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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

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

In the Matter of	)	
	)	
Amendment to Part 13 of the Rules	)	
to Privatize the Administration	)	FO Docket No. 92-206
of Examinations for Commercial	)	
Radio Operator Licenses and to	)	
Clarify Certain Rule.	)	

To: The Commission

Motion for Leave To Accept Late Filed Comments

The National Association of Radio and Telecommunications Engineers, Inc. (NARTE), by its attorney and pursuant to Section 1.46(d) of the Commission's Rules, hereby requests leave to file comments in the above-captioned proceeding one day after the deadline, for good cause shown below.

NARTE timely prepared its comments for filing with the Federal Communications Commission on November 2, 1992. However, due to an inadvertent oversight by counsel's FCC courier, NARTE's comments in the captioned proceeding did not reach the Commission in time for filing with the Secretary's Office on November 2, 1992.

As described in the enclosed comments, NARTE is a private, non-profit organization that was established in 1982 following the Commission's withdrawal from the domestic operator licensing arena. It is comprised of approximately eight thousand certified engineers and technicians working in the fields of radio telecommunications and electromagnetic compatibility.

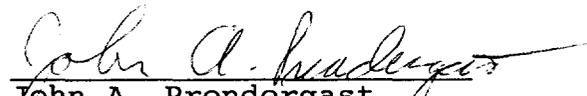
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Because of NARTE's vast experience in the area of radio operator certification/licensing, NARTE is in a position to provide the Commission with valuable assistance in formulating rules to delegate the operator's examination function to the private sector. Since the information contained in NARTE's comments would be significant in formulating the final rules, and given the submission of these comments less than one day after the comment deadline, the Commission should waive the deadline and accept the late-filed comments. See Amendment of Section 73.202, Table of Allotments, FM Broadcast Stations (Julian, California), 102 FCC 2d 27 (1985). Indeed, since the record has not been closed in this proceeding, acceptance of NARTE's comments would cause no delay, and would not prejudice any party. Accordingly, the public interest would best be served by acceptance of these comments.

Respectfully submitted,

**THE NATIONAL ASSOCIATION OF  
RADIO AND TELECOMMUNICATIONS  
ENGINEERS, INC.**

By:

  
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Washington, D.C. 20554  
Dated: November 3, 1992

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Operator Licenses and to Clarify )  
Certain Rules )

To: The Commission

COMMENTS

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## SUMMARY

The National Association of Radio and Telecommunications Engineers, Inc. ("NARTE") supports the Commission's proposal to privatize the administration of examinations for commercial operator's licenses. NARTE believes that the public interest would best be served if the examinations are administered by a small group of highly qualified entities, rather than a single entity.

The entities selected by the Commission to conduct tests for commercial radio operator licenses should be non-profit organizations who have established programs for certification of radio maintenance and repair personnel, and a record of involvement in the industry. Each examiner's officers and directors should be licensed/certified, and experienced in radio matters. The examiner should have sufficient resources and infrastructure to administer the examinations, including test centers located throughout the United States, especially in major population centers and state capitols. Procedures for ensuring test quality should be considered. FCC oversight should be minimal, since these criteria will limit examiners to those entities who provide quality test services. The fees charged by the entities selected should be the minimum necessary to administer the program without government subsidy, and should vary to some degree based on the complexity of the license to be conveyed.

The Commission should widely publicize the appointment of examiners, to ensure public acceptance and eliminate confusion in the industry about proper licensing procedures. The Commission should also consider preempting inconsistent and confusing regulations and license requirements by the individual states.

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To: The Commission

**COMMENTS OF THE NATIONAL ASSOCIATION OF RADIO  
AND TELECOMMUNICATIONS ENGINEERS, INC.**

The National Association of Radio and Telecommunications Engineers, Inc. ("NARTE") by its attorneys, hereby submits its comments in response to the Commission's September 8, 1992 Notice or Proposed Rulemaking ("NPRM") in the above captioned proceeding. As discussed below, NARTE supports the Commission's proposal to establish a formal process for privatization of radio operator's license examinations. NARTE believes that there should be a small group of qualified entities who administer the examinations; that the entities selected by the Commission should have a proven track record and resources sufficient to perform the function; and that the entities selected should be non-profit, to ensure that a high quality testing service will be provided to the public at the lowest cost, without the deleterious side-effects of a profit motive.

## I. STATEMENT OF INTEREST

NARTE is a private, non-profit organization, founded in 1982, that has sought to fill the void left when the Commission withdrew from the domestic operator licensing arena. It is comprised of approximately eight thousand certified engineers and technicians working in the fields of radio telecommunications and electromagnetic compatibility ("EMC"). NARTE has established testing centers at more than 120 locations throughout the United States, including Alaska and Hawaii. In addition, the military, through the Defense Activity for Non-Traditional Educational Support ("DANTES"), offers NARTE testing world-wide by their local education centers. Through NARTE certification, a mechanism has been provided whereby the industry can heed the Commission's encouragement in its March 20, 1985 Public Notice, FCC 85-133 Mimeo No. 35649, that its station licensees have their equipment serviced by industry certified personnel. (Additional background information on NARTE is provided as Attachment A hereto.)

NARTE has taken an active role in the domestic radio and telecommunications certification field since the Commission began deregulation of the certification process in the early 1980s (FCC Dockets Nos. 20817 and 83-322). NARTE has endeavored to provide a level of superior credentials to the

radio and telecommunications community, so that a person who successfully passes NARTE's exam will have the certification as to their ability to operate, service and maintain radio equipment in the manner licensed by the FCC.

NARTE's experience in developing a quality certification program since 1982 has allowed NARTE to encounter first hand the administrative, financial and other problems that can arise in administration of a privatized operator certification/license program. The United States Navy's Naval Air Systems Command ("NAVAIR") studied numerous entities and programs for certification of electromagnetic compatibility ("EMC/EMI") engineers and technicians. NARTE developed a program to meet NAVAIR's requirements, and was selected to be the administrative authority. The implementation of this EMC certification process has likewise provided NARTE with unique insights as to problems and solutions relative to instituting a government certification program. It is our belief that from these experiences, NARTE can assist the Commission in the successful delegation of the operator's examination function to the private sector.

**II. THE COMMISSION SHOULD ADOPT STRICT REQUIREMENTS WHICH WILL ENSURE QUALITY AS WELL AS WIDER AVAILABILITY OF ITS TESTING PROCEDURE**

**A. THE COMMISSION SHOULD AUTHORIZE A CORE GROUP OF QUALIFIED EXAMINERS**

NARTE believes that the Commission should designate a small group of qualified entities to administer the commercial radio operator licensee examinations, rather than any single entity. If a single entity is given what would amount to a monopoly over the examination process, this would not promote the benefits of "competition" in striving to develop and maintain the most efficient and reliable examination methods. This monopoly position would invite the administration of the examination based on a profit motive, without concern for continued high quality. It would also invite artificially higher examination fees, because there would be no competition for certification applications, and no competing entity to demonstrate that the examination can be administered in a more cost efficient manner. Moreover, the appointment of more than one entity would increase the chances of a greater number of examination locations becoming available to the public, which is consistent with the stated goals of the NPRM, and Section 1 of the Communications Act of 1934, as amended (the Act).<sup>1</sup>

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<sup>1</sup> Section 1 of the Act provides that the primary purpose of the Commission is to regulate the Communications industry "so as to make available, so far as possible, to all people of the United States a rapid, efficient, Nationwide, and worldwide wire and radio communications service... for the purpose of promoting safety of life and property through the

The appointment of a single entity would deprive the Commission and the public of the experience gained by the various organizations like NARTE, who have established operator certification programs in response to industry demand, following the Commission deregulation of many operator licensing requirements in the early 1980s. Moreover, it would interfere with the ability of these organizations to provide industry based certification examinations to those operators not needing an FCC license. Just as the Commission is currently flooded with unnecessary applications by those who mistakenly believe that the Commission's examination is the only acceptable certification or licensing process (See NPRM at paragraph 4), a single entity appointed by the Commission would likely be perceived by the public as the only suitable source of examinations for even the deregulated operators. This would weaken the ability of NARTE and other established industry groups to continue providing their valuable certification services, and thus would not serve the Commission's stated policy of encouraging development and

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use of wire and radio communication, ..." One of the key purposes of the licensing of radio operators is safety. Indeed, from the beginnings of operator licensing under the Radio Communications Act of 1910, CH 379, 36 Stat. 629, June 24, 1910, safety has been the overriding reason for licensing operator personnel. Increased stability and reliability of equipment has not removed the need for safety and competence accountability.

administration of industry based standards for operators not requiring an FCC license.

However, the Commission should impose strict eligibility requirements to prevent a deterioration in the quality of the examination process, as well as the possibility of ruinous competition. Pursuant to 47 USC § 154(f)(5), the examiner's fees are to be based on the costs of administering the examination. If the pool of potential licensees is spread too thin among dozens of different entities, it would be difficult for any single examiner to maintain economic viability. Examiners will then be under a great deal of pressure to increase the cost to examinees, or more likely to make ends meet by cutting corners on the examination process. This only serves to weaken the quality of radio operator skills. Also, wide open entry invites "fly-by-night" operations that have little concern for the consistent administration of a quality examination process, and will stretch the supervisory capabilities of the Commission to their limit. The criteria necessary to prevent this result are set forth below.

## B. REGULATION OF QUALIFICATIONS, POWERS AND PROCEDURES

### 1. Examiner Criteria

(a) Non-Profit Status: Given the safety concerns underlying the operator examination process, the administration of these examinations should be treated as a public trust. A requirement that an examiner entity be a non-profit organization would significantly further this goal. A profit motive in administering the exams encourages either an unwarranted increase in application fees, or the reduction of costs by taking such short-cuts as oversimplifying the examination, using the same set of questions over and over, etc. A non-profit organization will not have these same pressures on it, and can therefore more easily remain true to the goal of encouraging professionalism and competency among operators, for the protection of the public.

(b) Experience in Administering Examinations: The Commission should require that the examiner entities have substantial experience in and established procedures for administering technical certifications. Enough entities fitting this description already exist, especially those identified in the Commission's March 20, 1985 Public Notice, FCC 85-133, to provide an adequate pool of qualified examiners. Allowing entities with no experience in the

administration of examinations would only result in much higher start-up costs for these entities, thereby driving up the costs to the public unnecessarily. In this regard, the Commission should give a strong preference to the surviving members of the six entities identified in the March 20, 1985 Public Notice as private operator license examiners, when choosing the entities that will administer commercial radio operator license tests.

(c) Experience of Examiners: Any potential examiner entity should have an established record of working within the radio communications industry. The Commission should take into consideration the experience of officers and board members of the potential examiner entity. These persons should be active in the industry and already certified/licensed, in order to be eligible for an elected position. Board members should also represent a broad cross section of experience from their involvement in the industry, to ensure a thorough understanding of examination composition, insight as to potential problems and cognizance of the kinds of improvements needed in examination content and test procedures. A preference should be given to entities consisting of credentialed, certified technical personnel who are working members of the industry, especially where the entity's Board of Directors or other leadership is elected by this membership.

(d) Infrastructure and Resources: The Commission should consider only entities who can demonstrate that they have in place sufficient resources and "infrastructure" to begin working with the Commission to implement a quality examination program at minimum cost to the applicants. Again, there are a sufficient number of qualified entities such as NARTE, with test centers, trained personnel, and detailed examination procedures already in place, that it would be counter-productive to allow entities to "start from scratch." The latter would only drive up the costs to the public. The Commission should examine which entities have the greatest number of test centers, the most convenient locations and the resources to offer a quality examination on a frequent basis, at convenient hours.

(e) Test Quality: The Commission should review the initial examination and test procedures to be used by each entity. In particular, the Commission should look at the entity's procedure for updating its tests to reflect new developments in the field, and the entity's measures for ensuring the integrity of the test. For example, NARTE has the capability to computer generate individual examinations encompassing a random selection of applicable questions from a question data bank. This question bank would be updated in response to new developments in the radio field as necessary.

This would ensure that the skill level of the tested operators reflects the state-of-the-art, and reduces the chances of examination compromise. A potential examiner should be given a preference where it has procedures for consulting with major elements of the communication industry, such as local exchange carriers, interstate exchange carriers, energy and transportation telecommunication system users, major governmental communications users, and others who can evaluate the examination program, and provide the examiner with valuable feedback.

## 2. Regulatory/Operating Constraints

The implementation and enforcement of the above strict entry criteria on examining entities should be sufficient to weed out unqualified organizations, and make unnecessary any heavy handed and expensive regulation by the Commission. The presence of a few qualified examining entities will provide each one with an incentive to provide a reliable examination at convenient locations and hours, so as to vie for an appreciable share of the potential pool of applicants. At the same time, the requirement that the examiner be a non-profit organization will help to prevent "corner-cutting."

The Commission may wish to designate "minimal" requirements for examinations based on the tests that it currently uses. However, as discussed below, the Commission should not unduly restrict the ability of the examining entities to update and improve their examination. It may be sufficient for the Commission to review the initial examination to be offered by each entity, and spot-check the examinations thereafter.

The suggested criterion that examining entities be non-profit organizations will help prevent any potential conflict of interest. This is especially true if the organization is an entity such as NARTE, whose membership includes thousands of engineers and technicians from both the industry and academia. The diverse backgrounds and professionalism of these members and the responsiveness of the Board of Directors to the membership, would prevent the entity from having a conflicting interest in making the examination easy to pass. In contrast, an examining entity that has a profit motive, or is a single member of the industry, may benefit from an oversimplified exam and/or examination process.

The following measures should also help prevent conflicts of interest from playing a role in the examination process:

1. The examiner should have a formal elected board of directors made up of persons who themselves qualify under certification requirements of the entity administering the complete licensure process;
2. The examiner should have a published set of bylaws;
3. The examiner should have an established professional code of ethics; and
4. The examiner should have an established appeals process to address conflicts over technical aspects of the examination procedures. This appeals process should include authority for the appeal committee of each testing entity to coordinate its action with the appropriate Commission representatives.

3. Level of Control or Supervision by the Commission

As indicated above, the implementation of strict entry criteria should minimize the need for Commission supervision and control. The Commission may wish to spot-check examination content and procedure, to verify that the examination is being properly administered, and that it sufficiently reflects the knowledge required to be a licensee.

Complaints concerning the examination process could be directed to the Commission's field offices and/or Consumer Assistance Branch. If the FCC can persuade Congress to allow it to collect revenues that would be devoted to its enforcement efforts, NARTE would urge the Commission to adopt a requirement that a small portion of each license examination fee go into an FCC enforcement fund. NARTE would back the Commission in this effort before Congress.

#### 4. Amount of Fees to be Charged

The fees to be charged should be based on the costs needed to administer the examination without government subsidy, consistent with 47 U.S.C. § 154(f)(5). The fees should vary depending on the complexity of the license examination, since a more complex examination will entail greater cost.

For instance, NARTE has found that, in order to run a non-profit organization capable of providing continuous certification validation, and to ensure that operators keep pace with technological change, an annual renewal of operator qualifications is necessary. This ensures a potential employer that an individual is still practicing, and provides an incentive for enhanced motivation in maintaining professional currency. It also ensures a more regular revenue

flow for the examiner. NARTE's Class I engineer pays an initial and annual fee of \$60.00. By contrast, the NARTE entry level Technical Class IV fee is \$15.00. On an average, the cost to administrate the file of each person is very close to the \$35.00 fee charges by the Commission. Notwithstanding initial start-up costs for developing new examination, expanded computer capacity, etc., a \$35-\$50 initial and annual fee per person seems realistic.

5. Minimum Number of Examination Sites and Proposed Geographic Location

NARTE recommends, at a minimum, that testing locations as required in the vicinity of each state capital. However, issues such as accessibility, cost for travel, and standardization within the United States should factor into the privatization process. In larger states, it would be reasonable to require test locations in most major metropolitan areas. This requirement would not necessarily be an onerous burden. NARTE, for example, has established an accreditation and test administration program at some 120 universities and colleges throughout the United States where interested candidates for certification may take the NARTE examinations. In addition, NARTE has established Certification Review Committees at scores of companies and corporations. Furthermore, personnel seeking certification within the military may take NARTE examinations through the

military's DAN TES program. Facilities for testing should be available at as many locations and as should be as geographically diverse as possible, considering economic constraints.

6. Capability of Designing and Administering Examinations

The examining entity should be given the capability to update and improve the examination, and implement procedures to ensure the integrity of the examination process. In this regard, the Commission may consider forming a committee made up of representatives from each examiner entity to discuss problems arising from the examination and areas for improvement.

The Commission should also consider allowing each examining entity to require more stringent certification requirements than mandated by the Commission. In the alternative, the Commission should impose these more stringent requirements itself. Under the current regime, an operator passing the initial examination can renew five years later without retaking the test, even if this individual has had no intervening experience with radios. This creates the potential for an operator to step into a safety sensitive position nearly ten years after having passed the only substantive examination, without having worked in the field

in the meantime and with technology well outpacing experience. To prevent this danger, the Commission should adopt a requirement that operators certify each year that they have worked in a job or other activity requiring use of the knowledge demonstrated in the original test. If this certification cannot be made, the operator would be required to retake the initial examination at the end of his or her five-year license term.

The examination's design and structure should rely on input from a variety of sources. NARTE obtains technical input from:

1. Industry--for input on the latest techniques and technology;
2. Academia--for input from the structured, practical and theoretical viewpoint; and
3. The individual operator--for input by the experienced and real world professionals who are already licensed/certified.

As discussed above, this annual certification requirement would have the incidental benefit of providing the examiners with a more regular revenue flow, thereby helping to ensure

their financial viability, and potentially allowing a reduction in the individual examination fees. This could prove important, because NARTE believes that the Commission is very likely administering its current examination program at a financial loss. A private entity administering the current five-year renewal cycle may not be able to sustain such losses for an extended period of time.

### 7. Estimated Costs

Given the number of variables that may enter into the cost for the development and administration of the examination program, as well as the number of examining entities and the methodology (i.e., joint or individual), precise cost will require further program definition from the Commission.

Cost to the Commission will depend on the extent of the overseer role it elects to implement. It seems reasonable that one individual would be adequate to ensure standards are being maintained with respect to program administration and the generation of current, fair and comprehensive examinations.

### III. THE COMMISSION SHOULD TAKE STEPS TO AVOID PUBLIC CONFUSION ABOUT APPOINTED EXAMINERS.

The Commission should widely publish the privatization of the examination process, as well as the identities of any appointed examiner entities. Significant confusion developed in the early 1980's when the Commission withdrew from testing of deregulated operator requirements. This confusion was further compounded by the fact that the Commission continued to provide examinations and issue licenses to any applicant, regardless of whether the applicant needed an FCC license for their duties. To avoid similar confusion, the Commission should widely publicize its privatization process, and the identities of those organizations appointed to administer the exams. This publicity should be in the form of public notices, news releases, articles and notices in trade bulletins and magazines, and information printed on the operator applications and licenses. The Commission should involve the appointed examiners in this process, to maximize its effect. The Commission should also consider issuing to each appointed examiner a "certification" of their appointment, a copy of which can be disseminated to potential operator applicants so that they can be assured that the examiner is qualified.

As a final matter, the Commission should consider, either by expanding the scope of this proceeding, or by separate

rulemaking, preempting conflicting state regulation of commercial radio operators. When the Commission deregulated licensing of radio operators, some states imposed their own licensing requirement. This has resulted in confusion for the industry, and an undue burden on those operators whose duties require them to work in several different states. These state requirements may interfere with the ability of the Commission appointed examiners to carry out their function, and should therefore be preempted. The need for preemption and uniformity is further demonstrated by the recent development of uniform certification standards for the European Community. Conflicting and overly burdensome requirements for the United States telecommunications industry could place it at a competitive disadvantage to the European Community.

#### CONCLUSION

In light of the foregoing, it is respectfully requested that the Commission adopt the stringent entry criteria set forth above for potential examiners, and consider NARTE's proposal to adopt more frequent certification requirements. In the event that the Commission determines that this proposal is better considered in another proceeding, it is respectfully