Before the

Federal Communications Commission

Washington, DC 20554

In the Matter of	)	
	)	WT Docket 98-143
1998 Biennial Review --	)	RM-9148
— Amendment of Part 97	)	RM-9150
of the Commission's	)	RM-9196
Amateur Service rules.	)	

To: The Secretary
Federal Communications Commission

c.c: Chairman William E. Kennard
Commissioner Susan Ness
Commissioner Michael Powell
Commissioner Harold Furchgott-Roth
Commissioner Gloria Tristani

Comments by the National Conference of VECs on Restructuring of the Amateur Service

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EXECUTIVE SUMMARY:

The VECs agree with the assessment of the Federal Communication Commission (Commission) as to the decreasing role of Morse code in modern communications. Amateur radio operator use of manual telegraphy is exclusively recreational in nature and, except for the international Radio Regulation requirement (Article S25.5), there is no longer any public interest served by requiring code testing.

A single five words-per-minute (WPM) telegraphy examination meets the international treaty requirement and would eliminate the need to grant medical credit to disabled amateurs for the higher code speed examinations. We see no justification for 13 and 20 words-per-minute code testing ...or 12 WPM as suggested by the American Radio Relay League.

The current system of six Amateur Service license classes and eight different examinations is excessively complex. We agree with the Commission's proposal to abolish the Novice and Technician Plus operator licenses. But considering the primary difference between the current Advanced and Amateur Extra Class operator licenses is the 20 words-per-minute code examination which yields very limited additional privileges, we feel a further streamlining of the number of license classes can be realized.

We believe only three license classes conferred by four examinations are really needed which would correspond to the current Technician, General and Amateur Extra Class. The written examination for these license classes would have 50 multiple choice questions each in the Technician and General Class and 100 questions in the Extra Class. These classes make use of the existing question pools and training material so as to reduce the burden on the publishers and distributors who already have this material available in the marketplace.

I. INTRODUCTION:

These comments are filed on behalf of the National Conference of Volunteer Examiner Coordinators (NCVEC). Volunteer Examiner Coordinators (VECs) act as the administrative liaison (or coordinator) between the Federal Communications Commission who issue Amateur Service licenses and the volunteer examiners (VEs) who prepare and administer the required license examinations in the Amateur Service.

In the interest of efficiency, the FCC directs the Amateur Service license examination program through fourteen VEC organizations. Only VEC-accredited amateurs having a higher class license than an examinee may serve as volunteer examiners. There are approximately 35,000 accredited volunteer examiners in the VEC System. VEs form into examining teams and are usually managed by a session manager who acts as their team's contact to the VEC.

After the examination session is over, each VE team forwards the examination results to their VEC. After review, the VEC electronically submits the application data to the Commission. The FCC then grants the license, posts the information to their online database and mails the appropriate license to the applicant. VEs currently administer eight different Amateur Service license examinations; five written and three telegraphy examinations. The VEC System administers more than 100,000 examination elements annually.

The duties of a VEC consists of recruiting and accrediting volunteer examiners, issuing accreditation documents, coordinating examination sessions with VEs, informing VEs of changes to the examination process, providing examination materials and necessary forms, collecting and archiving examination paperwork, preparing and maintaining records of all test sessions and screening, approving and electronically forwarding the successful applications for amateur station/operator licenses to the Commission. Through its Question Pool Committee (QPC) the VECs evaluate, develop, maintain and revise the pools of examination questions.

The VEC System was formed in the early 1980's after Congress enacted legislation which allowed the Federal Communications Commission to

accept the volunteer services of amateur radio operators to prepare and administer Amateur Service license examinations.

Over the past fifteen years, more than one million applicants for Amateur Service licenses have been examined by the VEC System at essentially no cost to the government or the taxpayer. The work of the VEs and VECs is financed through relatively small fees paid by the examinees. The Volunteer Examiner Coordinators meet with FCC officials each summer at their annual conference during which topics of common interest to the examining community are discussed.

II. BACKGROUND:

The FCC's intention to restructure the Amateur Service has its roots in three *Petitions for Rulemaking* filed by the American Radio Relay League (ARRL or League).

In RM-9148, ARRL requests additional opportunities for VEs to prepare and administer examinations. In RM-9150, the League proposes to create a private sector complaint procedure for resolving cases of malicious interference in the Amateur Service. In RM-9196, ARRL wants the Morse code waiver procedures changed that lead to telegraphy examination credit for the handicapped.

The Commission elected to address these petitions as part of their *1998 Biennial Review* of regulations which no longer serve the public interest. The Commission made specific proposals and requested information on certain other topics in the *Notice of Proposed Rulemaking.* The NCVEC will limit its comments to issues concerning Amateur Service examinations and licensing.

The American Radio Relay League also is a VEC and since the *Notice* is based on three petitions filed by the League and their Board of Directors has written the Commissioners with their own proposal for Amateur Service restructuring, we anticipate the ARRL-VEC's comments will be embodied in those submitted by the American Radio Relay League. Therefore this document does not represent the views of the ARRL or the

III. History of License Classes and Examinations:

There are currently six classes of amateur operator licenses which are obtained by passing five written and three Morse code examinations at five, thirteen and twenty words per minute.[1] Amateur radio is an international pursuit and no other country in the world has as many Amateur Service qualifying examinations and license classes as the United States. Most countries have only two or three license classes and three or four examinations.

The current Amateur Service licensing process had its origin in what came to be known as the Incentive Licensing Program adopted on August 24, 1967[2]. Prior to 1967, there were four license classes: Novice[3], Technician, General and Extra Class which were obtained by passing combinations of three written examinations[4] and three Morse code examinations[5] The objective of Incentive licensing was to award

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[1] These are Novice, Technician, Technician Plus, General, Advanced and Amateur Extra Class. (See Section 97.501 and 97.503)

[2] Docket No. 15928 (FCC 67-978)

[3] The Novice license was created in 1951 with a code speed requirement of 5 words-per-minute.

[4] **Element 2/Basic theory and regulations, 3/General theory and regulations and 4/Advanced techniques**

[5] **Element 1(A) Beginner code test at 5 WPM, 1(B) General code test**

additional frequency privileges in exchange for increased telegraphy skill and electronics knowledge.

The Incentive Licensing Program re-established the Advanced Class license which had not been available for the previous 15 years. As a result, Element 4 was subdivided into Element 4(A) - the intermediate written examination for the Advanced Class and 4(B) - the advanced written examination for the Amateur Extra Class. The Amateur Service now had five license classes, 4 written examinations and 3 code examinations.

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at 13 WPM and 1(C) Expert's code test at 20 WPM.)

In 1979, the international Amateur Service regulations[6] were amended to permit administrations to waive the manual Morse proficiency requirement for "...stations making use exclusively of frequencies above 30 MHz."

In 1987, the concept of Novice Enhancement[7] came into being. Novices would now be permitted to operate on the 220-MHz and 1270 MHz bands at reduced power and the subband on 10 meters for Novices and Technicians was enlarged to 28.1-28.5 MHz (CW) and 28.3 to 28.5 MHz (CW and SSB.) Written Element 2 was increased from 20 to 30 questions and written Element 3 was split into two parts with the Technician (VHF oriented) questions being placed into an Element 3(A) pool and the General (HF oriented) questions into an Element 3(B) pool. The number of Amateur Service examinations were now increased to eight. Five different license classes could now be obtained by passing combinations of five written and three telegraphy examinations.

In 1990, the telegraphy requirement was eliminated from the Technician Class and new holders were permitted to operate on all Amateur spectrum above 30 MHz effective February 14, 1991. Technician Class amateurs who had demonstrated telegraphy proficiency at five words-per-minute were awarded a Technician Plus (5 WPM code) license now making a total of six Amateur Service license classes.

Due to changes over the past decade in the Amateur Service examination and licensing structure, it has become exceedingly difficult for volunteer examiners to determine which examinations an applicant has passed and therefore receives examination credit.

For example: an applicant who held a Technician license on or before March 21, 1987, receives credit for Element 1(A), 2, 3(A) and 3(B). Technicians who passed their examinations between March 22, 1987 and

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[6] World Administrative Radio Conference, Geneva, 1979.

[7] PR Docket 86-161, Novice Enhancement, released February 10, 1987. New rules effective March 21, 1987.

February 13, 1991 do not receive credit for Element 3(B.) A Technician license obtained on or after February 14, 1991 receives only credit for Element 2 and 3(A). A Technician Plus licensee is a Technician who has passed Element 1(A), the 5 WPM code examination.

Since 1987, we have had four different versions of the Technician license and each is accorded different examination credit. There can be no doubt that the U.S. Amateur licensing system with its excessive license classes, written and telegraphy examinations and various versions of the same license is the most complicated of any Amateur Service in the world.

IV. FCC and ARRL Restructuring Proposal:

It is apparent that the American Radio Relay League also agrees that the current Amateur Service license structure is overly complex. As a result of a vote at their July 1998 Board meeting, and prior to the release of the *Notice,* the American Radio Relay League proposed in a letter delivered to the Commission on July 22, 1998 to reduce the number of Amateur Service license classes from six to four.

The ARRL proposed structure would consist of four classes which they call A, B, C and D. Privileges would correspond to the present Amateur Extra, Advanced, General and Technician Class licenses but with expanded 80, 40 and 15 meter telephony segments for the General, Advanced and Extra Class and reduced telegraphy examination requirements.

AMERICAN RADIO RELAY LEAGUE AMATEUR SERVICE RESTRUCTURING PROPOSAL

New Class	Corresponding Class	Telegraphy and Written Examination Requirements
Class D	Technician Class	Same as for the current Technician.
Class C	General Class	5 WPM telegraphy examination and written examination similar to Element 3(B).
Class B	Advanced Class	12 WPM telegraphy examination and written examination similar to Element 4(A).

Class A	**Extra Class**	**12 WPM telegraphy examination and written examination similar to Element 4(B).**

There is reason to believe that the ARRL's proposal was prompted by advance information from the Commission that, as part of the 1998 biennial regulatory review, consideration was being given to simplifying the Amateur Service licensing process which could include a possible reduction in the code requirement to 5 WPM.

The FCC's proposal in the *Notice* is somewhat similar to the ARRL request. The Commission also proposed four license classes but continued their current names: Technician, General, Advanced and Extra without increased telephony frequency privileges.

We agree with the Commission's proposal to retain the current license class names[8]. First, the study material in the publishing marketplace identifies the training aids by these names and any change would confuse examinees. Secondly, most amateurs seem to prefer the current names rather than Class A, B and C ...or 1, 2 and 3. Third, the Commission has proposed to permit Novice Class operators to renew their license indefinitely and it would be awkward to mix both old and new license class names.

Finally, and most important, the Commission does not have the financial resources needed to reissue all current licenses bearing new names. Even if the Commission just changed the license class name upon renewal or modification, it would take twelve years (10 year license term plus the two year grace period) to phase out the old name which would be confusing and excessive.

V. Number of Amateur Service License Classes:

We agree with the FCC's belief that the number of Amateur Service operator license classes is excessive. The Commission is correct in its conclusion that the Technician Class license has replaced the Novice Class operator license as the entry level of choice. Very few people

[8] See *Notice, WT 98-143,* Number of License Classes, paragraph 12

now take the examinations for the Novice class license. Over the past ten years, the number of Novice operators has steadily declined. By sharp contrast the number of codeless Technicians has increased from zero to more than 185,000 during the last seven years.

The FCC proposed in the *Notice* to phase out the Novice Class with current holders being grandfathered. No new Novice Class operator licenses would be granted, but current holders would be permitted to modify or renew their licenses indefinitely. To upgrade to the Technician Class operator license, Novice Class operators would need to pass a new 65 question Element 3(A.) This new examination element would replace the current 35 question Element 2 and 30 question Element 3(A.)

We also concur with the Commission's belief that the Technician Plus operator class is unnecessary. The same result can be obtained by awarding credit for the five WPM telegraphy examination (Element 1(A)) to Technician Class operators as the FCC has proposed. Technician Plus operators without credit for Element 3(B) could upgrade to the General class by passing this written element.

We applaud the decision by the ARRL's Board to support a minimum telegraphy speed qualifying level (Element 1(A) at 5 WPM) as a prerequisite for the General Class operator license. We also believe 5 WPM should be the requirement for all license classes since it meets the international requirement for operation below 30 MHz. We will discuss telegraphy examinations later in these comments.

Currently, other licensed classes can operate within the Novice bands, but only at a 200 watt reduced power level. In view of the small number of new Novice licenses now being issued, if the FCC were to discontinue licensing new Novices, it would be appropriate to delete the frequency limitations on Novices and the power limitations on other classes of operators using what were the Novice frequencies.

The FCC's suggestion that "...Novices would continue to be limited to 200 watts output power but could operate using the Morse code anywhere within the 80, 40, 15 and 10 meter bands" is a good way to deal with the elimination of the Novice (and Technician Plus) Class licenses. The Commission should also allow these operators to use telephony in the ten

meter band between 28.3 and 29.7 MHz.

It would give these operators and future Technician Class operators with CSCE credit for Element 1(A) additional frequency privileges which is desirable. It is suggested that these new “Novice” bands conform with the frequencies available to the General Class so that Novice and Technician Class operators with Element 1(A) credit do not have privileges not available to the General Class.

VI. Combining the Advanced and Amateur Extra Class licenses:

Four license classes still appear to be excessive. There is very little difference in the frequency privileges accorded to the Advanced and Amateur Extra Class. Both classes can operate on every Amateur Service band, at the same power levels using the same emission types. Except for present code requirements, knowledge and skill level for these classes are the same.

ADDITIONAL FREQUENCY PRIVILEGES ACCORDED TO THE AMATEUR EXTRA CLASS OPERATOR OVER THE ADVANCED CLASS OPERATOR

Amateur band	Telephony spectrum	Telegraphy spectrum
160 meters:	None	None
80 meters:	25 kHz	25 kHz
40 meters:	None	25 kHz
30 meters:	None	None
20 meters:	25 kHz	25 kHz
17 meters:	None	None
15 meters:	25 kHz	25 kHz
12 meters:	None	None
10 meters:	None	None
VHF/UHF	None	None

In the interest of further simplification and streamlining the licensing process, we believe that the Advanced and Amateur Extra Class should also be combined using the same methodology as proposed by the Commission for the Novice Class. (i.e.: No new Advanced class operator licenses would be granted and current holders would be permitted to modify or renew their licenses indefinitely.) The current 50 question Element 4(A) and 40 question Element 4(B) would be combined into a single 100 question examination (called Element 4) using questions from these existing pools.

By creating the Technician and Extra Class written examinations from

existing question pools, current license preparation material in the publishing marketplace would not become instantly obsolete. This is especially important to examinees who would find the needed Element 2 and 3(A) (required for the new Element 3(A)) and Element 4(A) and 4(B) (required for the new Element 4) readily available to them.

All Amateur Service license examination questions, their multiple choices and answers are developed by the VECs internal Question Pool Committee (QPC) on a four year cycle. Element 2 and 3(A) are revised together since they are the requirement for the most popular Technician Class operator license. In each of the following years, Element 3(B), 4(A) and 4(B) are revised. Since the existing Element 4(A) and 4(B) question pools would form the basis of the new Element 4, revision of these Elements would necessarily be completed together.

It should be pointed out that training materials are produced in quantities based on the QPC's published premise that the question pools would remain current for a four year period. By utilizing existing study material in the publishing marketplace, the financial burden on study material distributors and publishers would be greatly reduced.

VII. Amateur Service with three license classes:

We do not agree with the ARRL's proposal to grandfather all amateurs now licensed as Novice or Technician Plus to the General Class level without further examination. The purpose of the various syllabuses and examinations is to provide a training outline and for subsequent testing on the rules, operating procedures and electronics needed to properly operate at a specific license class level.

It is not in the public interest to arbitrarily grant Novices Class operators credit for Element 3(A) and 3(B) and Technician Plus operators credit for Element 3(B) without examination. We therefore agree with the FCC's proposed rules that require these written examinations be

passed by the applicant before upgrade[9].

We propose that the Amateur Service qualifications for the various license classes be as follows:

EXTRA CLASS	Requires passing or credit for: Elements 1(A), 3(A), 3(B) and 4.
Examination:	Element content
Written	Element 4 consists of 100 primarily technical multiple choice questions taken from the existing but combined Element 4(A) and 4(B) question pools.
Telegraphy	Element 1(A), 5 WPM
Privileges:	Current Extra Class frequency privileges (No change over existing privileges.)
Upgrade path:	Current Advanced Class amateurs need pass new Element 4 to upgrade to the Amateur Extra Class. Current Advanced Class amateurs could modify and renew their licenses indefinitely, but no new Advanced Class licenses would be issued.
Call Signs:	Sequential - Group A, then Group B
	Vanity: - Group A, B, C or D.

GENERAL CLASS	Requires passing or credit for: Element 1(A), 3(A) and 3(B).
Examination:	Element content
Written	Element 3(B) consists of 50 primarily HF-oriented multi-ple-choice questions taken from the existing Element 3(B) question pool. (No change except for 50 questions instead of 30.)
Telegraphy	Element 1(A), 5 WPM
Privileges:	Current General Class frequency privileges (No change over existing privileges although FCC may wish to consider giving Advanced phone spectrum to the General Class.)
Upgrade path:	Current Novice operators would have to pass written Elements 3(A) and 3(B) to upgrade to the General Class. Technician (without Element 3(B) credit) would need to pass Element 1(A) and 3(B). Tech Plus Class amateurs need pass only Element 3(B) to upgrade to the General Class. Current Novice Class amateurs could modify and renew their licenses indefinitely, but no new Novice Class licenses would be issued. Technician Plus licenses would be renewed as Technician Class but would retain 5 WPM telegraphy examination credit indefinitely.
Call Signs:	Sequential - Group C, then Group D.
	Vanity - Group C or D

[9] See 47 C.F.R. §97.501(b)

TECHNICIAN CLASS	Requires passing: Element 3(A)
Examination:	Element content
Written	New Element 3(A) consists of 50 primarily VHF/UHF-oriented multiple-choice questions taken from the existing combined Element 2 and 3(A) question pools.
Telegraphy	None
Upgrade path:	Current Novice operators would have to pass written Elements 3(A) to upgrade to the Technician Class.
Privileges:	All amateur bands above 30 MHz (i.e. 6 meters and higher) (No change over existing privileges.)
Call Signs:	Sequential - Group C, then Group D Vanity - Group C or D

VIII. History of Telegraphy Examination:

At their Washington, DC conference in 1927, the ITU (then called the International Telegraph Union) allocated frequency bands to the various radio services and established operating guidelines and operator qualifications. It was deemed important that Amateurs prove an ability to transmit and receive communications in Morse signals.

Over the last fifty years, however, the administrations comprising International Telecommunication Union have reviewed and voted to relax the Amateur Service's mandatory Morse proficiency requirement at every international conference capable of do so.

In 1947 (Atlantic City), the ITU agreed that Morse proficiency should only be required when the operation took place on frequencies below 1000 MHz (1 GHz.) At WARC-59, the 1959 World Administrative Radio Conference, dropped this level to 144 MHz. A further reduction was made at WARC-79 to its present 30 MHz.

A review of the Amateur Service qualifications is on the agenda for the World Radio Conference scheduled for 2001 and it is anticipated that the ITU will totally abolish the manual telegraphy requirement at that time.

The current FCC rules provide for three levels of telegraphy skill, five, thirteen and twenty words-per-minute. We do not believe that these three speeds remain relevant today and that a single, minimum skill level necessary to meet our international responsibilities (i.e. 5

WPM) is all that is needed and should be adopted.

IX. Telegraphy requirements in the Amateur Service:

There are many communications modes and emissions available to the radio amateur and manual CW is just another one which certainly deserves no special priority. The amateur radio operator examination process does not require a practical demonstration of the ability to use any other mode - even though more than a thousand modes and emissions are available to the Amateur Service.

The international law[10] requires unspecified proficiency in the International Morse code when the operation takes place in the medium or high frequency bands. Because of technological advances, this regulation is now inconsistent with the purpose of the Amateur Service[11] since it provides a barrier to otherwise qualified individuals who wish to experiment and communicate below 30 MHz. There can be no doubt that the Morse code proficiency requirements have constituted an unnecessary and artificial impediment to fuller use of the Amateur Radio Service for many potential and existing amateurs.

The fact that the overwhelming majority of (no-code) Technician amateurs are not upgrading to license classes that require telegraphy suggests that the Morse code requirement is a significant barrier. The number of Amateurs holding license classes which require manual telegraphy skills is declining while the number of participants holding the codeless class has been increasing.

X. Morse code is used to limit access:

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[10] International Radio Regulations, Article 32, Section I, paragraph 3(1) - renumbered to S25.5 at WARC-95.

[11] 47 C.F.R. §97.1(b) Amateur Service purpose: "Continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art.

Over the years, telegraphy license examinations have been used to control the number of Amateur Service participants operating at the HF level in order to inhibit frequency congestion. An early example appears in Clinton B. DeSoto's classic book about Amateur Radio, *Two Hundred Meters and Down.*[12] DeSoto was a highly placed ARRL official at the time his book was written and published. We quote:

> **"The growth of amateur radio and the total number of amateurs will doubtless be controlled in the future. The present condition of the amateur bands, while not intolerable, approaches saturation. ...The only justifiable restrictive procedure is to raise the standards of competency. ...A slight stiffening of the basic examination, together with the increased code-speed requirement, would accomplish the desired result."**

At their 1936 annual meeting, the ARRL Board voted to ask the FCC to raise the code speed requirement on license exams to 12.5 WPM."[13] A letter was then sent by Kenneth B. Warner W1EH, ARRL General Manager, to the FCC requesting the increase. He wrote:

> **"A general raising of the standards could help to confine the obviously limited facilities of amateur radio to those who have at least nominal aptitude for the same. It seems indicated that this situation could best be treated by an increase in the code speed. Consequently, the League now requests the Commission to increase the code speed required in the amateur examination from ten words per minute to twelve-and-one-half words per minute."**

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[12] Page 179, *"Two Hundred Meters and Down, The Story of Amateur Radio,"* Clinton B. DeSoto, published 1936 by the American Radio Relay League.

[13] From ARRL Official Broadcast 671, May 10, 1936.

On June 3, 1936, the Commission approved an increase in the 10 WPM code speed to 13 since they believed twelve-and-one-half words per minute was an awkward examination speed.[14]

Some amateurs believe that the effort and sacrifice needed to learn Morse code indicates a more dedicated and, therefore, a better candidate for Amateur Radio. No evidence exists, however, that supports a relationship between manual telegraphy proficiency and the quality, desirability or motivation of the operator. There does not seem to be any difference in the proportion of abusive and non-compliant telegraphy proficient operators as compared to those who are not so skilled

What the Morse code licensing requirement does do, however, is to greatly reduce the number of applicants operating on the medium and high frequencies. Many people question why an individual with vast knowledge in the electronics field should be excluded from operating on HF spectrum due to a personal disinterest in the Morse code.

Continuing the use of Morse code proficiency as a means with which to gauge "quality" or to limit the number of amateur radio operators accessing public spectrum is certainly at odds with the FCC's mandate to promote the wider use of radio and its commitment to the use of emerging technologies.

Some amateurs view the diminishing growth rate at the license class levels which require telegraphy knowledge with satisfaction since it tends to reduce the amount of congestion to their HF signals. This is very short-sighted, since the effect of this decline is more pressure from other radio services (such as short wave broadcasting) to reallocate Amateur Service spectrum to their expanding needs.

The international requirement that amateur radio operators be qualified in Morse code signals has its roots in maritime radio communications. Today, ocean-going vessels throughout the world have,

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[14]. The letters that we mention were researched by (and obtained from) a Civilian Records Archivist at the National Archives, Washington, DC

for all practical purposes, discontinued manual telegraphy as the primary means of safety and distress communications. Even the U.S. Coast Guard no longer monitors the 500 kHz telegraphy distress channel and has turned to more efficient and reliable communications such as the satellite-based Global Maritime Distress and Safety System (GMDSS) and digital selective calling (DSC.)

It is not necessary for a radio amateur to be Morse proficient who wishes to communicate using other modes and emissions on the high frequency amateur bands. From a regulatory perspective, it is ludicrous to require high speed telegraphy proficiency on the HF amateur bands for everyone when the greater majority of radio amateurs do not desire to use that mode and there is no regulatory reason for them to do so. The future of Amateur Radio lies with trunking, computers, satellites, automatic error-correcting digital communications and with emerging communications systems -- not with slow and unpredictable manual telegraphy.

There is a vast number of Technician Class licensees who would like to operate on HF but who are precluded from doing so because of the international and FCC Morse code proficiency requirements. While we recognize that the Commission has an obligation to meet U.S. treaty conditions, there is no need to mandate code speeds in excess of the minimum needed to meet this requirement.[15] In short, the Commission should insure that the amateur examination elements are appropriate for the types of operation that will be performed by the licensee.

XI. <u>Telegraphy Waivers in the Amateur Service</u>:

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[15] Seemingly in violation of the international Radio Regulations, Japan allows its radio amateurs to operate with transmitter power not exceeding 10 watts on the medium and high frequency amateur bands between 21 MHz and 30 MHz or below 8 MHz without Morse code knowledge. Their rationale is that the low power signals are domestic in scope and cause no interference to other radio services.

The ARRL has petitioned the Commission asking that the procedural requirements in Part 97 be changed that grant examination credit for the higher telegraphy speeds to examinees with doctor-certified disabilities.[16]

Specifically, the League wants the disabled candidate to attempt the CW test -- with any and all necessary accommodations -- before being granted an exam waiver based on a physician's certification. Also, Volunteer Examiner Coordinators (VECs) would be required to request and review medical information pertinent to an applicant's handicap from the certifying physician and would be required to have this information on file before the application is forwarded to the FCC for processing.

The Commission asked in the *Notice*[17] if the code speed should be reduced to 5 WPM for everyone as a way to eliminate the need to grant waivers of the higher code speed requirements for the handicapped. We believe the Commission's suggestion has merit.

Up until 1990, waivers of the 13 and 20 WPM Morse code speed requirement were not possible. But with the help of King Hussein/JY1 of Jordan and President George Bush, a Johnstown, Pennsylvania amateur (Tom McMillen, WB3HGW) obtained a reversal of the FCC policy towards telegraphy examination exemptions for the handicapped. Effective July 1, 1990, amateurs with learning, mental or physical handicaps would now qualify for a complete waiver of the 13 and 20 WPM Morse examination.

On June 15, 1990, the Volunteer Examiner Coordinators met with the FCC in Gettysburg, Pennsylvania at their annual conference. The VEC's were instructed in the future to "make additional accommodations for handicapped examinees who have a special problem in proving that

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[16] See RM-9196 filed by the American Radio Relay League on September 23, 1997.

[17] See paragraph 25, NPRM, WT Docket No. 98-143.

they have mastered the required code speed and where it is warranted, handicapped examinees should be able to take the 5 WPM telegraphy examination one sentence, or one phrase, or one word, or even one character at a time. Where it is warranted, a sending test should be substituted for the receiving test." The one-character-at-a-time meant that no particular speed would be required which is legal under the law.

The VECs were also told that the Commission would grant a requested waiver of the higher speed (13 and 20 WPM) code exam if the examinee had passed the 5 WPM code examination in some way and obtained a physician's certification stating that, due to a severe handicap the examinee is unable to meet the 13 or 20 WPM requirement.

A new rule[18] was later added to Part 97 providing examination credit for the 20 WPM telegraphy element credit when an applicant presented a doctor-certified FCC Form 610 to the VE team. A medical records release signed by the applicant permitted the disclosure to the FCC of medical information pertaining to the person's handicap.[19]

While the number of requests for telegraphy waivers has been increasing in recent years, we believe that the greater majority of Morse code waivers are legitimate. Some of our VE teams believe, however, that several may be fraudulent.

There is also a controversy as to exactly what constitutes a severe handicap preventing a person from passing a code test. Both the medical profession and the amateur community seem to have their own definition

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[18] See 47 C.F.R. §97.505(a)(10), Element credit)

[19] The rule (47 C.F.R. §97.509(k)) which permits administering VE teams (not the VEC) to require a "certification indicating the nature of the disability" for determining how the examinee may be accommodated. Only the FCC may request medical records under the "patient's release" section of the Form 610. We are not aware that this option has ever been exercised by the Commission.

of a disabling handicap.

It has been our experience that many individuals with major disabilities are indeed able to pass the examination - and many with what appears to be extremely minor impairments cannot. The simple fact is that any medical, mental, learning or psychological disorder which deviates from the norm can have an adverse impact on a telegraphy examination.

Many amateur radio operators - some of whom are also VEs - do not like the telegraphy waiver procedure since they believe it is unfair to those who had to pass the Morse code exam in a normal way.

The telegraphy waiver situation was discussed at our *National VEC Conference* in July 1997. The topic was brought up since the *ARRL Executive Committee* had adopted a position earlier in the year (later confirmed by its Board) precluding VEs who had not passed a regular code exam from administering code examinations to others.

The consensus we ascertained was that the examining community does not want to sit in judgement of a doctor's decision as to the extent or degree of a person's handicap and that the VE/VEC community is uncomfortable in getting further involved with an applicant's medical history.

There was also discussion among the VECs that contacting a busy doctor and getting them to respond was a very time consuming situation which would greatly slow down our work. Doctors (if you are able to reach them - nearly impossible during business staff hours since they are seeing patients) really do not approve of non-medical "outsiders" questioning their judgment. One question was, what were the VECs going to do with the medical records once - and if - we got the information. The VECs decided not to take a position on the ARRL proposal and the matter was "tabled" without action.

While the procedures suggested by ARRL would lead to fewer waivers ...we believe it would also lead to more legal problems involving the disabled since the new procedure would single out handicapped applicants. The *Americans with Disabilities Act* prohibits discrimination to

the disabled in the administration of examinations which lead to licensing provided by private entities.[20]

We question the advisability of VECs requiring the submission of additional medical history from an examinee's doctor who has already certified that the applicant has a handicap which precludes him/her from passing a telegraphy examination. The ARRL petition further requires the VEC to "review" the medical information before processing the application for an amateur license. Once the VECs obtain the additional supporting medical information, then the license application can be processed. Coordinators in the *VEC System* are not qualified to interpret this information once received.

Since so many impairments can legitimately qualify as a handicap, the ultimate result will be that persistent amateurs and cooperating doctors will be able to comply with the ARRL's requested handling and obtain a waiver. The procedure would not limit waivers only to severely handicapped.

It appears that the primary purpose of the ARRL proposal is to greatly reduce or eliminate the number of examinees obtaining a telegraphy waiver. While this procedure may be appropriate for those who would abuse the system[21], it discriminates against the overwhelming majority of applicants seeking telegraphy exemptions who are legitimately handicapped in some way and invades their right to privacy. A patient has a right to keep personal medical information confidential.

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[20] Public Law 101-336, (also referred to as the "ADA") was signed into law on July 26, 1990 by President George Bush. See Section 36-309.

[21] It is nearly an impossibility for anyone to determine if a disorder negatively impacts a telegraphy examination. Furthermore, our experience has been that the greater majority of the public do indeed have permanent ailments which could qualify them for a telegraphy waiver.

But there can be no doubt that an unfair, inequitable situation exists where an applicant makes the sacrifice to learn the code while many others go the "easy exemption route." The real problem is differentiating between the two.

Rather than have the controversy caused by awarding waivers of the high speed telegraphy requirement to handicapped amateurs - a few of which may be undeserved - we believe a better approach would be to reduce the telegraphy speed for everyone to 5 WPM and eliminate it entirely when international law permits. If the higher telegraphy examination speeds are eliminated, a person with a disability would not have to apply for examination credit.

XII. Telegraphy examination administration:

The current arrangement for the preparation and administration of Morse code examinations as spelled out in the rules[22] is adequate and there is no need to change or add to them. We believe that the highest telegraphy speed needed is the minimum necessary to conform to the international Radio Regulations. The slow speed requirement (Element 1(A) at 5 WPM) more than meets the international treaty requirement that "Any person seeking a license to operate the apparatus of an amateur station shall prove that he is able to send correctly by hand and to receive correctly by ear, texts in Morse code signals."[23]

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[22] See 47 C.F.R. §97.503(a)(1), §97.507(a)(c)(d) and §97.509 (g)(h).

[23] A sending examination is generally not administered since passing a telegraphy receiving examination is adequate proof of an examinee's ability to both send and receive telegraphy. See 47 C.F.R. §97.509(g).

We do not believe it is necessary to add topics to the written examination to ensure a working knowledge of the newer digital technologies, which, in part, are replacing the Morse code. Examination questions covering new technology are automatically added to the question pools when they are routinely reviewed by the VECs Question Pool Committee.

If any increased difficulty in the written examinations is deemed appropriate, then it should be achieved by increasing the number of questions contained in the General and Extra Class written examination elements.

XIII. CEPT Telegraphy Requirements:

A common argument for two different Amateur Service telegraphy speeds is that they are needed for Amateur Service operation under CEPT guidelines. CEPT is the *European Conference of Postal and Telecommunications Administrations,* an organization of 43 different European administrations.[24] There are two CEPT recognized amateur radio operator licensing systems. One is for temporary (visiting guest) operation[25] and the other facilitates a permanently issued operator license in another CEPT or CEPT-recognized country.[26]

In September 1997, the U.S. State Department applied for U.S. participation in CEPT's temporary (visiting guest) licensing system

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[24] The 43 CEPT Administrations are: Albania, Andorra, Austria, Belgium, Bulgaria, Bosnia and Herzegovina, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Former Yugoslav Republic of Macedonia, Moldova, Monaco, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, San Marino, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom and Vatican City.

[25] Recommendation T/R 61-01 (Nice 1985, revised in Paris 1992 and by correspondence August 1992)

[26] Recommendation T/R 61-02 (Chester 1990, revised in Nicosia 1994), *Harmonized Amateur Radio Examination Certificate (HAREC).*

under Recommendation T/R 61-01. This was approved at a CEPT meeting[27] this past January. The CEPT arrangement permits reciprocal amateur radio operator licensing by visiting amateurs without the need to apply for a reciprocal permit. The FCC is currently in the process of implementing this arrangement.

CEPT recognizes only two license classes. The CEPT Class 2 license (which is similar to our Technician Class) yields full privileges above 30 MHz. The CEPT Class 1 license allows full privileges on all Amateur Service bands including the medium and high frequencies.

[27] CEPT Radio Regulatory working Group, (WGRR), Groningen, the Netherlands

It has been decided (with strong concurrence from the American Radio Relay League)[28] that the FCC-granted Technician Plus (which requires 5 WPM code proficiency) and higher class licenses would qualify for the CEPT Class 1 full privilege license. This is in accordance with CEPT Recommendation T/R 61-01 which uses the same wording concerning Morse code proficiency as appears in the international Radio Regulations.[29] That is, no specific code speed is required.

We therefore question the logic of the ARRL endorsement of reciprocal all band full privilege operation with only minimum (5 WPM) telegraphy proficiency, yet concluding that 12 WPM code speed is required by FCC-licensed amateurs to attain the same privileges operating in our own country. Furthermore, since the CEPT nations recognize only two amateur radio operator license classes, one wonders why it is necessary to have four, five or even six license classes here in the United States. When the manual telegraphy requirement is removed from Article 32, CEPT will have only one license class.

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[28] **See ARRL Bulletin 13, February 12, 1998, *"U.S. to participate in CEPT guest license arrangement"***

[29] **Exact quote from Recommendation T/R 61-01: "...Administrations are responsible, in accordance with article 32 of the ITU Radio Regulations, for taking such measures as they judge necessary to verify the operational and technical qualifications of radio amateurs. Additionally radio amateurs shall not operate on frequencies below 30 MHz, unless they have proved their ability to send correctly by hand and to receive correctly by ear texts in Morse code signals..."**

CEPT Recommendation T/R 61-02 makes it possible for CEPT and non-CEPT administrations to issue a *Harmonized Amateur Radio Examination Certificate (HAREC)*. The HAREC document shows proof of successfully passing an amateur radio examination which complies with the Examination Syllabus[30] for HAREC level A or B. The purpose of the HAREC is to facilitate the issuing of a permanent individual license to radio amateurs who stay in a CEPT or CEPT-recognized country for a longer term than that mentioned in CEPT Recommendation T/R 61-01. The HAREC syllabus specifies 12 WPM code proficiency which must be attained under certain examination conditions.[31]

Even if the United States did want to participate in the HAREC, an arrangement could be made for the needed examinations to be administered by a private entity (such as the ARRL or under the VEC System). Government regulations requiring 12 WPM code proficiency on all amateurs wishing to upgrade to the Extra Class are not needed. It is our belief that amateurs who wish to be certified at higher telegraphy speeds could — and should -- obtain these certifications from the private sector.

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[30] The U.S. amateur radio examination syllabuses do not conform to either the written or the telegraphy requirements specified in the HAREC Examination Syllabus and no consideration is being given by the United States to joining this recommendation.

[31] "Sending and receiving Morse code signals: The examinee is required to demonstrate his ability to send and transcribe in Morse code, plain texts, number groups, punctuation and other signs: at a speed not less than 12 WPM for a duration of at least 3 minutes with a maximum of 4 errors in reception [and] with a maximum of 1 uncorrected and 4 corrected errors in transmission using a non-automatic Morse key."

XIV. Advanced Class VEs for General Class:

The Commission asked in the Notice if Advanced Class operators should be permitted to be VEs for the General Class? Currently, an Advanced Class operator cannot prepare or administer a telegraphy examination for an examinee for a General Class license. Only an Amateur Extra Class licensee can administer that examination.

We agree with the ARRL that Advanced Class operators who are VEs should be permitted to prepare and administer examinations for a General Class operator license since it would increase the pool of volunteer examiners available for General Class examinations. There are indeed situations where additional VEs are needed and are in short supply — such as in a foreign country or rural area. Utilizing Advanced Class VEs to administer examinations for the General Class is legal under the law[32], non-controversial and will help fulfill the need for more volunteer examiners.

XV. Written Examination Requirements:

The Commission asked for comment in the *Notice* whether the ten general topics which must be asked in all written examinations should continue to be mandated by the Commission in the rules.[33] In short, the FCC wants to know whether the general topics set forth in Section §97.503(c) adequately covers the needed information categories relevant to determining whether an applicant has the qualifications necessary to

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[32] *Communications Act of 1934,* as amended, 47 U.S.C. 154, *Provisions relating to the Commission,* Section 4(A). VEs must hold a license class higher than the examinee (if one exists). Just having passed an examination does not in itself qualify a person to administer that examination to others.

[33] 47 C.F.R. §97.503(C) requires a specific number of examination questions be asked on ten topics in all written examinations. These topics are: FCC rules, station operating procedures, radio wave propagation, electrical principles, station equipment circuit components, practical circuits, signals and emissions, antennas and feed lines and RF safety.

become an amateur licensee.

Nine of the ten general topics have been in use for several decades. The tenth topic, “Radiofrequency environmental safety practices at an amateur station” was added in 1997 as a result of changes in the RF exposure standards.

As a general rule, these topics have served the amateur community very well over the years. They fail, however, to take changes in operating habits, technology and transmitting equipment into consideration. For example, volunteer examiners are required to administer examinations to the Technician Class examinee which contain questions on electronic circuits even though all of the VHF/UHF/microwave handheld, mobile and fixed station transceivers used by Technicians today are purchased in the commercial marketplace. Questions on electronic circuitry are more appropriate for the higher class operator who is more inclined to construct transmitting equipment. Extremely few - so few as to be non-existent — Technician Class amateurs build their own transmitting equipment today. That was not the case thirty years ago when FM VHF/UHF communications and repeaters were rare.

While a case could be made that even beginning amateurs should understand electronics the fact remains it is not necessary for them to do so in order to properly operate their commercially manufactured equipment. On the other hand, many amateurs believe that beginners should be more familiar with regulations, operating procedures/practices and electrical/RF safety.

The VECs Question Pool Committee is able to incorporate current and emerging technology and contemporary amateur operating practices into the existing topics, but it would be advantageous for the VEC's Question Pool Committee to be able to adjust the topics and questions as they believe appropriate. Any adjustments to the current topics and questions could — and should -- be made by the VECs when the various questions are routinely reviewed and revised.

Another point warranting consideration is that the current number of questions on the Technician, General and Advanced/Extra Class examinations is not the usual number of questions that one would

anticipate being on an examination. These odd numbers of questions appearing on an examination are caused by additional questions being added to cover new privileges (such as "Novice Enhancement"), topics (such as RF safety) or due to separations in existing examinations (such as the subdivision of Element 3 and Element 4 in 1987 and 1967.)

It would appear that the VECs should be working toward having 50 questions each on the Technician and General ...and 100 on the Amateur Extra Class. This would also slightly increase the difficulty of the General and Amateur Extra class examinations — the license classes where the Morse telegraphy examination requirements would be reduced. Many amateurs believe that these examinations should be made more difficult to compensate for the lower telegraphy speed.

NUMBER OF QUESTIONS IN AMATEUR EXAMINATIONS

License Class	Present Number	Proposed Number
Technician	65 questions	50 questions
General	30 questions	50 questions
Extra	90 questions	100 questions
TOTAL:	185 questions	200 questions

The above lineup of questions would appear to be more logical, are easy for VEs and VECs to implement and should better serve the amateur community.

The basic examination system would not be changed. That is, there would still be adequate questions in each of the pools and all questions would be multiple choice. Each written examination would be prepared from a pool of multiple-choice questions and answers that are approved by the National Conference of VECs. Each question pool would be updated on a specified cycle and all publishers and applicants would have access to current questions.

In short, we believe the written examination guidelines should be modified to provide VECs additional flexibility in determining the specific contents of the written examinations.

XVI. Conclusions:

Therefore, the foregoing considered, the National Conference of VECs requests that the Commission issue, at an early date, a Report and Order adopting a restructured Amateur Service with the following parameters:

1.) Number of Amateur Service License Classes is reduced from six to three by abolishing the Novice and Technician Plus Class operator licenses and combining the Advanced and Amateur Extra Class.

2.) Reduce the number of Amateur Service license examinations from eight to four. The remaining examinations will be:

Element 3(A) - 50 questions from Element 2 and 3(A) question pools.

Element 3(B) - 50 questions from the Element 3(B) question pool.

Element 4 - 100 questions from the combined Element 4(A) and 4(B) question pools.

Element 1(A) - Telegraphy examination at five words per minute.

Respectfully submitted:
National Conference of VECs

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Frederick O. Maia, W5YI
Chairman, NCVEC Rules Committee

October 1, 1998

CERTIFICATE OF SERVICE:

The American Radio Relay League submitted three Petitions which are being addressed in Docket No. WT 98-143. On October 1, 1998 , I mailed this document to ARRL General Counsel Christopher D. Imlay, of the Law Firm of BOOTH, FRERET, IMLAY & TEPPER, P.C., 5101 Wisconsin Avenue, N.W. Suite 307, Washington, DC 20016 as required by Section §1.47 and §1.405 of the Commission's Rules *(47 C.F.R.§1.47, 47 C.F.R. §1.405)*

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XVII. Appendix:

§ 97.9 Operator license.

(a) The classes of amateur operator licenses are: Novice, Technician, General, Advanced and Amateur Extra. A person who has been granted an operator license is authorized to be the control operator of an amateur station with the privileges of the operator class specified on the license.

(b) A person who has been granted an operator license of Novice, Technician, General or Advanced Class and who has properly submitted to the administering VEs an application document, FCC Form 610, for an operator license of a higher class, and who holds a CSCE indicating that the person has completed the necessary examinations within the previous 365 days, is authorized to exercise the rights and privileges of the higher operator class until final disposition of the application or until 365 days following the passing of the examination, whichever comes first.

§ 97.17 Application for new license or reciprocal permit for alien amateur licensee.

(b) Each application for a new amateur service license must be made on the proper document:

(1) FCC Form 610 for a new Technician, General or Amateur Extra Class operator/primary station:

(c) No application for a new Novice, Technician Plus or Advanced Class operator/primary station license will be accepted for filing.

§ 97.21 Application for a modified or renewed license.

(3) May apply for renewal of the license for another term. Application for renewal of a Technician Plus Class operator/primary station license will be processed as an application for renewal of a Technician Class operator/primary station license.

Subpart F - Qualifying Examination Systems

§ 97.501 Qualifying for an amateur operator license.

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

(a) Amateur Extra Class operator: Elements 1(A), 3(A), 3(B) and 4;

(b) General Class operator: Elements 1(A), 3(A) and 3(B);

(c) Technician Class operator: Element 3(A).

§ 97.503 Element standards.

(a) A telegraphy examination must be sufficient to prove that the examinee has the ability to send correctly by hand and to receive correctly by ear texts in the international Morse code at not less than the prescribed speed, using all the letters of the alphabet, numerals 0-9, period, comma, question mark, slant mark and prosigns AR, BT and SK.

(1) Element 1(A): 5 words per minute;

(b) A written examination must be such as to prove that the examinee possesses the operational and technical qualifications required to perform properly the duties of an amateur service licensee. Each written examination must be comprised of a question set as determined by the Volunteer Examiner Coordinators.

(1) Element 3(A): 50 questions concerning the privileges of a Technician Class operator license. The minimum passing score is 37 questions answered correctly.

(2) Element 3(B): 50 questions concerning the additional privileges of a General Class operator license. The minimum passing score is 37 questions answered correctly.

(3) Element 4: 100 questions concerning the additional privileges

of an Amateur Extra Class operator license. The minimum passing score is 75 questions answered correctly.

(c) The topics and number of questions required in each question set are determined by the VECs Question Pool Committee.

§ 97.505 Element credit.

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

(1) An unexpired (or expired but within the grace period for renewal) General or Advanced Class operator license: Elements 1(A), 3(A), and 3(B).

(2) An unexpired (or expired but within the grace period for renewal) Technician Plus Class operator license (including a Technician Class operator license granted before February 14, 1991): Elements 1(A), and 3(A).

(3) An unexpired (or expired but within the grace period for renewal) Technician Class operator license: Element 3(A).

(4) An unexpired (or expired but within the grace period for renewal) Novice Class operator license: Elements 1(A).

(5) A CSCE:

(i) Each element the CSCE indicates the examinee passed within the previous 365 days.

(ii) Element 1(A) if examinee previously held a Technician Plus license.

(6) An unexpired (or expired for less than 5 years) FCC-issued commercial radiotelegraph operator license document or permit: Element 1(A).

(7) An expired FCC-issued Technician Class operator license document (or proof of having hld the document) granted before March 21, 1987: Element 3(B).

(8) An expired, or unexpired, Technician Class license document (or proof of having held the document) granted before February 14, 1991: Element 1(A).

(b) No examination credit, except as herein provided, shall be

allowed on the basis of holding or having held any other license grant or document.

§ 97.507 Preparing an examination.

(a) Each telegraphy message and each written question set administered to an examinee must be prepared by a VE who has been granted an Amateur Extra Class operator license. A telegraphy message or written question set may also be prepared for the following elements by a VE who has been granted an FCC operator license of the class indicated:

(1) Element 3(B): Advanced Class operator.

(2) Element 1(A) and 3(A): Advanced or General Class operator.

(b) Each question set administered to an examinee must utilize questions taken from the applicable question pool.

(c) Each telegraphy message and 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.

(d) A telegraphy examination must consist of a message sent in the international Morse code at no less than the prescribed speed for a minimum of 5 minutes. The message must contain each required telegraphy character at least once. No message known to the examinee may be administered in a telegraphy examination. Each 5 letters of the alphabet must be counted as 1 word. Each numeral, punctuation mark and prosign must be counted as 2 letters of the alphabet.

§ 97.509 Administering VE requirements.

(a) Each examination for an amateur operator license must be administered by at least 3 administering VEs at an examination session coordinated by a VEC. Before the session, the administering VEs or the VE session manager must ensure that public announcement is made stating the location and time of the session. The number of examinees at the session may be limited.

(b) Each administering VE must:

(1) Be accredited by the coordinating VEC;

(2) Be at least 18 years of age;

(3) Be a person who has been granted an FCC amateur operator license of the class specified below:

(i) Amateur Extra, Advanced, or General Class in order to administer a Technician Class operator license examination;

(ii) Amateur Extra or Advanced Class in order to administer a General Class operator license examination.

(iii) Amateur Extra Class in order to administer a Amateur Extra Class operator license examination.

(4) Be a person whose grant of an amateur station license or amateur operator license has never been revoked or suspended.

(c) Each administering VE must be present and observing 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.

(d) No VE may administer an examination to his or her spouse, children, grandchildren, stepchildren, parents, grandparents, stepparents, brothers, sisters, stepbrothers, stepsisters, aunts, uncles, nieces, nephews, and in-laws.

(e) No VE may administer or certify any examination by fraudulent means or for monetary or other consideration including reimbursement in any amount in excess of that permitted. Violation of this provision may result in the revocation of the grant of the VE's amateur station license and the suspension of the grant of the VE's amateur operator license.

(f) No examination that has been compromised shall be administered to any examinee. Neither the same telegraphy message nor the same question set may be re-administered to the same examinee.

(g) Passing a telegraphy receiving examination is adequate proof of an examinee's ability to both send and receive telegraphy. The administering VEs, however, may also include a sending segment in a telegraphy examination.

(h) Upon completion of each examination element, the administering VEs must immediately grade the examinee's answers. The administering

VEs are responsible for determining the correctness of the examinee's answers.

(i) When the examinee is credited for all examination elements required for the operator license sought, 3 VEs must certify on the examinee's application document that the applicant is qualified for the license and that they have complied with these administering VE requirements. The certifying VEs are jointly and individually accountable for the proper administration of each examination element reported on the examinee's application FCC Form 610. The certifying VEs may delegate to other qualified VEs their authority, but not their accountability, to administer individual elements of an examination.

(j) When the examinee does not score a passing grade on an examination element, the administering VEs must return the application document to the examinee and inform the examinee of the grade.

(k) The administering VEs must accommodate an examinee whose physical disabilities require a special examination procedure. The administering VEs may require a physician's certification indicating the nature of the disability before determining which, if any, special procedures must be used.

(l) The administering VEs must issue a CSCE to an examinee who scores a passing grade on an examination element.

(m) Within 10 days of the administration of a successful examination for an amateur operator license, the administering VEs must submit the application document to the coordinating VEC.

§ 97.523 Question pools.

All VECs must cooperate in maintaining one question pool for each element and determining the topics and number of questions in each pool. Each question pool must be published and made public prior to its use in making a question set. Each question on each VEC question pool must be prepared by a VE holding the required FCC-granted operator license. See Section §97.507(a) of this part.