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FCC MAIL ROOM Before the Federal Communications Commission Washington, DC 20554

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

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

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

More than 2,000 comments have been filed with the Commission on their Notice of Proposed Rule Making (Notice) seeking to streamline and restructure the Amateur Service.

The National Conference of VECs (NCVEC) has read nearly all of the comments posted to the Commission's Electronic Comment Filing System (ECFS) located on the Internet.

The comments generally take two forms. Those that (1) support the positions of the FCC, American Radio Relay League or the NCVEC or (2) make new suggestions on how to improve these proposals. Some comments say the Amateur Service "is not broke" and therefore does not need to be "fixed."

The Commission proposed in WT 98-143 is to reduce the number of Amateur Service license classes from six to four, to permit Advanced Class volunteer examiners (VE's) to administer General Class examinations and to eliminate Radio Amateur Civil Emergency Service (RACES) licenses. The Notice also asked for suggestions on how to

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improve the Amateur Service enforcement process and on possible changes to the telegraphy requirements and the written examinations.

Comments primarily address Morse code issues

By far, the greater majority of comments, however, focused on the need for manual telegraphy testing at various speeds. Nearly half of the more than 1,300 comments that addressed the Morse code issue, believed that there is either no longer any purpose served in requiring manual telegraphy ...or for telegraphy examinations in excess of 5 words-per-minute (WPM) as suggested by the NCVEC. One third of all comments felt that there should be no change in the current three proficiency levels (5, 13 and 20 WPM) and the remainder supported two speeds (5 and 12 WPM) as proposed by the American Radio Relay League.

It is interesting to note that much of the support for the various Morse code test speed proposals coincided with whether the commenter had already passed a specific telegraphy examination speed. Much of the support for a maximum 5 WPM telegraphy examination speed came from the no-code Technician or slow-code Tech Plus Class licensees.

On the other hand, many Extra Class licensees who had already passed 20 WPM believed that there should be no change in the current 5, 13 and 20 WPM proficiency levels. General and Advanced Class licensees who had already passed 13 WPM generally supported the proposal of the American Radio Relay League which suggested a maximum 12 WPM CW testing level.

It thus appears that the majority of the amateur community is primarily concerned with how any change in the Morse code testing speed will impact them rather than what is best for the public and the future of the Amateur Service.

There was, however, widespread agreement and acknowledgment that

the Novice and Technician Plus Classes should be discontinued and a 5 WPM General Class HF entry level adopted. Three quarters of all comments accepted or conceded that premise. A great many commenters supported combining the Advanced and Extra Classes.

Just about all of the comments posted to the Commission's ECFS came from parties who were already amateur radio operators. The unlicensed public is essentially not represented in this proceeding. It is important that any Amateur Service restructuring, and especially the code exam question be decided in the public interest, not by popular vote, opinion polls or by consensus.

I. American Radio Relay League

(1.) The ARRL states in its comments that it "...is the national association of Amateur Radio operators in the United States." It infers that it represents a balanced cross section of all amateurs when in fact it represents only the interests of its members which statistically are long term, CW proficient amateurs with senior class licenses.

According to ARRL published membership data¹, more than two-thirds of its membership have passed high speed (13 and 20 words-per-minute) telegraphy examinations. The ARRL membership is therefore not indicative of the current composition of the U.S. Amateur Service where the greater majority of licensees hold no code or slow (5 WPM) code licenses.

Furthermore, nearly eighty percent of the U.S. amateur population² is not a member of the American Radio Relay League and

¹ See chart, "QST", February 1997, page 54, "ARRL Membership by Class of License" which shows 153,000 members.

² There are approximately 675,000 currently licensed amateurs in the FCC database. Another 45,000 amateurs in the FCC database have expired licenses and are in the allowed two year grace period for renewing their license.

most that do belong, do not agree with many of their positions.

(2) The League said they had been studying the restructuring issue for the past two and a half years and implied that their comments were the culmination of this long study. That is not the case.

No where in their comments does it mention that the ARRL Directors made what was thought at the time to be a final vote on restructuring of the Amateur Service. The vote, taken at their January 16-17, 1998 annual meeting, was 11 to 4 not to restructure the Amateur Service or to reduce the number of license classes or Morse code examination speeds.³

This vote took place after the Directors deliberated on the results of the World Radio Conference held in Geneva, Switzerland between October 27 and November 21, 1997. It was at this conference that the ITU declined to consider Article S25⁴ at their next World Radio Conference (WRC-99) due to its very crowded agenda as preliminarily agreed at WRC-95.⁵ The ARRL Board obviously saw no pressing need to act on the Amateur Service reorganization matter ...especially when you consider that their membership predominately believes that high speed Morse code examinations should remain.⁶

Unbelievably, the January 1998 ARRL position not to restructure

³ See ARRL Journal "QST," March 1998, page 64, paragraph 66.

⁴ Article S25 of the international Radio Regulations are the regulations covering the Amateur Service (including the Morse code requirement for operation below 30 MHz) and Amateur-Satellite Service. Previously known as Article 32, these regulations were renumbered to Article S25 at the 1995 World Radio Conference.

⁵ It was decided at WRC-97 that consideration of Article S25 should be delayed until WRC-2001. It is widely believed that the ITU will be abolishing the CW proficiency requirement when it considers the Amateur Service item.

⁶ See "Results of the WRC-99 Opinion Survey" February 1997, page 54, "QST."

the Amateur Service was adopted even though their own WRC-99 Planning Committee⁷ concluded in their final report to the ARRL Board that code examination speeds and the number of license classes⁸ should indeed be reduced.

The fact is, that the ARRL Board only agreed to go along with U.S. Amateur Service restructuring once it became apparent that the Commission was strongly considering⁹ reducing the telegraphy examination speeds to 5 WPM for all classes.

The reduction to the 5 WPM minimum speed would be legal under international law and has the side benefit of eliminating the need to grant high-speed telegraphy examination credit to handicapped examinees - some of which are thought to be undeserved.

(3) The ARRL criticized the FCC in their comments for not including the redistribution of Amateur spectrum and emissions authorized to the various license classes in their NPRM. The ARRL proposal adds additional phone spectrum at 80, 40 and 15 meters for the General and higher class amateur.

The FCC's stated objective in the Notice was to simplify and streamline regulations ...and to eliminate or modify rules which were burdensome and no longer in the public interest. A complete realignment of Amateur Service frequencies thus appears to be beyond the stated scope of this proceeding.

The public has not been given an opportunity to comment beyond the proposals and questions raised WT Docket 98-143 as required by the

⁷ The ARRL's WRC-99 Planning Committee was created by the ARRL Board at their 1996 annual meeting with instructions to report their findings back to the Board by December 17, 1996.

⁸ See "QST", March 1997, Page 56, "Member Comments Sought on Licensing Structure."

⁹ A meeting attended by high level FCC and ARRL officials was held at FCC's in Washington, DC headquarters in March 1998.

1946 Administrative Procedures Act. The Commission may therefore wish to adopt a further *Notice of Inquiry* seeking information on additional Amateur Service operational, technical and procedural amendments.

(4) The League proposal provides for four (instead of the current six) license classes ...and five examinations (instead of the current eight). The ARRL envisions that the remaining classes would be Technician, General, Advanced and simply Extra Class.

We applaud the League's return to the current license class names rather than their previously proposed Class A, B, C and D titles. This will eliminate much confusion and make it easier to blend amateurs licensed under a newly restructured program in with amateurs previously licensed. And it will also permit potential examinees to easily locate license preparation material in the publishing marketplace which is titled by these class names.

We continue to believe, however, that only three (rather than four license classes) are needed - especially if the Commission adopts a top telegraphy examination speed of 5 WPM.

The ARRL gives no justification for the necessity of two telegraphy examination speeds for the Advanced and Extra Class other than that 12 WPM "...is a reasonable level of proficiency for anyone seeking full amateur privileges..."¹⁰

These two classes require the same level of operational and technical expertise, grant access to the same frequency bands and essentially authorize the same privileges. We continue to believe, therefore that they could easily be (and should be) combined. The VECs have no objection to renaming the Amateur Extra Class to simply "Extra Class."

The League envisions that the no code Technician and General Class written examination should contain 35 questions each. We have

¹⁰ See ARRL comments, page 32, paragraph 46.

surveyed VEC members of the NCVEC and the majority have no objection to this. We originally suggested 50 questions to be more in line with the current requirements.¹¹ The VECs also have agreed that the number of questions in the Extra Class examination should be 50 as proposed by the ARRL.

We further agree with the League's suggestion that the Technician and General Class written examinations should be more oriented towards "operating" procedures and practices ...with the Extra Class emphasis being placed on more "technical" questions.

The ARRL and the VECs are in agreement on eliminating new Novice and Technician Plus Class license grants. Where we differ is on the need for these licensees to be administered Element 3(B), the General Class written examination.

While it is true that Novice and Technician Class operators have been administered very elementary questions on HF operation as part of Element 2, they have not been exposed to questions relating to the General Class. These subjects include operating frequencies, higher transmitter power levels, beacon operation, RF power amplifiers, temporary station identification, examination element preparation and administration ...and many other topics that are included in the General Class syllabus but not contained in the Element 2 syllabus.

We believe Advanced Class amateurs should also be administered the new Extra Class written examination rather than being automatically upgraded to Extra for the same reason. For example, Advanced Class operators have never been exposed to topics concerning examining Amateur Service applicants above the Technician Class which is an important function of the Extra Class VE.

In short, the various written elements contain progressively more

¹¹ The Technician class currently requires passing Element 2 (30 questions) and Element 3(A) (35 questions) - a total of 65 questions. The General Class currently requires 30 questions (Element 3(B) - a total of 95 questions.

comprehensive subject matter which relate to an applicant's frequency privileges and features of their new license class. On that basis, we do not believe that applicants should be automatically upgraded to higher classes without demonstrating needed knowledge by passing these written examinations.

(5) A new and innovative feature in the ARRL proposal would permit the Technician Class amateur to operate CW in certain General Class high frequency subbands with a maximum 200 W PEP transmitter power level without first being examined. These subbands would be at 3.525-3.700, 7.025-7.125, 10.100-10.150, 14.025-14.150, 18.068-18.110, 21.025-21.150, 24.890-24.930, and 28.000-28.300 MHz. The League's position is that licensees can't transmit CW without "knowing" Morse code. That really is not a true statement.

The ARRL did not address the reality that two-way telegraphy radiocommunications can (and are) made by using computer programs and keyboards as is the case with all other digital modes ...or how the applicant would prove manual ("receive by ear") telegraphy proficiency as required by the international treaty requirements.

From a technical standpoint, transmitting and receiving CW without "knowing" the Morse code characters is no different than conducting RTTY communications without recognizing Baudot characters. The human ear and brain can directly translate slow 2-bit characters into text, but not fast 5-bit frequency-shifted Baudot. Machines can very easily do both.

It appears that the League wants to expose amateurs to CW operation. While this may be commendable, it is clear that the ARRL proposal would violate the ITU rules since high frequency operation would take place without having to be proficient at transcribing Morse code "by ear" into received text.

It had been our belief that the international requirement to "receive correctly by ear" means that the received code must be

directly translated by using the *human* ear and brain and not assisted by machines "tuned" by human operators. Actually the word "human" does not appear in the international regulations. Does this mean that computerized "ears" meet the criteria?

Since radio receiver tuning of a CW signal with a read out by a computer does require the interaction of the human senses including the ears and hands, is it possible that the ARRL believes that the human Morse transcription requirement can be legally satisfied with "electronic support?" If this is the case, then it is an entirely new determination by the League. Certainly no other country in the world has adopted this position.

We further believe that the FCC could not enforce a requirement that Technician Class licensees receive code only by unassisted *human* ear rather than through the use of a computer program and keyboard. After reading the ARRL comments, one has to wonder why Morse code examinations at any speed are necessary since, according to the ARRL, CW operation on the HF bands without prior Morse testing is "...self-proving." It follows that if an operator can conduct a CW QSO at 20 WPM, then in effect, he/she has proved proficiency at 20 WPM.

It seems to us that if the Commission is going to "bend" or "creatively interpret" the international CW requirements, then the FCC could likewise overlook the international rules that prohibit telephony operation on HF without manual Morse code proficiency as well. The simple fact is that there is no logical reason why telegraphy proficiency is needed in order to operate in the HF voice mode.

Today, the manual telegraphy requirement remains primarily to diminish the number of HF voice amateur operators and to reduce HF frequency congestion. An undesirable result of the Morse code requirement is that it also facilitates a level of snobbishness or "elitism" which is not conducive to a healthy communications hobby.

We agree with comments that pointed out that the federal role in

regulating amateur radio is primarily to allocate bandwidth, protect public health and safety and to prevent interference to other users of the radio spectrum.¹² The Commission should carefully reconsider any regulations not related to these objectives.

II. Courage HANDI-HAMS System (CHHS)

The Courage HANDI-HAM System is an international service organization whose goal is to bring ham radio to individuals with physical handicaps. Headquartered in Golden Valley, Minnesota, HANDI-HAMS has historically campaigned for the needs of the physically challenged.¹³ The VECs especially concur in the following points made by CHHS.

It is HANDI-HAMS belief that the telegraphy examination requirement for everyone should be "one basic knowledge (five word-per-minute or slower) code test, at least as long as international agreements require Morse Code knowledge. The Disability Waiver should be eliminated, while provisions must be in place to adapt the remaining slow code testing for people with severe disabilities."

HANDI-HAMS manager, Patrick Tice, WAØTDA commented that by having a maximum code speed examination requirement of 5 WPM, people with disabilities would "...be spared the embarrassment of trying to take an 'adapted' fast code exam before a group of volunteer examiners who have no medical experience or knowledge of adaptive methodology" and the handicapped applicant "...would not be forced to incur the extra time and expense associated with the Disability Waiver."

¹² For example, see Oct. 19, 1998 comments of Alex Haynes, KW5D, Eureka Springs, AR. At Page 2.

¹³ "Courage HANDI-HAM System — A membership organization for Amateur Radio enthusiasts with various physical abilities. ...The HANDI-HAM System provides study materials and aids for persons with physical disabilities." From 1998 ARRL Handbook, Chapter 1, page 2 and 10.

CHES believes that "...should a person with a disability challenge the requirement as irrelevant and arbitrary in light of the movement of all other HF services away from code, it would be impossible to defend fast code testing and the requirement would be vacated." In short, "...such testing excludes persons with disabilities who could otherwise be able HF operators."

Indeed, there have been no enforcement or operational problems caused by Amateurs who have received waivers of the 13 and 20 WPM code requirement. Thus it appears that there is really no reason why these speeds need to be achieved by anyone.

HANDI-HAMS also asks "...in the context of communications for the Twenty-First Century; is code proficiency a necessary and elemental skill for communicating on the high frequency bands." The VECs believe it is not and agrees with the comments of HANDI-HAMS.

III. Quarter Century Wireless Association (QCWA)

QCWA is an international organization of almost ten thousand active members who were first licensed twenty-five or more years ago and currently hold amateur licenses.

QCWA agrees with the VECs position that the present six classes of amateur licenses should be reduced to three: Technician (no code required), General (5 WPM) and Extra (12 WPM.)

While we appreciate QCWA's support of three license classes, the VECs disagree with QCWA on two points. First, QCWA believes that 12 WPM is necessary for Extra Class amateurs. But like all other commenters who supported faster telegraphy testing, no justification is given why this higher speed is needed.

Secondly, QCWA envisions that operators in the three discontinued license classes (i.e. Novice, Technician Plus and Advanced Class) would be "grandfathered" into the next highest class without passing

the appropriate written examinations.

The NCVEC continues to believe that upgrading amateurs should demonstrate knowledge of the operational and technical parameters of their new license class by passing the appropriate written examinations. Each of the present written examinations cover material relating to the new class.

We are confused, however, by QCWA's belief that Novice operators and Technician Plus operators who were licensed before March 21, 1987 should be upgraded to the General Class but that "Technician licenses issued on or after March 21, 1987 should remain as Technicians. To qualify for the General Class, these operators would only have to pass Element 3(B) provided our code proficiency recommendations are adopted."¹⁴

QCWA seems to be saying that Novice operators need not pass Elements 3(A) and 3(B) to become General Class operators but that Technician Class operators with licenses granted between March 21, 1987 and February 14, 1991 must additionally pass Element 3(B).

It is not logical to automatically upgrade a Novice Class operator to the General Class without passing the requisite examinations and then require a higher class - in this case, Technician Plus Class operators with Element 1(A), 2 and 3(A) credit - to pass Element 3(B). Again, NCVEC believes that the written examinations should be passed to upgrade to General and Extra Class.

In the interest of convenience and flexibility, we do not believe that all Morse code examinations should require only one full minute of perfect copy or that the written examinations should contain essay type answer formats and higher passing grades than is now the case as

¹⁴ QCWA comments, page 2, paragraph 4. Novice Class operators receive examination credit for Element 1(A) - 5 WPM code - and Element 2, Novice theory. Technician Class operators licensed between March 21, 1987 and February 14, 1991 receive credit for Elements 2, 3(A) - Technician theory - and 1(A) but not credit for Element 3(B) - General Class theory.

suggested by QCWA. We believe the current Question Pool system with its multiple choice answer formats is an efficient and uncomplicated way to administer the required examinations.

IV: Wayne Green W2NSD/1 - publisher of 73 Magazine

Green has been licensed for 60 years and says he has "...done just about everything there has been to do in the hobby." Through his editorials in *73 Magazine*, he has a rather extensive following in the amateur community.

Green says "I see no benefit to the hobby in the maintenance of six license classes." and recommends only one license class. The VECs agree that there are indeed too many license classes, but believe there needs to be at least two classes if the FCC is to honor its international treaty arrangements which requires manual telegraphy knowledge when the amateur operation occurs at frequencies below 30 MHz. Green seems to acknowledge that reality with his statement "The ability to receive Morse code at 5 WPM should satisfy the current ITU requirements."

We agree with Green's analysis on the code issue, "Let's stop trying to force people to do things and encourage them to build their skills because it's fun. The whip doesn't work for training animals or children, so let's stop using the code test to keep interested newcomers out of the hobby."

We also concur with Green's assessment on the future need for electronic technicians and engineers: "If the U.S. is going to be competitive in the 21st Century, we are going to need millions of high-tech career oriented youngsters. Amateur radio is a wonderful way to recruit youngsters and aim them at these careers."

Giving credibility to the contention that you don't have to know

CW to copy it, a recent article in 73 Magazine¹⁵ reviews an \$89.95 Morse code decoder kit. It consists of a small microphone, a micro-processor and a 16-character LCD display which is placed near the speaker of a radio receiving a Morse code signal. When correctly tuned, the decoder recognizes and transcribes properly sent Morse code alpha-numeric characters up to 50 WPM.

V: Kenwood Communications

As a general rule, radio equipment dealer, distributors and manufacturers did not submit comments on the Notice less they be construed as supporting telegraphy de-emphasis as a means to increase the number of HF operators and therefore sell more radios. It appears that the Amateur Radio industry did not want to alienate existing HF equipment customers -- all of whom have passed higher speed CW examinations.

Kenwood Communications, one of the largest manufacturers of radio equipment in the U.S is perhaps the only radio equipment supplier that did submit comments. They also believe the licensing structure should be made more simple. CEPT (European) nations only recognize two license classes. By sharp contrast, Kenwood says "The United States, has unquestionably, the most elaborate, multi-licensing structure in the world." The VECs wholeheartedly agree.

Kenwood believes - and the VECs concur - that there is a shortage of qualified RF engineers and technical professionals. Like many other commenters, Kenwood feels "The Amateur Service has the capacity to self-educate those with an interest in RF technology. ...The licensing of persons proficient in Morse code is inconsistent with encouraging those interested in modern telecommunications to join the ranks of amateurs and to become skilled in the technical sciences."

¹⁵ "Seeing Dits and Dahs - The K2659 Morse code Decoder Kit from Velleman Electronics," by Marshall G. Emm N1FN, 73 Magazine, December 1998, page 29.

Kenwood said. "...Burdensome examination requirements on topics not relevant to a person's interest in amateur radio or their ability to operate an amateur station should be eliminated."

Kenwood generally supports the VECs proposal of three license classes: Technician, General and Extra Class and agrees that any greater speed [than 5 WPM] is unnecessary. Kenwood correctly maintains that telegraphy is no longer needed for emergency communications or disaster relief. Yet many commenters erroneously made that contention as a rationality for retaining high speed code examinations.¹⁶ The U.S. Coast Guard, the military and maritime interests are all discontinuing the use of CW for tactical, messaging, safety and distress communications -- or have already done so.

Kenwood also feels the Technician examination should be 35 questions rather than the 50 suggested by the NCVEC. In support of its position, Kenwood believes that "The amount of information currently called for in examination preparation materials available commercially is a significant obstacle to newcomers." Kenwood correctly points out that "...other interesting technical pastimes, such as microcomputing ...do not require excessive learning or memorization."

VI: Gordon West Radio School

Gordon West WB6NOA, is a major license preparation materials developer and instructor, and has been licensed for over 30 years. He is in a good position to comment on the amateur radio licensing structure since he has daily contact with Amateur Service applicants and has trained more U.S. ham operators than anyone. Similar to the VEC proposal, West also recommends three license classes: Technician,

¹⁶ Inland Empire Council, Fullerton Radio Club, Nicholas Leggett N3NL, Val E. Rose N8EXV, B.J. Pittman K5EYE, Michael Wiley, Scott R. Bullock KK7LC, Kenneth Cannaday W4NZC and others made this argument.

General and Extra Class.

We agree with West's appraisal that General code test requirement should be 5 WPM and that "...CW examinations have played too important a role in license and privilege upgrades." We disagree, however, with his recommendation that the Extra Class code speed remain at 20 WPM. West believes 20 WPM is important since it honors Extra Class licensees who have already passed 20 WPM. We do not believe it is logical or appropriate from a regulatory perspective to require Extra Class applicants to pass 20 WPM just because other operators "...have already mastered the skill at this speed." If additional Morse code proficiency certification is desirable, then this can be provided by the private sector.

The VECs do concur, however, with West's view that "...present Technician no-code operators as well as Technician-Plus operators who have not taken the General written examination must take the General written examination to acquire the new General class privileges."

VII: Barnett "Jay" Jackson, W4VG

Jay Jackson is an FCC electronics engineer currently employed with the FCC's Commercial Wireless Division of the Wireless Telecommunications Bureau. Between 1978 and 1981, Jackson was responsible for the FCC's amateur radio examination program. He suggests an innovative four license classes -- only three of which would contain formal examination elements: "Basic" (no code, with only 25 exam questions), "Intermediate" (5 WPM, also 25 questions), "Advanced" (5 WPM, 50 technical questions) and the "Expert" class conferred by "...real-world achievement and contribution to the Amateur Radio Service rather than by testing."

In essence, Jackson is suggesting three classes plus an additional class awarded for meritorious accomplishment. The VECs believe that such an award would be better bestowed by the private sector and

should not be a part of the FCC's licensing process. We agree with the reply comments of Kenneth J. Collier, KO6UX - a volunteer examiner - in which he said he believed that activity-based upgrading would present a verification problem for the VEC System.

We agree, however, with Jackson's assertion that there is a disturbing "cultural disconnect" between the newcomers on the bands above 30 MHz and the "old-timers" on the bands below 30 MHz. We believe this is caused by the high speed telegraphy requirement which precludes otherwise qualified amateurs from operating on the high frequency telephony bands.

The code prerequisite is also keeping many newcomers from joining ham associations and participating with long term licensed amateurs since their perception is that they are not wanted. Furthermore, the upgrade path to MF/HF operation is not appealing to Technician Class operators who are not motivated to invest valuable time and effort in an obsolete communications mode that they need not - and will not - use. There needs to be a "blending" of all amateurs on HF just as there was on the VHF and higher frequency bands in 1991.

VIII: No Code International

NCI is an international organization which supports the ending of all manual telegraphy testing in the Amateur Service. We agree with their position that:

- (1.) "...revitalization and realignment is absolutely necessary to assure that the ARS will be capable of meeting its public service and technical training objectives in the future."
- (2.) The FCC "...has a compelling public interest mandate, both to maintain a healthy Amateur Radio Service, and to eliminate to the maximum extent possible, unnecessary or arbitrary rules that limit access to, full participation in, and freedom of

experimentation in, the ARS."

- (3.) And the FCC should "...eliminate, to the maximum extent possible, Morse testing as a requirement for all amateur licenses; reducing the number of license classes to no more than three and reviewing the privileges afforded to each license class making certain that all test requirements for each license class rationally relate to the privileges the licensee received by virtue of passing the test."

IX: CQ Communications, Inc.

CQ is a major publisher of amateur radio magazines, books and videos. CQ agrees with the NCVEC proposal to "...replace the current six classes of license with three, equivalent in operating privileges to the current Technician, General and Amateur Extra Class. Combine current Novice and Technician-Plus licensees into the new General Class and combine the current Advanced Class licensees into the new Amateur Extra Class."

CQ also concurs that the present 5, 13 and 20 WPM code tests should "...be replaced with either a single 5 WPM test for all license classes above Technician, or a two step system with 5 WPM for General and 10 WPM for Extra." CQ said their "...preference is for a single 5 WPM exam...." CQ also suggested activity-based upgrading.

CQ additionally proposed an imaginative new "limited privilege Basic Amateur Permit (BAP)" for use by school or health-care facilities. Basically a learner's permit, the BAP would allow a holder to operate an amateur station under the general supervision of a licensed amateur. The school or health facility would be licensed as a club station with a supervising amateur as trustee. A club call sign would be issued. The permittee would be authorized to operate the club station after passing a streamlined examination on regulations and operating procedures. A BAP license would not be issued by the

Commission, instead the *Certificate of Successful Completion of Examination* (CSCE) issued under the VEC System would serve as the permit.

Basically CQ is proposing what amounts to a fourth class without the issuance of an individual call sign for use by school radio clubs. The "limited privileges" were not spelled out, but we assume the operating frequencies would be between 144 and 450 MHz unless telegraphy knowledge is included.

CQ also proposes that examination credit be conferred by expired operator licenses of any class beyond the 2-year grace period. In effect, CQ extends the grace period from 2 years to lifetime "...if a former license holder wishes to reactivate his/her license and again become an active amateur."

These new licensing innovations may have merit, but should be part of a wider ranging inquiry into Amateur Service requirements in the 21st Century.

X: Bob Vernall ZL2CA, Wellington, New Zealand

...is one of the six managers in the New Zealand-based *Organization Requesting Alternatives by Code-Less Examinations, Inc.*, (ORACLE.) Vernall says that the Morse code requirement is without a good reason "...technology and practices have moved on ...and telephony rather than telegraphy is the most used way of amateur telecommunication today."

Over the years, "...Morse code testing was mainly intended to be used as a restrictive practice to limit the number of participants on certain bands, while encouraging new usage on the higher bands that are under possible threat of shared use by other radio services. Sheltering the interests of incumbent licensees who have passed a Morse code test is discrimination without good reason when viewed from

the public perspective." We agree with that appraisal.

ZL2CA suggested two license classes: "Basic" (with 80, 15, 10 and 2 meter access at lower power) and a General full power all band license. There is no need for any Morse code examination, as no Morse code proficiency is actually needed to access amateur spectrum. Freedom of choice in operating preferences rests with individuals." He called the granting of waivers to persons with disabilities "...a form of 'reverse discrimination.'"

Vernall's arguments are basically sound, and we agree that there should be a plan in place for dealing with the likely removal of S25.5 in the fairly near future. The VECs three license class 5 WPM Amateur Service could easily be reduced to two Amateur Service classes in the future.

We agree with his belief that "The role of amateur radio on influencing career paths that support telecommunications services should not be underestimated. ...A Morse code requirement is rather unconvincing to many young persons who are literate in computer and Internet matters."

XI: Paul W. Schleck, K3FU

Scheck, a previous president of two Amateur Radio clubs is also a member of the American Radio Relay League. He is pursuing a graduate degree in Electrical Engineering at the University of Nebraska and is a student member of the Institute of Electrical and Electronics Engineers (IEEE.) His comments are very well written, reasoned and documented and deserve the Commission's consideration.

He agrees that the Morse Code issue is "...the most divisive, and emotionally-charged, to hit Amateur Radio in memorable history..." His comments contain an excellent section called "Morse Code Myths." For example, in response to the relevance of CW, he documents how the

Military Affiliate Radio System¹⁷ (MARS) and the U.S. Coast Guard have retired Morse Code operation.

He mentions other Morse code myths: "Gets through when nothing else will." Fact: Technology has been in use for decades that greatly exceeds the capability of Morse code for weak-signal reception.

Myth: "Takes up very small bandwidth in an HF environment."

Fact: Concentrating solely on minimum bandwidth ignores the fact that the true measure of communications efficiency is data rate per unit bandwidth. The newer automatic digital modes use bandwidth more efficiently than labor-intensive Morse code.

Myth: "Morse proficiency guarantees disciplined operators."

Fact: Most *Notices of Apparent Liability (NALs)* are given by the FCC to those holding the highest classes of licenses, Advanced and Extra Class.

Myth: "...eliminating Morse code proficiency represents a decline in standards." Fact: "...we are better off by not being burdened with obsolete skills, saving time for students to study other more important things."

Or as Edward Mitchell KF7VY said in his comments, "...a basic understanding of modern technologies is more valuable to the public than a similar knowledge of telegraphy. Time spent learning and maintaining proficiency in telegraphy is time not spent becoming proficient in the technologies of the modern era."

Myth: "Requiring higher speed CW exams serves as a useful filter to avoid undesirable crowding on HF." Fact: "We now have over half-million amateur HF phone users without the predicted overcrowding. ...Crowding also encourages use of under-utilized bands and new

¹⁷ "The Military Affiliate Radio System (MARS) is administered by the U.S. armed forces... All branches (Navy/Marine Corps MARS, Army MARS and Air Force MARS) require members to hold a valid U.S. Amateur Radio license... While MARS usually handles routine traffic, the organization is set up to handle official and emergency traffic when needed." *From The ARRL Handbook, 1998 edition, page 2.5*

technologies. ...Keeping the numbers down delays the development of useful technologies to more efficiently use scarce radio frequency spectrum."

He sums up by saying that "Clinging to 'weak' technologies as a principal focus of licensing requirements ...is a basic flaw of the current incentive licensing program..."

Conclusion:

The NCVEC believes that there is no justification for Morse code testing above the 5 WPM level and no reasonable arguments were presented by any commenter as to why high speed examinations are necessary. We continue to believe that a single 5 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.

The VECs believe that three license classes conferred by four examinations are currently all that is needed. This would be achieved by abolishing the Novice and Technician Plus licenses ...and combining the Advanced and Extra Class since the primary difference is the 20 WPM code examination which would be eliminated.

Existing Novice and Advanced Class licenses could be renewed or modified but no new licenses would be issued. Technician Plus licenses would be renewed as Technician, but would carry credit for the 5 WPM Element 1A code.

The (no code) Technician Class would be the VHF/UHF/Microwave entry level; the (5 WPM) General Class: the HF entry.

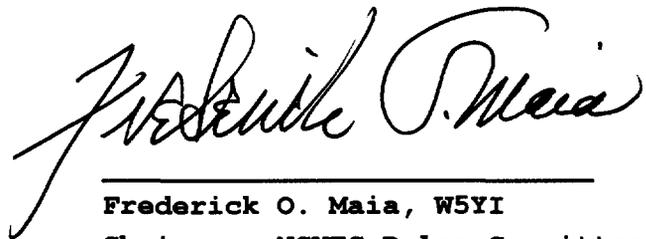
We originally believed that the Technician and General class license should require passing a 50 question multiple choice examination with 100 questions necessary to upgrade to the Extra Class. In the interest of simplicity, however, a majority of the VECs have now

agreed that the number of questions should be reduced to 35 each for the Technician and General ...and 50 for the Extra Class. This is also compatible with the number of questions in the written examinations proposed by the American Radio Relay League in their comments.

The existing question pools would be used. The new Element 3 would consist of questions taken from the Element 2 and 3A question pools. The Extra Class Element 4 examination would be prepared from the combined Element 4A and 4B question pools. These pools would be "slimmed down" to meet the statutory requirements of Section §97.523 when they are routinely reviewed by the VEC's Question Pool Committee.

We believe that the Commission may wish to look into ways to further modernize the Amateur Service and suggest that a Notice of Inquiry be issued toward that end. A plan needs to be developed to determine how the Amateur Service will meet the needs of the public in the new millennium.

Respectfully submitted:
National Conference of VECs



Frederick O. Maia, W5YI
Chairman, NCVEC Rules Committee

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