

Before the
Federal Communications Commission
Washington, D. C. 20554

PR Docket No. 90-55

**In the matter of
Amendment of Part 97 of the
Commission's Rules Concerning
the Establishment of a Codeless
Class of Amateur Operator License**

RM-6984 RM-6985
RM-6986 RM-6987
RM-6988 RM-6989
RM-6990 RM-6991
RM-6992 RM-6993
RM-6994 RM-6995

REPORT AND ORDER

Adopted: December 13, 1990; Released: December 27, 1990

By the Commission:

I. INTRODUCTION

1. On February 8, 1990, we adopted a Notice of Proposed Rule Making (Notice) [1] in the above-captioned proceeding. In the Notice, we proposed to establish a new class of amateur operator license (codeless class) that would not require applicants to prove that they can send and receive texts in Morse Code telegraphy signals. [2]
2. In response to the Notice, we received over 1,100 comments and 12 reply comments from individuals and organizations. The comments are generally supportive of an entry level codeless class. They differ widely, however, in support for the proposed license requirements, operator privileges, and license class structure. This Report and Order adopts the rules for a new codeless class license as proposed in the Notice with the changes discussed below.

II. BACKGROUND

3. The International Radio Regulations require that persons seeking a license to operate an amateur station prove that they have the ability to send correctly by hand and to receive correctly by ear text in Morse code telegraphy signals. [3] Although this requirement may be waived for an operator of a station transmitting exclusively on frequencies above 30 MHz, [4] each of the five classes of operator licenses currently issued by the Commission requires the applicant to pass an examination in the international Morse Code. [5]
4. Over the years, we have received many requests from persons who argue that proficiency in telegraphy is an unreasonable barrier to obtaining an amateur operator license. When we proposed codeless classes previously, [6] nevertheless, the amateur community strongly objected. Lately, however, the sentiment of the amateur community appears to favor at least an entry level codeless license class. As a result, our Notice proposed to reprogram resources from processing applications for new Novice and Technician Class licenses to processing applications for licenses for a new entry level codeless class.
5. In the Notice, we stated the three fundamental objectives that we have with respect to the proposed codeless class. Our first objective is to offer an entry level operator license opportunity to otherwise qualified persons who find the telegraphy requirement a barrier to pursuing the purpose of the amateur service. [7] Our second objective is to establish a type of license that can be implemented promptly. Our

third objective is to avoid negative effects upon current licensees, upon the work of the volunteer examiners (VEs), or upon the Commission's workload and resources.

6. In the Notice, we proposed to add a new entry level codeless "Communicator Class" operator license in lieu of the existing Novice and Technician Classes of licenses. We also proposed to grandfather current Novice and Technician Class operator licenses indefinitely. The operator privileges proposed included all authorized emission types, a maximum transmitter power of 200 watts peak envelope power, and authorization to transmit on amateur service frequency bands above 30 MHz with the exception of the 2 meter and 6 meter bands.

III. DISCUSSION

7. Approximately seventy percent of the comments to this proceeding favor at least an entry level codeless license. Some of these comments, however, advance proposals that go beyond establishing a single codeless class. [8] Other supporting comments suggest alternatives that would have undesirable effects upon present licensees. [9] Still other supporting comments suggest alternatives that would have unacceptable effects upon the VEs and the Commission's workloads. [10] The remaining thirty percent of the comments object to any form of codeless license. [11] In the paragraphs below, we address in detail the issues raised in the Notice and comments.

A. Need for codeless class

8. Proposal. Our Notice was issued in response to twelve petitions for rule making calling for codeless license classes. We observed that a significant segment of the amateur community appeared to have a new view of the role of telegraphy in the future of the amateur service. [12] We also stated that this was a propitious time to propose the establishment of an entry level codeless class, given the advances in electronic communications in the past few years. [13]

9. Comments. Among those affirming the need for a codeless class is the Quarter Century Wireless Association (QCWA) whose comments state that "[m]any QCWA members have a lifetime history of operating with, and a sentimental attachment to, use of the Morse code. It is understandable that some may not be overly enthusiastic in endorsing changes in licensing procedures which would delete the requirement of proficiency in this traditional mode of communication. Nonetheless, after consideration of the facts associated with licensing trends, we have concluded that the blanket code proficiency requirement may be a major cause of decline in the entry of many people into the Amateur Radio Service. Given this conclusion and in recognition of our responsibility to the public interest, we are agreed that a blanket Morse code requirement for entry into the Amateur Radio Service can no longer be justified." [14]

10. The American Radio Relay League, Inc. (ARRL) states that our objectives in this proceeding are basically sound and are consistent with its own rationale for the creation of a codeless class. [15] An ARRL study committee has concluded that the perception of the Morse telegraphy requirement filtered out too many desirable and technically qualified operators who have not recognized the value of manual telegraphy as a means of practical communication. [16]

11. The National Conference of Volunteer Examiner Coordinators (NCVEC) states that it found ample evidence that the Morse telegraphy requirement is no longer essential to an entry level amateur operator license. [17] The Amateur Radio Industry Group (ARIG), another codeless class supporter, states that "[a]mateur radio has evolved from a hobby of tinkerers and telegraphers into a service of communicators... [T]he Morse code requirement at the entry level is a carryover from the origins of amateur radio which today may be preventing many interested and otherwise qualified persons from entering the Amateur Radio Service." [18]

12. The opposing comments hold that telegraphy skill is absolutely required for any participation in the amateur service. Their arguments are generally based upon claims for telegraphy as a superior communications medium and for telegraphers as model radio operators. Representative comments are as follows: "Morse code is the most effective means of communicating and the only one which can be

used under the most adverse conditions." [19] "All hams must be prepared to use code in an emergency situation." [20] "We do not desire to have individuals join our ranks that would have us lower our standards." [21] Another argument is based on the need to maintain tradition. "I had to take the code when I got my ticket, so why should someone else pass the code up?" [22] "I believe everyone should be blessed with the glory of learning code before operating in the amateur frequency spectrum." [23]

13. Discussion. The comments clearly confirm that the amateur community is undergoing a dramatic shift in sentiment concerning the value of Morse Code as an entry level license requirement. For the amateur service to achieve its purpose it must have the participation of as many qualified persons as possible who desire to pursue that purpose. Modern commercial and military electronic systems require engineers to design them, technicians to install and maintain them, and a technologically literate citizenry that can use them. The amateur service should, as it has in the past, attract technically inclined persons, particularly the youth of our country, and encourage them to learn and to prepare themselves where the United States needs expertise. We do not foresee that telegraphers will be in as great demand by future systems as will electronics and communications experts.

14. Telegraphy skill has been required for each person who has ever been issued an amateur operator license in the United States, including the current 493,000 licensees. Mastering the Morse Code was an arduous task for many of these licensees, and by developing their telegraphy skills they expressed their intense desire to become amateur operators. It is understandable, therefore, that there are licensees who are reluctant to share the amateur service frequencies with new licensees who have not made a similar effort to master the Morse code. We conclude, however, that telegraphy skill is not so essential to proper operation of a station that transmits exclusively above 30 MHz such as to justify turning away otherwise qualified persons who do not possess the skill. The Notice, furthermore, did not propose to delete the telegraphy skill requirement for a licensee to be the control operator of a station transmitting below 30 MHz where telegraphy communications take place extensively and worldwide communications are possible. The sharing of frequencies between codeless class licensees and other licensees can take place on frequency bands above 30 MHz where telegraphy operation is minimal and where the transmission of the more modern emission types such as data, image, phone, pulse, RTTY, and spread spectrum, predominate. [24]

15. We do not concur with the comments alleging that the passing of a telegraphy examination is an indication of the examinee's good character, high intelligence, cooperative demeanor, or willingness to comply with our rules. [25] These traits are also found in individuals who have not passed a telegraphy examination rather than being exclusive to those who have passed such a test. For regulatory purposes, passing a telegraphy examination is no more and no less than proof of the examinee's ability to send and receive texts in Morse code at some specified rate. With respect to comments that make claims for the superiority of telegraphy over other types of communications, we do not consider these arguments as germane to this proceeding. The Notice did not propose to discontinue the authorization of telegraphy CW emission types on any amateur service frequency. The amateur service in the future, as it has in the past, can provide to those who personally desire to do so the opportunity to communicate by telegraphy.

16. We are adopting rules, therefore, that implement the codeless license option provided in the international Radio Regulations. These new rules offer a codeless class of license that authorizes control operator privileges at stations which transmit exclusively above 30 MHz. This satisfies our objective of providing an entry level opportunity to otherwise qualified persons who find telegraphy a barrier to pursuing the purposes of the amateur service.

B. Operator License structure

17. Proposal. Our Notice proposed to add a new codeless class in a simplified license structure containing four ascending steps, new codeless Communicator, General, Advanced, and Amateur Extra Classes. There would also be, in effect, a "Communicator Plus CSCE" [26] operator class which recognized that some Communicator Class licensees hold a CSCE showing the licensee has passed an international Morse code test but which would not require additional license processing resources. The codeless class would be the first step in the license structure instead of the Novice Class. We stated that this structure could be rapidly implemented because the present license processing system and application form would continue to be used. Our Notice, however, particularly asked the amateur

community to consider carefully the alternative of preserving the existing five-step ladder by simply eliminating the telegraphy examination requirement from the Novice Class license.

18. Comments. In general, the comments object to the proposal to discontinue issuing new Novice and Technician Class licenses. The NCVEC, in particular, stresses that the volunteer-examiner coordinators (VECs) desire that the existing license structure should be preserved to the maximum extent possible. It proposes the addition of a sixth class of license, although "[t]he VECs recognize that [this] position is not resource neutral ... This does not mean, however, the VECs would be any less in favor of a codeless license if the Communicator Class could only be implemented in place of one or more other classes." [27]

19. The QCWA states that another operator license class is unnecessary. It contends that the codeless class can be best implemented by simply removing the telegraphy requirement from the Technician Class operator license and modifying its privileges to comply with the International Radio Regulations. [28] The ARRL maintains, however, that there should be two paths of initial entry into the amateur service, (a) the current code-required Novice Class and (b) a new codeless class. The ARRL acknowledges, however, that the resulting "six classes of amateur license are, for the long term, perhaps an overly complex scheme, (but) the matter can be revisited in the future, after the Amateur Radio Service has had some experience with, and becomes adjusted to, the now new concept of a codeless license class." [29]

20. Our inquiry concerning the desirability of conversion of the Novice Class into a codeless class was not supported generally. The ARRL states that a codeless class would not be a suitable substitute for the Novice Class as an entry level license. It adds that closing off the telegraphy "route of entry for the Service would in fact stifle a large percentage of the newcomers to the Service." [30] The NCVEC reports that a survey of VEs shows that "[m]any newcomers would still prefer to obtain a Novice Class license, which is also the least expensive path into amateur radio." [31] The QCWA "also urges that the Novice Class license ... be continued ... [as] a route for the person who finds little difficulty with a Morse code requirement but lacks the extensive skills and technical knowledge required by the Technician Class examination." [32]

21. Discussion. The addition of a sixth class of license to an already intricate license structure is neither desirable nor achievable without unacceptable effects upon our workload. Even if there were no increase in the number of new licensees, adding a sixth license class would result in an increased demand for license application processing; most newcomers to the amateur service initially obtain the lowest class of license and those who subsequently advance to the higher license classes usually do so one class at a time.

22. The disadvantages of a sixth license class are further compounded by the nature of our computer-aided application processing system. On further investigation, we have determined that our present computer system will not support six classes of licenses without new and significant expenditures of resources. The additional work to modify the system to have the capability of supporting the processing for a sixth class of license is inconsistent with our objective of limiting impact on our workload and resources. A new Communicator Class of license, consequently, is not a viable solution. The codeless class, therefore, must be incorporated into the present license structure.

23. Because it requires the least difficult written examination, the option of converting the Novice Class to a codeless class is not a solution generally supported by the commenters. The Novice Class, moreover, has very limited privileges above 30 MHz. [33] The Technician Class, however, has a more difficult written examination and authorizes all privileges above 30 MHz. The conversion of the Technician Class to a codeless class, as allowed by the international Radio Regulations and as recommended by QCWA and other commenters, [34] therefore, is the logical choice. Approximately ten percent of new licensees already enter the service at the Technician Class level. [35] The 126,543 current Technician Class licensees, however, are also authorized the same limited privileges as Novice Class operators below 30 MHz on the basis of having passed a telegraphy examination. To achieve our goal of avoiding any negative effects upon current licensees, therefore, we can make provisions in the rules for these licensees to retain all of their current privileges. [36]

24. We are, accordingly, establishing the Technician Class as the codeless class of license that includes all amateur privileges above 30 MHz. We are amending Section 97.301(c), however, to grandfather

frequency privileges below 30 MHz to current Technician Class licensees as well as to authorize these privileges to those holding a Technician Class license issued on or after February 14, 1991, who pass a telegraphy examination. [37] This satisfies our objectives of establishing a type of codeless class of license that can be implemented promptly and avoiding negative effects upon the work of the VEs or upon our workload and resources.

C. License requirements

25. Proposal. The Notice proposed to require applicants for the codeless class of license to pass a sixty question written examination. Thirty questions would be drawn from the current Element 2 question pool, twenty-five questions would be drawn from the current Element 3(A) question pool, [38] and five questions would be drawn from a new pool. In effect, applicants for the new codeless class would be required for the current Technician Class license, plus five additional questions.

26. Comments. The ARRL comments support our proposal and state that the five additional questions should concern operating practices. [39] Other comments call for even more written questions. [40] Still others recommend fewer written questions. [41] The NCVEC, however, points out that the only purpose of testing is to assure that the licensees are qualified to operate amateur stations on the frequencies authorized for the class of license held. [42] It recommends that the codeless class license requirement be the passing of the existing Element 2 and 3(A) examinations. [43]

27. Discussion. As pointed out by NCVEC, the written examination is administered solely to determine if the examinee possesses the operational and technical qualifications required by a station operator to perform properly the duties associated with the privileges of the license sought. [44] Our rules require that each examination question set administered to an examinee must use questions taken from the applicable question pool [45] and each pool must contain at least ten times the number of questions for a single examination. [46] The question pools for Elements 2 and 3(A), therefore, should already contain questions that test whether an examinee has the requisite qualifications to perform properly the operator duties at an amateur station transmitting exclusively above 30 MHz. We are not convinced that the addition of five questions is needed to establish the operational and technical qualifications of examinees for licenses having these privileges.

28. Each examinee is responsible for knowing the answers to the entire body of questions in the question pool. In the interest of practical examination administration, however, the VEs ask the examinee only a sample number of questions from the pool and they require a passing grade of approximately 74 percent. [47] When technological advancements, operating trends, or rule amendments alter the duties of a particular class of amateur operator license, the effect of our rules is to require that the VECs revise the question pools accordingly. The deletion of privileges below 30 MHz does not call for an increase in the number of questions posed in the written examination for a Technician Class license. Preparing and administering additional examination questions, moreover, would increase the workload of the VEs and VECs. We decline, therefore, to change the number of questions in the written examination elements required for the Technician Class license.

D. Technician Plus Certificate of Successful Completion of Examination

29. Proposal. The Notice proposed that upon passing a telegraphy examination, a codeless class licensee would be authorized Technician Class privileges below 30 MHz. To avoid an increased license processing burden, our proposal was that the documentation of the passing of the telegraphy examination be indefinitely evidenced by the Certificate of Successful Completion of Examination (CSCE), rather than by the issuance of another license document. [48] Each VEC would be required to provide paper or magnetic listings to the Commission for codeless class licensees who had been issued a CSCE for passing a telegraphy examination.

30. Comments. The NCVEC advises that the VECs could permanently document whether an examinee has passed a telegraphy examination that was administered by VEs, but that use of a CSCE for this purpose would result in enforcement difficulties and would create a record keeping burden. [49] The ARRL adds that use of a CSCE for indefinitely documenting that a licensee has passed a telegraphy examination would be unwieldy. [50]

31. Discussion. The comments of NCVEC and ARRL, in effect, recommend that the documentation showing that a codeless licensee has later passed a telegraphy examination be accomplished by the Commission issuing a sixth class of operator license. The sole purpose of this sixth class would be to distinguish those codeless Technician Class licensees who subsequently pass the five words per minute telegraphy examination from those who have not. In paragraphs 21 and 22, we discussed why the addition of a sixth class of license is impractical.

32. We do not agree that use of the CSCE to indefinitely document the passing of a telegraphy examination would have any significant negative effects in this instance. The VEs and VECs already perform the necessary work. The VEs now issue a CSCE to each successful examinee. The VECs receive from the VEs the application forms and test results for every examination session. The VECs are required to make their examination records available to the Commission. [51]

33. We do not foresee, moreover, that there will be any increase in enforcement difficulty resulting from using the CSCE to document the passing of a telegraphy examination for an indefinite period. Our rules already authorize a licensee holding a CSCE to exercise the rights and privileges of the higher operator class for a period of up to 365 days. [52] This provision has not resulted in any increased enforcement burden. Section 97.301(e) is amended, therefore, to implement our proposal to use the CSCE to document indefinitely the passing of a telegraphy examination for the purpose of authorizing to codeless Technician Class licensees privileges below 30 MHz. We will confer with the VECs to establish a schedule for reporting the call signs and names of "Technician Plus CSCE Class" operators. [53]

E. Novice Class

34. Proposal. The Notice proposed to discontinue issuing new Novice Class operator licenses and to grandfather existing licensees. We particularly invited instructors, VEs and VECs to submit factual information on the time and effort that would be required for persons to prepare for the codeless class written examination as compared to that required for the Novice Class license written and telegraphy examinations.

35. Comments. The few comments that addressed our question generally predict that, given the choice between a five words per minute telegraphy examination or an additional written examination, the numbers of newcomers choosing one over the other would be evenly divided. [54] The other prediction was that most newcomers would find additional questions easier to master. [55] The ARRL states that a codeless class would not substitute for the Novice Class, and that discontinuation of the Novice Class license would stifle a large percentage of the newcomers to the service. [56]

36. Discussion. The comments reveal that the amateur community, while it supports the establishment of a codeless class, is uncomfortable with the prospect of discontinuation of the Novice Class. The Novice Class is generally intended for beginning amateur radio telegraphers to gain actual experience in sending and receiving telegraphy messages. The comments indicate that the amateur community desires to retain the Novice Class license as an entry level for persons who do not have the knowledge to pass the written examination for the Technician Class license, but who can pass a telegraphy examination.

37. The keystone of our proposal was to reprogram resources currently expended in processing new Novice Class licenses annually to processing the new codeless class licenses. Retention of the Novice Class, however, precludes reprogramming all of those processing resources for the new codeless Technician class. We estimate, however, that with our current resources we should be able to process the applications for new Novice and codeless Technician Class licenses. [57] The Rules we are adopting, therefore, retain the Novice Class license.

F. Other matters

38. We are persuaded by the comments [58] that our proposal to use the two-letter station identification indicator system [59] to distinguish stations having Technician Plus CSCE control operators is inconsistent with the call sign assignment policy. It would, in effect, cause the stations of codeless Technician Class operators to be identified with shorter call signs than those having Technician Plus

CSCE operators. Shorter station call signs, however, generally are reserved for the more accomplished higher class operators. Further, in three of the frequency bands below 30 MHz that are authorized to Technician Class operators, only a CW emission type using the international Morse code is authorized. [60] The comments that addressed this situation confirmed our belief that it is improbable that a person who cannot pass at least the very slow speed 5 wpm Morse code examination would even attempt to communicate with other amateur stations by telegraphy. [61] In this situation, therefore, any need to distinguish between stations having Technician Class or Technician Plus Class control operators is subordinate to the need for an efficient identification procedure. We are, therefore, not adopting our proposal. We are, however, editorially revising Section 97.119(e) to clarify the station identification procedure.

IV. CONCLUSION

39. In summary, we have decided to provide a codeless class of operator license by eliminating the telegraphy requirement for the Technician Class. Our objective is to provide an entry level codeless operator license opportunity to persons who desire to pursue the purpose of the amateur service and who can demonstrate they are qualified to operate amateur stations that transmit exclusively above 30 MHz. In view of the comments received, we have also decided to retain the Novice Class operator license in order to provide an alternate entry level operator license opportunity to persons who desire to pursue the purpose of the amateur service and who can pass a telegraphy requirement in place of the more comprehensive written examination requirement for the codeless Technician Class operator license.

V. PAPERWORK REDUCTION ACT

40. The rules adopted herein have been analyzed with respect to the Paperwork Reduction Act of 1980, 44 USC 3501-3520, and found to contain no new or modified form, information collection and/or record keeping, labeling, disclosure, or record retention requirements; and will not increase or decrease burden hours imposed on the public.

VI. ORDERING CLAUSES

41. For the reasons stated above, IT IS ORDERED that effective February 14, 1991, Part 97 of the Commission's Rules, 47 CFR Part 97, IS AMENDED as set forth in the Appendix. Authority for this action is found in Sections 4(i) and 303(c) and (r) of the Communications Act of 1934, as amended. 47 USC 154(i) and 303(c) and (r).

42. IT IS FURTHER ORDERED that this proceeding IS TERMINATED.

FEDERAL COMMUNICATIONS COMMISSION

Donna R. Searcy
Secretary

APPENDIX

Part 97 of Chapter I of Title 47 of the Code of Federal Regulations is amended as follows:

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

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

2. Section 97.119(e) is revised to read as follows:

97.119 Station identification.

* * * * *

(e) When the control operator is a person who is exercising the rights and privileges authorized by 97.9(b) of this Part, an indicator must be included after the call sign as follows:

(1) For a control operator who has requested a license modification from Novice Class to Technician Class: KT;

(2) For a control operator who has requested a license modification from Novice Class or Technician Class to General Class: AG;

(3) For a control operator who has requested a license modification from Novice, Technician, or General Class operator to Advanced Class: AA; or

(4) For a control operator who has requested a license modification from Novice, Technician, General, or Advanced Class operator to Amateur Extra Class: AE.

* * * * *

3. Section 97.301(e) is amended by revising the introductory text preceding the table to read as follows:

97.301 Authorized frequency bands.

* * * * *

(e) For a station having a control operator holding a Novice Class operator license, or a Technician Class operator license plus a CSCE indicating that the person passed element 1(A), 1(B) or 1(C), or a Technician Class operator license issued before February 14, 1991:

* * * * *

4. Section 97.501 is amended by revising the introductory text and paragraph (d) to read as follows:

97.501 Qualifying for an amateur operator license.

An applicant must pass an examination for the issuance of a new amateur operator license and for each change in operator class. Each applicant for the class of operator license specified below must pass, or otherwise receive examination credit for, the following examination elements:

* * * * *

(d) Technician Class operator: Elements 2 and 3(A).

* * * * *

FOOTNOTES

1. 5 FCC Red 880 (1990).
2. Morse code telegraphy emission types are commonly referred to as "CW," the telegraphic abbreviation of the phrase "continuous wave." See Section 97.3(c)(1) of the Commission's Rules, 47 C.F.R. 97.3(c)(1), for a listing of the CW emission types.
3. See No. 2735 of the ITU Radio Regulations (Geneva, 1979) (hereafter international Radio Regulations).
4. Id
5. The license classes are, in ascending steps, Novice, Technician, General, Advanced, and Amateur Extra. The examinations cover three levels of telegraphy skill. They are 5, 13, and 20 words per minute (wpm). The examinee must also pass written examination elements, depending upon the operator license class sought. See sections 97.501 and 97.503 of the Commission's Rules 47 C.F.R. 97.501 and 97.503.
6. See Notice of Proposed Rule Making, Docket No. 20282, 39 Fed. Reg. 44042 (1974) and Notice of Proposed Rule Making, PR Docket No. 83-28, 48 Fed. Reg. 1855 (1983).
7. Section 97.1 of the Commission's Rules, 47 C.F.R. 97.1, expresses the fundamental purpose of the amateur service in the United States in five principles: (a) Recognition and enhancement of the value of the amateur service to the public as a voluntary, noncommercial communication service, particularly with respect to providing emergency communications; (b) Continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art; (c) Encouragement and improvement of the amateur service through rules which provide for advancing skills in both the communication and technical phases of the art; (d) Expansion of the existing reservoir within the amateur service of trained operators, technicians, and electronic experts; (e) Continuation and extension of the amateur's unique ability to enhance international goodwill.
8. For example, see comments of Edward P. Murphy at 1, Janet V. Whitney at 6, Gary Worthington at 1.
9. For example, see comments of Jack Bitzer at 3-4, Gordon Girton at 2-3.
10. For example, see comments of John A. Carroll at 1-9, Scott B. Laughlin at 1, and Gordon Girton at 2.
11. For example see comments of O. D. Williams at 1, Michael Barry at 1, Joint Comment of Thomas A. Geis, Georgann M. Geis, and Frederick R. Geis at 1.
12. Notice at para. 5.
13. Id. at para. 15.
14. QCWA comments at 3.
15. ARRL comments at 6.
16. Id. at 2.
17. Comments of NCVEC at 4.
18. Comment of ARIG at 5.
19. Comment of Alan Kaiser at 1.
20. Comment of Michael C. Migliaccio at 1.

21. Comment of Patrick D. Bouldin at 2.
22. Comment of Joel Dunn at 1.
23. Comment of Donald J. Ray at 1.
24. See Section 97.3(c) of the Commission's Rules, 47 C.F.R. 97.3(c), for a description of and the emission types associated with each of these terms.
25. See para 12, supra.
26. The CSCE (certificate of successful completion of an examination) is a document issued by the VEs to an examinee. It indicates which examination element(s) the examinee has passed. See Sections 97.505(a) and 97.9(b) of the Commission's Rules, 47 C.F.R. 97.505(a) and 97.9(b).
27. NCVEC comments at 9.
28. QCWA comments at 1.
29. ARRL comments at 11.
30. ARRL comments at 8.
31. NCVEC comments at 6.
32. Comments of QCWA at 6. To qualify for a Novice Class operator license, an examinee must pass a 5 wpm telegraphy examination and a thirty question written examination. To obtain a Technician Class operator license, an examinee must pass the Novice Class examination elements and an additional written test of twenty-five questions.
33. Above 30 MHz, Novice Class licensees are authorized privileges on the 222.10-223.91 MHz segment of the 1.25 meter band and the entire 23 centimeter band.
34. For example, see comments of QCWA at 8, Phillip David Howard at 3, Conrad Ekstrom at 1, Jay W. Underdown at 3, and Michael R. Burgin at 1.
35. During fiscal year 1990, of the 26,134 persons who entered the amateur service, 2,617 persons did so by obtaining the Technician Class license.
36. Existing Technician Class licensees are authorized all possible privileges above 30 MHz. Below 30 MHz, these licensees are authorized CW emission privileges in portions of the 80, 40, 15 and 10 meter bands, RTTY and data emissions in the frequency segment 28.100-28.300 MHz, and phone emissions in the frequency segment 28.300-28.500 MHz.
37. For convenience, holders of a Technician Class license issued prior to February 14, 1991, and holders of both a Technician Class license and a CSCE for passing a telegraphy examination are referred to hereafter as "Technician Plus CSCE Class" operators to distinguish them from holders of the codeless Technician Class license only.
38. Element 2 is the fundamental written examination required for every class of amateur operator license. Element 3(A) is a written examination concerning the additional privileges of the Technician Class operator license. See Section 97.503(b) of the Commission's Rules, 47 C.F.R. 97.503(b).
39. ARRL comments at 13. The ARRL proposed that the current twenty-five question Element 3(A) written examination be expanded by five questions and that the current thirty question Element 2 written examination continue as is.

40. For example, see comments of Thomas I. Geiger at 6, William I. Glover at 1, and John C. Thomas at 1.
41. For example, see comments of ARIG at 7, Interstate Repeater Society, Inc., at 3, Michael V. Morrelli at 1, and QCWA at 4.
42. NCVEC comments at 11.
43. NCVEC comments at 8. The current Element 2, 30 question written examination would be reduced by 5 questions and the current Element 3(A), 25 question written examination would be used as in NCVEC's proposal.
44. See Section 97.503(b) of the Commission's Rules, 47 C.F.R. 97.503(b) and Section 303(1) of the Communications Act of 1934, as amended, 47 USC 303(1). See also No. 2736 of the international Radio Regulations.
45. See Section 97.507(b) of the Commission's Rules, 47 C.F.R. 97.507(b).
46. See Section 97.523 of the Commission's Rules, 47 C.F.R. 97.523.
47. See Section 97.503(b) of the Commission's Rules, 47 C.F.R. 97.503(b).
48. Notice at para. 22.
49. Comments of NCVEC at 6.
50. ARRL comments at 13.
51. See Section 97.519 of the Commission's Rules, 47 C.F.R. 97.519.
52. See Section 97.9(b) of the Commission's Rules, 47 C.F.R. 97.9(b). In the case of a codeless Technician Class licensee who holds a CSCE for only a telegraphy element, the 365 day limitation on operator privileges would not apply because the CSCE does not indicate that the licensee has passed the necessary examinations for a higher class operator license.
53. The data base for codeless Technician Class licensees who subsequently pass a telegraphy examination will be incorporated into the amateur service licensee data base when the necessary capability becomes available.
54. Comment of Mark Forbes at 2.
55. Comments of Elvin D. Lytle at 1, National Amateur Radio Association at 5, Douglas N. Stracener at 3.
56. Comments of ARRL, at 8.
57. In fiscal year 1990, the Commission issued 20,704 Novice Class licenses, each of which required the processing of a license application. The Commission also processed 15,468 applications from Novice Class licensees that upgraded to Technician Class, and 2,617 applications from individuals who entered the amateur service by obtaining a Technician Class license.
58. Comments of National Amateur Radio Association at 7.
59. See Section 97.119(e) of the Commission's Rules, 47 C.F.R. 97.119(e), for details of the indicator system.
60. See Section 97.307(f)(9) of the Commission's Rules, 47 C.F.R. 97.307(f)(9).
61. For example, see comments of Thomas I. Geiger at 6.

Source of document

Here's the entire text of the Report and Order in FCC Docket 90-55 (codeless license), as typed in by yours truly from a Xerox of a FAX I received from the ARRL by US Mail. Although I ran this file through a spell checker, I can't certify that every name and number is correct, particularly in the footnotes where a smaller font was used.

--Phil, KA9Q