g., Comments of Douglas Iford at 1. We note, however, that this requirement is statutory, and cannot be eliminated by rulemaking. See 47 U.S.C. § 154(f)(4)(A).

audio and video system that can assure the proper conduct and necessary supervision of each examination.<sup>55</sup>

21. *Decision.* Allowing VEs and VECs the option of administering examination at locations remote from the VEs is warranted. Most commenters support amending the rules to allow remote testing. We disagree with the commenters who oppose the proposal on the grounds that there is no need for remote testing<sup>56</sup> or that we should undertake a pilot program and revisit this issue in the future.<sup>57</sup> Rather, we agree with most commenters that remote testing that maintains the integrity of the examination process is feasible,<sup>58</sup> and can bring amateur radio licensing opportunities to applicants in isolated locations,<sup>59</sup> and we amend Section 97.509(c) accordingly.

22. We will not incorporate into the rules specific requirements or conditions for remote testing.<sup>60</sup> No VEC or VE will be required to conduct remote testing. Because such testing is optional and can only be done if a VEC agrees to coordinate the examination session,<sup>61</sup> VECs may coordinate sessions only if they are certain that remote testing can assure the proper conduct and necessary supervision of the examination session.<sup>62</sup> The mechanics involved in remote testing will vary from location to location and session to session, and specific rules regarding how to administer such examinations could limit the flexibility of VEs and VECs. Finally, we amend Section 97.509(h) of the Commission's Rules<sup>63</sup> to provide that the administering VEs must grade examinations from a remote testing session "at the earliest practical opportunity" (rather than "immediately" as the rule requires for conventional examination sessions), given that immediate scoring may not be possible depending on how the VEs implement remote testing.<sup>64</sup>

23. While we decline to adopt specific rules applicable to remote testing or rules limiting where such testing should be permitted, we emphasize that the obligation under our rules of VECs and VEs to administer examinations responsibly applies in full to remote testing. In the event that their remote administration compromises the examination process, VECs can decertify VEs and we can terminate our agreements with VECs.<sup>65</sup>

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<sup>55</sup> See *NPRM*, 27 FCC Rcd at 12589 ¶ 22. It also sought comment on what, if any, specific requirements should be incorporated into the rule and whether remote testing should be permitted everywhere or only for examination sessions at less accessible locations.

<sup>56</sup> See Comments of ARRL at 20.

<sup>57</sup> See Comments of CQ Communications at 5.

<sup>58</sup> See, e.g., Comments of John Douglas Lamb at 2.

<sup>59</sup> See, e.g., Comments of James Edwin Whedbee at 7.

<sup>60</sup> We note, however, that, consistent with both the proposal made in the *NPRM* and the testing rule in its original form, the requirement that the administering VE "observe" the examinee – whether the test is administered remotely or in person – entails the ability to see and hear the examinee as he or she takes the test.

<sup>61</sup> See 47 C.F.R. § 97.519(a).

<sup>62</sup> See 47 C.F.R. § 97.519(b)(2) (VECs must resolve all discrepancies and verify that the VEs' certifications are correct).

<sup>63</sup> See 47 C.F.R. § 97.509(h).

<sup>64</sup> See Additional Comments of James B. Wiley at 2. We decline Mr. Wiley's suggestion, *id.* at 4, to amend Section 97.509(l), 47 C.F.R. § 97.509(h) ("The administering VEs must issue a CSCE to an examinee who scores a passing grade on an examination element."), because the existing rule language accommodates his contemplated procedures.

<sup>65</sup> See Amendment of Part 97 of the Commission's Rules to Implement WRC-03 Regulations Applicable to Requirements for Operator Licenses in the Amateur Radio Service, *Notice of Proposed Rule Making and Order*, WT Docket No. 05-235, 20 FCC Rcd 13247, 13269 ¶ 46 (2005).



### C. Emission Types

24. *Background.* Part 97 of the Commission's Rules specifies the emission types<sup>66</sup> that amateur stations are authorized to transmit.<sup>67</sup> In 2011, ARRL filed a petition for rulemaking requesting that Sections 97.3(c) and 97.307(f)(8) of the Commission's Rules be amended to authorize certain Time Division Multiple Access (TDMA) emissions.<sup>68</sup> It noted that amateur service licensees had established narrowband UHF repeater facilities using TDMA repeaters and transceivers that utilize emission type FXE for voice operation and FXD for data operation, but the present rules do not appear to permit amateur stations to transmit such emissions. In the *NPRM*, the Commission proposed to amend Section 97.3(c)(5) to allow emission type FXE as a phone emission and to amend Section 97.307(f)(8) to allow emission type FXD as a data emission.<sup>69</sup> It concluded that this would encourage individuals who can contribute to the advancement of the radio art to more fully utilize TDMA technologies in experimentation and promote more efficient use of amateur radio spectrum.<sup>70</sup> The Commission also sought comment on whether any other specific emission types, such as F7E, should be permitted.<sup>71</sup>

25. Subsequently, the Wireless Telecommunications Bureau granted a request by ARRL for a temporary blanket waiver to permit amateurs to transmit emissions with emission designators FXD, FXE, and F7E pending resolution of the rulemaking petition.<sup>72</sup> Since that time, we have not received any interference complaints and are not aware of any interference concerns.

26. *Decision.* Commenters strongly support amendment of the rules to permit these additional emission types. The purpose of specifying emission designators for the amateur service is to relegate the transmission of certain inharmonious emission types to different segments of the frequency bands,<sup>73</sup> while still allowing great flexibility in the types of emissions that may be transmitted by amateur stations.<sup>74</sup> The commenters assert that the proposed rule change "is consistent with the basis and purpose

<sup>66</sup> An emission designator describes an emission's characteristics. A minimum of three symbols is used to describe the basic characteristics of the radio emission. See 47 C.F.R. § 2.201. The first symbol designates the type of modulation. For example, F is used for frequency modulation. The second symbol designates the nature of the signal modulating the main carrier. For example, 7 is used for two or more channels containing quantized or digital information. The third symbol designates the type of information to be transmitted. For example, D is used for data transmission, and E is used for telephony. Where the nature of the signal modulating the main carrier or the type of information to be transmitted is not specifically listed in Section 2.201, the second or third symbol is X. See 47 C.F.R. § 2.201(c)(7), (d)(9).

<sup>67</sup> For telephony (speech and other sound emissions), emission types may have A, C, D, F, G, H, J, or R as the first symbol; 1, 2, or 3 as the second symbol; and E as the third symbol. See 47 C.F.R. § 97.3(c)(5). Permissible phone emission types also include speech emissions having B as the first symbol; 7, 8, or 9 as the second symbol; and E as the third symbol. *Id.* For data (telemetry, telecommand and computer communications), emission types may have A, C, D, F, G, H, J or R as the first symbol; 1 as the second symbol; and D as the third symbol. See 47 C.F.R. § 97.3(c)(2). Permissible data emission types also include J2D and (under certain conditions) A1C, F1C, F2C, J2C, and J3C. *Id.* In addition, a 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. 47 C.F.R. § 97.307(f)(8).

<sup>68</sup> See ARRL Petition at 5.

<sup>69</sup> See *NPRM*, 27 FCC Rcd at 12591 ¶ 28.

<sup>70</sup> See *id.*

<sup>71</sup> See *id.*

<sup>72</sup> See American Radio Relay League, Inc., *Order*, 28 FCC Rcd 3228 (WTB MD 2013).

<sup>73</sup> See Reorganization and Deregulation of Part 97 of the Rules Governing the Amateur Radio Services, *Notice of Proposed Rule Making*, PR Docket No. 88-139, 3 FCC Rcd 2076, 2078 ¶ 19 (1988).

<sup>74</sup> See Reorganization and Deregulation of Part 97 of the Rules Governing the Amateur Radio Services, *Report and Order*, PR Docket No. 88-139, 4 FCC Rcd 4719, 4719 ¶ 2, 4720 ¶ 9 (1989).

of the amateur service,” and will allow “reapplication [in the amateur service] of surplus mobile relay equipment from other radio services.”<sup>75</sup> They also assert that expressly permitting the use of emission types FXD, FXE, and F7E would “remove[] an ambiguity in Part 97 concerning the use of single slot TDMA technology” and “enable and encourage the adoption of spectrally efficient narrowband technology.”<sup>76</sup> Allowing amateur stations to transmit these emission types is consistent with the basis and purposes of the amateur service,<sup>77</sup> and we revise Sections 97.3(c) and 97.307(f)(8) to permit the use of emission types FXD, FXE, and F7E for the reasons set forth in the *NPRM*.<sup>78</sup>

#### D. Conforming Rule Changes

27. Finally, we make certain minor, non-substantive amendments to the amateur service rules. As proposed in the *NPRM*,<sup>79</sup> we amend Sections 97.307, 97.507, and 97.509 of the Commission’s Rules<sup>80</sup> to reflect that the Commission amended its rules to eliminate the requirement that certain amateur radio service licensees pass a Morse code examination.<sup>81</sup> In addition, we correct certain typographical or other errors in the amateur service rules.<sup>82</sup>

#### IV. CONCLUSION

28. In summary, the public interest will be served by revising the amateur service rules to grant partial examination credit for certain expired amateur operator licenses, to permit examinations to be administered remotely, and to permit amateur stations to use technologies that stations in other services are allowed to use. Changes in these rules will allow amateur service licensees to better fulfill the purposes of the amateur service and will enhance the usefulness of the amateur service. We therefore adopt these rule changes.

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<sup>75</sup> See, e.g., Comments of Joseph P. Speroni at 6; Comments of Dr. Benjamin J. Franske at 3; Comments of W. Lee McVey at 8-9.

<sup>76</sup> See Comments of Robert Witte at 1; see also Comments of Walter T. Loughney, Jr., at 2; ARRL Comments at 24 (emission type F7E should also be authorized).

<sup>77</sup> The purposes of the amateur radio service include contributing to the advancement of the radio art and assisting the public, particularly with respect to emergency communications. See 47 C.F.R. § 97.1(a), (b).

<sup>78</sup> We will not adopt the suggestion that amateur stations be allowed to transmit emission type FXD “only if our Amateur Auxiliary volunteer maintenance monitors have the capability of determining from their activity whether or not such radio communications are consistent with the statutory purpose . . .” of the amateur service. See Comments of John B. Johnston at 3. Our rules do not require amateur auxiliary stations to have any particular monitoring capabilities.

<sup>79</sup> See *NPRM*, 27 FCC Rcd at 12590 ¶ 23.

<sup>80</sup> 47 C.F.R. §§ 97.307, 97.507, 97.509.

<sup>81</sup> See Amendment of Part 97 of the Commission’s Rules to Implement WRC-03 Regulations Applicable to Requirements for Operator Licenses in the Amateur Radio Service, *Report and Order and Order on Reconsideration*, WT Docket No. 05-235, 21 FCC Rcd 14797 (2006). Most of these rule changes were adopted in that rulemaking proceeding, see *id.* at 14816-17, but were inadvertently omitted from the Federal Register summary, see 72 Fed. Reg. 3081 (2007).

<sup>82</sup> Specifically, we correct the title of Section 97.7 of the Rules, 47 C.F.R. § 97.7, from “Control operation required” to “Control operator required;” correct Section 97.21(c), 47 C.F.R. § 97.21(c), to cross-reference paragraph (a)(3) instead of non-existent paragraph (a)(4); correct the phrase “control station operator” to “station control operator” in Section 97.113(a)(3)(i), 47 C.F.R. § 97.113(a)(3)(i); insert a missing word (“functions”) to Section 97.513(b), 47 C.F.R. § 97.513(b) (“The VE session manager may carry on liaison between the VE team and the coordinating VEC.”); and relocate a misplaced apostrophe in Section 97.519(b)(2), 47 C.F.R. § 97.509(b)(2). These amendments make minor corrections to language that was adopted in prior Commission decisions. We therefore find good cause to adopt these amendments without notice and comment. See 5 U.S.C. § 553(b)(B).

## V. PROCEDURAL MATTERS

29. *Final Regulatory Flexibility Analysis.* The Regulatory Flexibility Act (RFA)<sup>83</sup> requires a final regulatory flexibility analysis to be prepared for notice and comment rulemaking proceedings, unless the agency certifies that “the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities.”<sup>84</sup> The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”<sup>85</sup> In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.<sup>86</sup> A “small business concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).<sup>87</sup>

30. In the *NPRM*, the Commission certified that the rules it proposed to adopt in this proceeding would not have a significant economic impact on a substantial number of small entities.<sup>88</sup> No comments were received concerning the proposed certification. For the reasons stated below, we certify that the rules adopted herein will not have a significant economic impact on a substantial number of small entities.<sup>89</sup>

31. The *NPRM* certified that no regulatory flexibility analysis was required because the promulgation of the proposed rule amendments would not create a significant economic impact on a substantial number of small entities because the rules would apply exclusively to individuals, including some that may be trustees of amateur radio club stations.<sup>90</sup> We note, however, that while a club may be a small entity, the person responsible for the proper operation of the station is the trustee and/or the station control operator, both of whom are individuals. The rules we are adopting relate to the administration of the amateur radio service. Therefore, we certify that the rule changes adopted in this *Report and Order* will not have a significant economic impact on a substantial number of small entities. The Commission will send a copy of the *Report and Order*, including a copy of this Final Regulatory Flexibility Certification, to the Chief Counsel for Advocacy of the SBA.<sup>91</sup> This final certification will also be published in the Federal Register.<sup>92</sup>

32. *Paperwork Reduction Act Analysis.* This *Report and Order* does not contain new or modified information collection(s), subject to the Paperwork Reduction Act of 1995, Public Law 104-13. In addition, because businesses are not eligible for licensing in the amateur radio service, the *Report and*

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<sup>83</sup> See 5 U.S.C. § 603. The RFA, see 5 U.S.C. § 601–612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

<sup>84</sup> See 5 U.S.C. § 605(b).

<sup>85</sup> See 5 U.S.C. § 601(6).

<sup>86</sup> See 5 U.S.C. § 601(3) (incorporating by reference the definition of “small business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

<sup>87</sup> See 15 U.S.C. § 632.

<sup>88</sup> See *NPRM*, 27 FCC Rcd at 12592 ¶ 32.

<sup>89</sup> See 5 U.S.C. § 605(b).

<sup>90</sup> See *NPRM*, 27 FCC Rcd at 12592 ¶ 32.

<sup>91</sup> See 5 U.S.C. § 605(b).

<sup>92</sup> See *id.*

*Order* it does not contain any proposed new or modified “information collection burden for small business concerns with fewer than 25 employees,” pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. § 3506(c)(4).

33. *Congressional Review Act.* The Commission will send a copy of this *Report and Order* to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. § 801(a)(1)(4).

34. *Alternative Formats.* To request materials in alternative formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to <[FCC504@fcc.gov](mailto:FCC504@fcc.gov)> or call the Consumer and Governmental Affairs Bureau at (202) 418-0530 (voice), (202) 418-0432 (TTY). This *Report and Order* also may be downloaded from the Commission’s web site at <<http://www.fcc.gov/>>.

35. For further information, contact William T. Cross, Mobility Division, Wireless Telecommunications Bureau, (202) 418-0680 or TTY at (202) 418-7233.

## VI. ORDERING CLAUSES

36. IT IS ORDERED, pursuant to Sections 4(i), 303(r), and 403 of the Communications Act of 1934, 47 U.S.C. §§ 154(i), 303(r), and 403, that this *Report and Order* IS HEREBY ADOPTED.

37. IT IS FURTHER ORDERED that Part 97 of the Commission’s Rules IS AMENDED as set forth in the Appendix, effective 30 days after publication in the Federal Register.

38. IT IS FURTHER ORDERED that the Commission’s Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this *Report and Order*, including the Final Regulatory Flexibility Certification, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch  
Secretary

**APPENDIX****Final Rules**

Chapter 1 of Title 47 of the Code of Federal Regulations is amended as follows:

Part 97 - Amateur Radio Service

1. The authority citation for part 97 continues to read as follows:

**Authority:** 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303. Interpret or apply 48 Stat. 1064-1068, 1081-1105, as amended; 47 U.S.C. 151-155, 301-609, unless otherwise noted.

2. Section 97.3 is amended by revising paragraph (c)(5) to read as follows:

**§ 97.3 Definitions.**

\* \* \* \* \*

(c) \* \* \*

(5) Phone. Speech and other sound emissions having designators with A, C, D, F, G, H, J or R as the first symbol; 1, 2, 3 or X as the second symbol; E as the third symbol. Also speech emissions having B or F as the first symbol; 7, 8 or 9 as the second symbol; E as the third symbol. MCW for the purpose of performing the station identification procedure, or for providing telegraphy practice interspersed with speech. Incidental tones for the purpose of selective calling or alerting or to control the level of a demodulated signal may also be considered phone.

\* \* \* \* \*

3. Section 97.7 is amended by revising the title to read as follows:

**§ 97.7 Control operator required.**

\* \* \* \* \*

4. Section 97.21 is amended by revising paragraph (c) to read as follows:

**§ 97.21 Application for a modified or renewed license grant.**

\* \* \* \* \*

(c) Except as provided in paragraph (a)(3) of this section, a call sign obtained under the sequential or vanity call sign system will be reassigned to the station upon renewal or modification of a station license.

5. Section 97.113 is amended by revising paragraph (a)(3)(i) to read as follows:

**§ 97.113 Prohibited transmissions.**

(a) \* \* \*

(3) \* \* \*

- (i) A station licensee or station control operator may participate on behalf of an employer in an

emergency preparedness or disaster readiness test or drill, limited to the duration and scope of such test or drill, and operational testing immediately prior to such test or drill. Tests or drills that are not government-sponsored are limited to a total time of one hour per week; except that no more than twice in any calendar year, they may be conducted for a period not to exceed 72 hours.

\* \* \* \* \*

6. Section 97.307 is amended by revising paragraphs (f)(8) and (f)(10) to read as follows:

**§ 97.307 Emission standards.**

\* \* \* \* \*

(f) \* \* \*

(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, 9 or X as the second symbol; and D or W as the third symbol is also authorized.

\* \* \*

(10) A station having a control operator holding a Novice Class operator license or a Technician Class operator license may only transmit a CW emission using the international Morse code or phone emissions J3E and R3E.

\* \* \* \* \*

7. Section 97.505 is amended to read as follows:

**§ 97.505 Element credit.**

(a) The administering VEs must give credit as specified below to an examinee holding any of the following license grants:

<i>Operator class</i>	<i>Unexpired (or within the renewal grace period)</i>	<i>Expired and beyond the renewal grace period</i>
Amateur Extra	Not applicable	Elements 3 and 4
Advanced General Technician granted before March 21, 1987	Elements 2 and 3	Element 3
Technician Plus Technician granted on or after March 21, 1987	Element 2	No credit

(b) The administering VEs must give credit to an examinee holding a CSCE for each element the CSCE indicates the examinee passed within the previous 365 days.

8. Section 97.507 is amended by removing paragraph (d) and revising paragraphs (a) and (c) to read as follows:

**§ 97.507 Preparing an examination.**

(a) Each written question set administered to an examinee must be prepared by a VE holding an Amateur Extra Class operator license. A written question set may also be prepared for the following elements by a VE holding an operator license of the class indicated:

\* \* \* \* \*

(c) Each written question set administered to an examinee for an amateur operator license must be prepared, or obtained from a supplier, by the administering VEs according to instructions from the coordinating VEC.

9. Section 97.509 is amended by removing and reserving paragraph (g), and revising paragraphs (c), (f) and (h) to read as follows:

**§ 97.509 Administering VE requirements.**

\* \* \* \* \*

(c) Each administering VE must observe the examinee throughout the entire examination. The administering VEs are responsible for the proper conduct and necessary supervision of each examination. The administering VEs must immediately terminate the examination upon failure of the examinee to comply with their instructions.

\* \* \* \* \*

(f) No examination that has been compromised shall be administered to any examinee. The same question set may not be re-administered to the same examinee.

(g) [Reserved]

(h) Upon completion of each examination element, the administering VEs must immediately grade the examinee's answers. For examinations administered remotely, the administering VEs must grade the examinee's answers at the earliest practical opportunity. The administering VEs are responsible for determining the correctness of the examinee's answers.

\* \* \* \* \*

10. Section 97.513 is amended by revising paragraph (b) to read as follows:

**§ 97.513 VE session manager requirements.**

\* \* \* \* \*

(b) The VE session manager may carry on liaison functions between the VE team and the coordinating VEC.

\* \* \* \* \*

11. Section 97.519 is amended by revising paragraph (b)(2) to read as follows:

**§ 97.519 Coordinating examination sessions.**

\* \* \* \* \*

(b) \* \* \*

(2) Resolve all discrepancies and verify that the VEs' certifications are properly completed; and

\* \* \* \* \*