



cross talk

12/24/74 SPECIAL NEWS BULLETIN OF TRW AMATEUR RADIO CLUB



Sponsored by Systems Employee Association



WAC
WAS
DXCC
FD'71
FD'73

TRW/ARC Saturday Morning Nets 10AM LT

Primary	7.280 MHz
Secondary	3.980 MHz
Novice	7.140 MHz
Simplex*	147.510 MHz

* Any time!!!

DOCKET 20282: Thanks to ARRL Headquarters, included in this special issue of the TRW/ARC CROSSTALK is a copy of the proposed FCC Docket 20282 which is expected to have broad-ranging affects on the Amateur Radio Service as it is presently known today.

All involved amateur radio operators will want to be familiar with the docket, and because there is already so much discussion on the matter on the "wireless" already, it is felt that all TRW/ARC club members would like to hear it "straight from the horse's mouth".

HAPPY HOLIDAYS HAPPY HOLIDAYS CU at SAROC!!!

The election is now official:

President	Frank Cartier	WA6RAY
Veep	Joel Wineman	WA6WRB
Secretary	Oliver Saunders	W6OIC
Treasurer	Sue Kennedy	WN6TXV
Act. Mgr	Dave Gilmore	WB6IDJ
Trustee	Carl Rothrock	W6MYC (W6TRW)
Past-prez	Frank Halligan	W6RLN

*** MEETING REMINDER *** R2-1055
Always the last Wednesday at noon
(Editor's Note: See you next year!!!)

THE AMERICAN RADIO RELAY LEAGUE, INC.

ADMINISTRATIVE HEADQUARTERS NEWINGTON, CONNECTICUT, U. S. A. 06111

December 18, 1974

QST
OFFICIAL ORGAN

TO ALL AFFILIATED CLUBS:

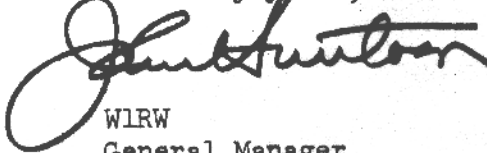
On December 4, 1974, the Federal Communications Commission issued an extensive Notice of Proposed Rule Making concerning operator classes, privileges and requirements in the Amateur Radio Service. This action has been anticipated for some time, as you have noticed in QST and perhaps other magazines and club papers, and is commonly called the "restructuring" docket. It is number 20282, and is the result of 34 petitions by individual amateurs and clubs (and a few from citizens band groups), plus one by ARRL.

On December 9, the Commission's public information office issued a news release describing the highlights of the proposal, and the essence of this bulletin was transmitted almost immediately via WLAJ and of course relayed to the League directors and assistants. But it was not until earlier this week (December 16, to be exact) that the full text of the proposal became available. Because it is so sweeping in its effect on amateur radio, present and future, we feel it important to get it into general distribution as soon as possible. The enclosure is another service to you as an affiliated club of the League.

The Commission has allowed six months for comment, so this permits us all to give careful attention to the proposals, discuss them at club and other meetings, and convey views to our individual division directors. The subject will certainly be a major point on the agenda of the Board meeting next month, but it is unlikely that any decisions will be reached so early in the comment period. Thus while there is no urgency in forming conclusions, we want to get the facts in your hands promptly, especially because there appears to be quite a bit of word-of-mouth misinformation spread on the air.

Obviously 1975 will be a "year of decision." Let us chart the future course only after calm, careful and unemotional appraisal of this FCC proposal.

Sincerely yours,



WLRW

General Manager

JH:mct
Enclosure

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

In the Matter of)	RM-1016, 1363, 1454
Amendment of Part 97)	1456, 1516, 1521, 1526
of the Commission's Rules)	1535, 1568, 1572, 1602,
concerning operator classes,)	1615, 1629, 1633, 1656
privileges and requirements)	1724, 1793, 1805, 1841
in the Amateur Radio Service.)	1920, 1947, 1976, 1991
)	2030, 2043, 2053, 2149
)	2150, 2162, 2166, 2216
)	2219, 2256, 2284, 2449

NOTICE OF PROPOSED RULE MAKING

1. The Commission has before it the above petitions (also listed in more detail in Appendix I) for rulemaking. Principally, petitioners are seeking amendment to the Rules for the Amateur Radio Service regarding operator classes, requirements, and privileges. Some desire additional privileges for only one specific operator license class, or desire lower requirements for one specific class. Others want more extensive amendments, such as the deletion, or addition, of an entire license class. Some would establish a new "Hobby" operator license class, having no telegraphy skill requirement. Of these, RM-1841, RM-1991, and RM-2053 would have this operator class in the Citizens Radio Service. Since operation of a radio station as a hobby or diversion, i.e., an activity in and of itself¹, is prohibited in the Citizens Radio Service, we consider such operation to be one more suitable to the Amateur Radio Service. Thus these three petitions are included in this proceeding. RM-1633, RM-1656, RM-1793, and RM-1841 are also included in Docket 19759, but will be considered herein to the extent applicable. Additionally, petitions RM-1947 and RM-2256 contain proposals otherwise pertaining to operator privileges and are included herein for that reason.

2. RM-1629 relates to the possibility for conducting operator examinations at places other than regular Commission examination points by persons other than Commission employees. Since the entire matter of amateur radio operator examinations will be under consideration in this proceeding, it is also incorporated.

3. The type of amendments requested by the petitioners cover a broad scope of thoughts and ideas. In summary, the salient requests are:

- a. Authorize some, or all, Novice Class privileges to the Technician Class.
- b. Permit a person to hold both a Novice Class license and a Technician Class license.
- c. Authorize some privileges in the 144-148 MHz frequency band to the Novice Class.
- d. Authorize all of the 144-148 MHz frequency band to the Technician Class.
- e. Authorize some privileges in the 28-29.7 MHz frequency band to the Technician Class.
- f. Reallocate the frequency subbands among the various license classes.
- g. Establish new frequency subbands for incentive purposes in the 1800-2000 kHz band.
- h. Authorize Amateur Extra Class operator privileges to Advanced Class operators.
- i. Limit transmitter power privileges for General Class operators to 250 watts on the 3.5 MHz, 7.0 MHz and 14.0 MHz frequency bands.
- j. Limit transmitter power privileges for all operator classes to 300 watts on amateur frequency bands below 30 MHz.

- k. Specify maximum transmitter power in terms of output.
- l. Establish a new Hobby Class license, or a new VHF Telephony Class license having no telegraphy requirements or privileges.
- m. Establish a new Beginner Class and a new Code Class of operator licenses.
- n. Combine the Novice Class license and the Technician Class license into a new VHF Telephony Class.
- o. Establish a new Intermediate Class license and a new Communicator Class license.
- p. Establish a new Advanced Technician or First Class Technician Class license.
- q. Discontinue the Conditional Class and Technician Class operator license.
- r. Issue the Amateur Extra Class operator license for life.
- s. Reduce Element 1(B) telegraphy requirement from 13 words per minute to 10 words per minute.

Obviously we cannot accommodate all of these requests because some are in conflict with others. We do not believe it is desirable to deal with these petitions on a piecemeal basis, since many are interrelated. Accordingly, we conclude the time is propitious for a review of our entire amateur licensing structure. To this end, we have reviewed the petitions carefully, together with the existing system of operator privileges and requirements, against the fundamental basis and purpose of the Amateur Radio Service. The following represents our best forecast of the direction we should move in this matter.

4. We recognize the desire by some amateurs, and would be amateurs, as expressed in RM-1633, RM-1793, and RM-1976, for a class of amateur operator license having requirements that do not include a knowledge of telegraphy. Although every amateur radio operator license has traditionally required the applicant to demonstrate some level of proficiency in International Morse Code, goals within the basis and purpose of the Service could be met, at least in part, without this requirement. Moreover, as several of the petitioners point out, the International Radio Regulations do allow the Commission to waive the requirement for an amateur to "... have proved that he is able to send correctly by hand and to receive correctly by ear, texts in Morse code signals ..." ² in the case of stations only operated above 144 MHz. A survey and analysis ³ conducted in 1971 indicated that there may be as many non-licensees interested in amateur radio activities, if not more, than there are persons already licensed in the Amateur Radio Service. The most often mentioned reason for not obtaining an amateur license is the telegraphy requirements. We are aware the need for, and the use of, telegraphy in amateur radio communications is much less on amateur frequency bands above 50 MHz than it is on the amateur frequency bands in the High Frequency (3-30 MHz) and Medium Frequency (.3-3 MHz) range, where spectrum conservation, tolerance to interference, and other factors, make telegraphy an important mode of amateur radio-communication. We believe, under carefully established provisions, a new "telephony-only" type of operator license, limited to frequencies above 144 MHz, could and should be incorporated into the Amateur Radio Service.

¹See Section 95.83(a)(1)

²Radio Regulation Annexed to the International Telecommunication Convention (Geneva 1959) Article 41, Section 3(1)

³A Survey and Analysis of the Citizens Radio Service PB 204 595

5. The present operator license structure is shown in Figure 1. For all intents and purposes there are ten classes of operator licenses available in five ascending levels of operator privileges. Qualification for an operator license is established by means of the various examination elements shown in Figure 1. These may be administered either by a Commission examiner or by a volunteer examiner through the mail examination system. The Amateur Extra (C) Class, the Advanced (C) Class, and the Conditional (P) Class licenses are issued to physically disabled applicants qualifying on the basis of a mail examination administered by a volunteer. The Conditional Class license is issued to applicants qualifying on the basis of a mail examination administered by a volunteer because of distance or other unusual difficulty in appearing at a regular examination point. The Technician (C) Class and Novice Class licenses are issued to applicants qualifying on the basis of a mail examination administered by a volunteer, the normal procedure for these license classes. Except for the Novice Class license and the Conditional Class license, the absence of the designator (C) or (P) following the operator class on the license means the licensee has qualified before a Commission examiner, and is not subject to re-examination. Any licensee qualifying on the basis of mail examination may be required by the Commission to appear before a Commission designated examiner for re-examination. Periodically, a sample number of licensees who have obtained their licenses on the basis of a mail examination are selected at random and asked to appear in order to verify the validity of the mail examination system. Those who do not appear, and those who do not pass the re-examination, are subject to license cancellation.

6. The privileges associated with each operator license class are intended to provide the necessary incentives for amateurs to upgrade their skills. This system has been largely responsible for thousands of amateurs to upgrade, particularly to Advanced Class and to Amateur Extra Class. The current number of operators in each license class is shown in Figure 2. While it is gratifying to see even the limited success of this system toward fulfilling the basis and purpose of the Amateur Radio Service, it is a desirable goal for most amateurs to reach a higher operator class, say the Advanced Class, or even the Amateur Extra Class.⁴

7. An inherent principle in arriving at any new licensing system is a logical relationship between the qualification requirements and the operator privileges authorized at each license class level. For instance, it would not be rational to require an applicant to demonstrate a certain specific proficiency in order to qualify for a particular operator license class which authorized no corresponding privileges requiring that proficiency. Conversely, an operator license class should not authorize significantly more privileges than the requirements for that license class reasonably justify. While we believe there are the means available within the Amateur Service to satisfy the reasonable needs of most United States citizens having a genuine interest in pursuing radio activities within the basis and purpose of the Service, there are basic limitations brought about by practical realities. For example, the vast array of interests and levels of ability among amateurs must be provided for within a fixed number of different operator license classes. The resources available to the Commission for regulating the Service are not unlimited. Issuing licenses, preparing and conducting examinations, monitoring the frequencies, en-

forcing the regulations, etc., are all activities that must be provided by the Commission. In this proceeding, we are moving on the assumption the amateurs' record of cooperation and assistance will continue in the future, and an unduly large increase in the Commission's workload will not be necessary.

8. We are proposing in this proceeding to establish a new *Communicator Class* operator license, having no telegraphy requirements nor privileges. Operation under this license would be limited in a manner similar to that of the current Novice Class, except frequency privileges would be above 144 MHz. The objective would be to enable beginners to enter the Amateur Radio Service and, through the experience gained by operation of a low-power radio-telephony station, develop the necessary interest and skill to qualify for higher class operator licenses.

9. Those petitions calling for another new operator license class above the current Technician Class raise significant questions regarding the scope of the Technician Class as presently constituted. For example, in RM-1535, the American Radio Relay League (ARRL) states:

"It is readily apparent from the various pronouncements of the Commission over the years and from the present interests and operations of the Technician Class licensees that the purposes for which the Technician Class was established . . . require review. It is respectfully suggested that any Notice of Proposed Rule Making invite comments and suggestions for major revisions of the Technician Class license . . . In numerous disasters . . . including the Alaskan earthquake in 1964 and the recent Hurricane Camille, the contributions of Technicians in providing internal communications have been valuable beyond estimation. Participation by Technicians in the League's Amateur Radio Emergency Corps (AREC) has grown over the years. The evolution of Technicians as communicators as well as experimenters . . . since the class was established must be recognized."

Although interest in the communication aspects of amateur radio has emerged among the some 49,000 Technician Class licensees, apparently they are not sufficiently persuaded by the additional communication privileges in the High Frequency (HF) and Medium Frequency (MF) amateur bands afforded to General Class licenses to the extent of increasing their telegraphy skill from 5 words to 13 words per minute, the only real difference in qualification between the two license classes. The needs and interests of this group probably are fully satisfied by the operation of an amateur radio station in the VHF (Very-high Frequency) regions and above. Accordingly, we can conclude technological and operational developments by amateurs in the VHF, and possibly in the UHF (Ultra-high Frequency) bands, have reached the point where the interest to amateurs is comparable to, if not already exceeding, that in the MF and HF "shortwave" bands. Therefore, in order to provide meaningful incentives for amateurs interested in this part of the radio spectrum to upgrade their skills, the incentive principles should also be applied for these bands similar to those now in effect in the shortwave bands. A

⁴Section 97.1(c) states as one of the principles expressing a fundamental purpose of the Amateur Radio Service: "Encouragement and improvement of the Amateur Radio Service through the rules which provide for advancing skills in both the communication and technical phases of the art."

new higher class operator license comparable in requirements and privileges to the Advanced Class, except based upon operation above 29 MHz, may be desirable. Obviously, for this new higher class license, any additional telegraphy skill is not meaningful since telegraphy is not a major communication mode in these frequency bands. However, other modes, such as television, remote control, facsimile, repeaters etc., are very meaningful, and need to be emphasized. Therefore, we are proposing another new operator class license, the *Experimenter Class*, as the means toward fulfilling these needs.

10. We have examined several possible revised operator license class structures in a search for the best way to incorporate the proposed Communicator Class and the proposed Experimenter Class licenses. As broad objectives, we desire to 1) preclude, or at least minimize, any adverse impact upon presently licensed amateurs, 2) closely relate requirements to privileges for each license class, 3) provide realistic upgrading steps and incentives, 4) provide the opportunity and flexibility for persons interested only in shortwave radio, or only in VHF and above, or interested in both, to obtain a license and pursue their particular interests. As a result, the structure we are proposing is shown in Figure 3, and the specific proposed rule amendments are given in Appendix II. In general, we favor this structure because it seems to more fully reflect our objectives and to satisfy most of the objectives of the petitioners. Two series of operator license would be offered, Series A and Series B. Amateurs would be permitted to hold *one* operator license permitting privileges in one or both series. For example, an amateur could hold an operator license authorizing Novice Class privileges in Series A and also Technician Class privileges in Series B, a request asked for by several petitioners. Operator licenses in Series A would authorize only privileges on amateur frequencies below 29 MHz, and operator licenses in Series B would authorize only privileges on amateur frequencies above 29 MHz. Operator licenses would normally be issued for a 5 year renewable term, including the Communicator Class and the Novice Class in order to compensate for any increased administrative burdens resulting from the proposed amendments. (Novice Class licensees are currently issued on a 2 year, non-renewable basis, no filing fee). Section 303(L)(1) of the Communications Act of 1934 does allow us to issue an operator license for life, as requested for the Amateur Extra Class in RM-2030. Under our current rules, the operator license⁵ is always combined with the Primary station license which cannot be granted for a term longer than 5 years, a requirement of Section 307(d) of the Act. We are proposing to adopt the request. Our records indicate very few amateurs drop out of amateur radio after they have attained the Amateur Extra Class. The licensee would still be required to renew his station license(s) every five years, so in effect, this proposed rule would amount to eliminating the need to retake the examinations should the amateur neglect to renew his license.

11. Under the proposed license class structure, new Advanced Class licenses and General Class licenses would no

longer carry requirements and privileges above 29 MHz. The Experimenter Class and the Technician Class would be the counterpart operator licenses in Series B, and would not carry any requirements and privileges in Series A frequency bands. The current Amateur Extra Class would be shortened in name to Extra Class, and would authorize full amateur privileges in both series. We are proposing to discontinue the written examination and the exclusive telephony segments available only to this class. The material in the current Element 4(B) examination required for Amateur Extra Class would be combined with the material for the current Advanced Class Element 4(A) and, together with other new material, be used in new examination Elements 4(A) and 4(B) for the Advanced Class and Experimenter Class respectively. Material related to the shortwave domain would be used in 4(A) and material related to the other domains would be used in 4(B). After obtaining both the Advanced Class and Experimenter Class, an amateur would then only need pass the Element 1(C) 20 word per minute telegraphy examination to qualify for the Extra Class. Because of this additional telegraphy requirement, the Extra Class would continue to have exclusive telegraphy subband privileges.

12. Under the proposed license structure, every currently licensed amateur radio operator would automatically be eligible to renew upon application, his current operator license to include privileges in at least one, and in most cases both series without further examination. Table 1 illustrates the highest class, or classes, of operator license that could be obtained without further examination.

13. Both of the proposed license series would be based upon three levels of difficulty: a beginner level, an intermediate level, and an advanced level. Ideally, this type of system would offer a newcomer the opportunity to enter the Amateur Radio Service at the beginner level with a minimum of proficiency, gain the experience and practical knowledge necessary to qualify for the intermediate level, and then move on to the advanced level. The privileges authorized at both the beginner and intermediate levels would be only those necessary to provide the desired experience for upgrading. Similarly, the related qualification requirements would be only the minimum necessary to insure that the licensee understands the privileges, limitations, and responsibilities associated with the license, with particular emphasis on methods for properly evaluating emissions of the type(s) authorized by the license.

14. We are proposing three principal areas of operator privileges: operating frequencies, emissions, and maximum transmitter power. For Series A, the authorized frequency bands would be basically the same as at the present below 29 MHz, except the exclusive telephony segments reserved to the Amateur Extra Class would be also available to the Advanced Class. In Series B, the Technician Class would be authorized all amateur frequencies above 50 MHz, thus gaining additional frequencies 50.0-50.1 MHz and 144-145 MHz. The Experimenter Class would be authorized all above 29 MHz, and the Communicator Class all above 144 MHz. The Extra Class and Experimenter Class would be authorized all amateur emissions. The Advanced Class would be authorized all amateur emissions permitted below 29 MHz. The General and Technician Classes would be authorized emissions A1, A3, and F3. The Novice Class would continue with A1 only, while the new Communicator Class would be permitted emission F3. Related examination

⁵Although large certificates are awarded to Amateur Extra Class licensees upon request, the certificates do not satisfy the availability requirements of Section 97.83

elements would contain questions concerning the technical and operational aspects of the emissions authorized.

15. In proposing maximum transmitter power levels, we have taken into consideration a number of factors. Amateur transmitters have not been a significant source of interference to other services, and where there has been a problem, amateurs have been very cooperative. Also, amateurs, by and large, do use the minimum transmitter power necessary to conduct their communications. Therefore, there should be no real problem if the limits were to be increased in some instances. We would like to improve the technique specified in the Rules for determining power. Modern communications requires better methods for determining transmitter power than the "plate voltage times current" method. We are proposing to specify the maximum transmitter output in terms of peak envelope power (PEP), except at the beginner level where the emissions authorized do permit a fairly accurate measurement to be made of the input power using the method now specified. Under current rules and practices, the maximum output peak envelope power that could be developed would be on the order of 2000 watts (100% modulated, full carrier, double sideband A3). Specifying this level as advanced amateur practice, and 6 dB (approximately one "S" unit) as intermediate amateur practice (500 watts PEP output) is the method used to establish these proposals. An additional 6 dB lower step (250 watts input approximates 125 watts output PEP for A1 and F3 emissions) would be the beginner level.⁶

16. The requirements for a new license, as shown in Appendix II, are similar to those now in effect, except the content of the various examination elements would be adjusted to more closely correlate with the privileges for each particular license class. While we are not proposing to lower, or increase, the telegraphy speed requirements, we are proposing a modification in the manner of testing. In RM-1724, the petitioner claims most operators must pass through a "code hump" between the speeds of 11 and 13 words per minute. Possibly the 5 wpm rate and the 10 wpm rate require the same skill level. In any event, the 13 wpm rate does require a skill level above that required for a 5 wpm rate. Otherwise there would be no point to have both a Technician Class and a General Class under the present rules, since the two skill levels are the only difference between the requirements. Therefore, we are not proposing any changes in the telegraphy examination speeds.

17. Under the proposed system, the operator license for an amateur qualifying by means of a mail examination on the basis of a protracted physical disability would have the letter (D) inserted following the operator class [example: Advanced (D) Class]. A license of this type would be renewable without re-examination upon satisfactory showing the disability continued, and they could not appear for a regular Commission supervised examination. Otherwise, they would be required to demonstrate their proficiency through re-examination. The operator license of an amateur qualifying by means of a mail examination on the basis of difficulty in traveling to a regular Commission examination point, would have the letter (C) inserted following the operator class (example: General (C) class). The only purpose of this conditionally issued type of license would be to provide a temporary authorization until the person could qualify before a Commission examiner. Hence, these

licenses would not be renewable, since it would not be unreasonable to expect a conditionally licensed amateur to travel to one of the many Commission examining points sometime within the five year period. He would then have to successfully complete a regular Commission supervised examination in order to continue as an amateur radio operator.

18. In the best interests of the Amateur Radio Service, and to be fair to all amateurs, we believe that every applicant should clearly establish his qualifications for the privileges authorized by an amateur radio operator license. Overall, our experience indicates mail examinations are not as effective as Commission supervised examinations in establishing qualifications. Because of our experience in re-examining amateur radio operators, and considering the proposed amendments may place additional demands upon a mail examination system, we are proposing some amendments in Appendix 2 intended to improve the system. Only an Extra Class licensee would be eligible to serve as a volunteer examiner for all examination elements. Advanced Class licensees would be eligible to administer examination elements for the General (C) and (D), and Novice Classes. Experimenter Class licensees would be eligible to administer examination elements for the Technician (C) and (D), and the Communicator Classes. Another proposal is to increase the required number of persons administering a volunteer examination. The second person may be the holder of any class of amateur operator license.

19. A specific call sign proposal is not included in this proceeding. However, because of the ramifications of this proposal, some relative comments are appropriate. *Existing licensees* will be able to retain current call signs if desired, and if authorized for both privileges, the same call sign may be used in both Series A and B. Licensees in Series B entering amateur radio as a result of this proceeding, will be issued a distinctive call sign for operation in that Series. If a later authorization for Series A privileges is granted, the single resulting call sign will reflect the dual Series authorization. Under this proposal, Technician Class licensees could obtain Novice privileges in Series A without examination, and therefore could retain their present call signs if desired. Further details will be contained in the call sign proceeding to be issued.

20. In view of the extensive amendments to the rules requested by the petitioners, and those proposed herein, it is imperative those submitting comments carefully consider the future needs of the Amateur Radio Service. To this end, we are allowing more than the normal amount of time for suggestions and comments to be filed. These proposals represent our best thoughts in these important matters. We are interested in receiving comments from informed amateurs in these areas.

21. Authority for the proposed rule changes herein is contained in Sections 4(i) and 303 of the Communications Act of 1934, as amended.

22. Pursuant to applicable procedures set forth in Section 1.415 of the Commission's Rules, interested persons may file comments on or before June 16, 1975, and reply comments on or before July 16, 1975. All relevant and timely comments and reply comments will be considered by the Commission before final action is taken in this proceeding. In reaching its decision on the rules which are proposed herein, the Commission may also take into account other relevant information before it, in addition to the specific comments invited by this Notice.

⁶ See footnote 1, appendix II

23. In accordance with the provision of Section 1.419 of the Commission's Rules and Regulations, an original and 14 copies of all comments, pleadings, briefs, or other documents shall be furnished the Commission.

24. All filings in this proceeding will be available for examination by interested parties during regular business hours in the Commission's public reference room at its headquarters in Washington, D.C. (1919 M Street, N.W.).

FEDERAL COMMUNICATIONS COMMISSION
Vincent J. Mullins
Secretary.

Adopted December 4, 1974

Released December 16, 1974

APPENDIX I Petitioners

1. RM-1016 D. McGarrett, Centerreach, New York
2. RM-1363 K. J. Deskur, Endwell, New York
11. RM-1454 S. C. Davis, Manchester, Connecticut
4. RM-1456 W. Green, Peterborough, New Hampshire
5. RM-1516 E. W. DeCloedt, Cupertino, California
6. RM-1521 W. A. Welch, II, Wappong, Connecticut
7. RM-1526 E. C. Lips, Pittsburgh, Pennsylvania
8. RM-1535 American Radio Relay League, Newington, Connecticut
9. RM-1568 E. E. Gooch, Brilliant, Ohio
10. RM-1572 C. DeWitt, Omaha, Nebraska
11. RM-1602 C. R. Clark, Notre Dame, Indiana
12. RM-1615 C. C. Drumeller, Warr Acres, Oklahoma
13. RM-1629 M. K. Gormley, APO, New York, New York
14. RM-1633 W. Green, Peterborough, New Hampshire
15. RM-1656 Ronald A. Reed, West Los Angeles, California
16. RM-1724 R. A. Cowan, Port Washington, New York
17. RM-1793 G. Jacobs, Silver Springs, Maryland, S. F. Meyer, Linden, New Jersey
18. RM-1805 Radiotrician: Confederation, Grouse Creek, Utah
19. RM-1841 United CB'ers of America, Detroit, Michigan
20. RM-1920 C. W. Tazewell, Baltimore, Maryland
21. RM-1947 R. R. Dopmeyer, Opelousa, Louisiana
22. RM-1976 Edgewood Amateur Radio Society, Baldwin Park, California
23. RM-1991 U. S. Citizens Radio Council
24. RM-2030 L. E. White, Closter, New Jersey
25. RM-2043 R. E. Heimberger, Shaker Heights, Ohio
26. RM-2053 Hercules Radio and Recording Studio, Daytona Beach, Florida
27. RM-2149 M. R. Wardean, Venice, California
28. RM-2150 W. A. Schroeder, Cherry Hill, New Jersey
29. RM-2162 Falmouth Amateur Radio Association, Woods Hole, Massachusetts
30. RM-2166 W. Brady, Norwalk, California
31. RM-2216 H. M. Krawetz, Sunnyvale, California
32. RM-2219 J. C. Hallford, Ft. Stockton, Texas
33. RM-2256 M. S. Donnell, San Jose, California
34. RM-2284 S. E. Green, et al, Austin, Texas
35. RM-2449 P. Williams, Santa Cruz, California

APPENDIX II

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

1. 97.5 is amend to read:

97.5 *Classes of operator licenses.*

(a) The following Series A operator licenses authorize operations in the amateur radio frequency bands below 29 MHz:

(1) *Advanced Class, Advanced(C) Class, Advanced(D) Class.* Licenses to conduct amateur radio communications using advanced level amateur practices.

(2) *General Class, General(C) Class, General(D) Class.* Intermediate grade licenses to conduct amateur radio communication for the purpose of developing individual proficiency toward qualifying for the Advanced Class license.

(3) *Novice Class.* Introductory grade license to conduct amateur radio operation for the purpose of developing proficiency toward qualifying for the General Class license.

(b) The following Series B operator licenses authorize operations in the amateur radio frequency bands above 29 MHz:

(1) *Experimenter Class, Experimenter(C) Class, Experimenter(D) Class.* Licenses to conduct amateur radio communication using advanced level practices.

(2) *Technician Class, Technician(C) Class, Technician(D) Class.* Intermediate grade licenses to conduct amateur radio communication for the purpose of developing individual proficiency toward qualifying for the Experimenter Class license.

(3) *Communicator Class.* Introductory grade license to conduct amateur radio communication for the purpose of developing individual proficiency toward qualifying for the Technician Class and Novice Class licenses.

(c) The Extra Class and Extra(D) Class licenses authorize amateur radio operation using all authorized privileges, including certain exclusive privileges.

(d) The designator(C) following the type of operator license class indicates the license is conditionally issued because the licensee qualified under the provisions of Section 97.28.

(e) The designator (D) following the type of operator license class indicates the license is conditionally issued because the licensee qualified under the provisions of Section 97.27.

2. 97.7 is amended to read as follows:

97.7 *Privileges of operator license.*

The following operating privileges are authorized by the class of operator license indicated for all new amateur licenses issued after (effective date of new rules). Amateurs licensed prior to the date will receive a new license upon the first renewal after (effective date of new rules).

(a) *Extra Classes.* All amateur radio operator privileges.

(b) *Advanced Classes.* All amateur radio operator privileges below 29 MHz, except for frequencies 3500-3525 kHz, 7000-7025 kHz, 14000-14025 kHz, and 21.000-21.025 MHz.

(c) *General Classes.*

(1) Frequencies 1800-2000 kHz, 3525-3775 kHz, 3890-4000 kHz, 7.025-7.150 MHz, 7.225-7.300 MHz, 14,025 - 14,200 kHz, 14,275-14,350 kHz, 21.025-21.250 MHz, 21.350-21.450 MHz and 28.0-29.0 MHz within the limitations of 97.61.

(2) Emissions A1, A3, and F3.

(3) Except for power limitations set forth in Section 97.61, the maximum transmitter output power shall not exceed 500 watts peak envelope power.

(d) *Novice Class.*

(1) Frequencies 3700-3750 kHz, 7100-7150 kHz, (7050-7075 kHz when the amateur radio operation is not within Region 2), 21.100-21.200 MHz, and 28.100-28.200 MHz.

(2) Emission A1.

(3) 250 watts input power to the transmitter final amplifying stage supplying radio frequency energy to the antenna, exclusive of power for heating the cathode of a vacuum tube(s), within the limitations of Section 97.67.

(e) *Experimenter Classes.* All amateur radio operator privileges above 29 MHz.

(f) *Technician Classes.*

(1) All amateur frequencies above 50 MHz.

(2) Emissions A1, A3, and F3.

(3) Except for power limitations set forth in Section 97.61, the maximum transmitter output power shall not exceed 500 watts peak envelope power.

(g) *Communicator Class.*

(1) All amateur frequencies above 144 MHz.

(2) Emission F3.

(3) 250 watts input power to the transmitter final amplifying stage supplying radio frequency energy to the antenna, exclusive of power for heating the cathode of a vacuum tube(s), within the limitations of Section 97.67.

3. 97.9 is revised to read as follows:

97.9 *Eligibility for a new operator license.*

Any citizen or national of the United States is eligible to apply for an amateur radio operator license. A person may be issued no more than one operator license in Series A, and no more than one in Series B. A holder of an Extra Class operator license may not hold any other amateur radio operator license issued by the Commission. The requirements for each operator class are:

- (a) *Extra Class*: Applicant shall have successfully completed examination elements 1(C), 2(A), 2(B), 3(A), 3(B), 4(A), and 4(B).
- (b) *Advanced Class*: Applicant shall have successfully completed examination elements 1(B), 2(A), 3(A), and 4(A).
- (c) *General Class*: Applicant shall have successfully completed examination elements 1(B), 2(A), and 3(A).
- (d) *Novice Class*: Applicant shall have successfully completed examination elements 1(A) and 2(A).
- (e) *Experimenter Class*: Applicant shall have successfully completed examination elements 1(A), 2(B), 3(B), and 4(B).
- (f) *Technician Class*: Applicant shall have successfully completed examination elements 1(A), 2(B), and 3(B).
- (g) *Communicator Class*: Applicant shall have successfully completed examination element 2(B).

4. Revise headnote and Section 97.13 to read as follows:

97.13 Eligibility for renewal of operator license.

(a) An amateur radio operator license, other than a conditionally issued license, may be renewed upon proper application, in which it is stated that the applicant is fully qualified in the requirements for the original license of the class being renewed. If the applicant is not fully qualified, the license will not be renewed, and the applicant may apply for a new operator license if and when he qualifies by examination at a later date.

(b) If a license, other than a conditionally issued license, is allowed to expire, application for renewal may be made during a period of grace of 1 year after the expiration date. During this 1 year period of grace, an expired license is not valid. A license renewed during the grace period will be dated currently and will not be backdated to the date of its expiration.

(c) Application for renewal of an amateur radio operator license shall be submitted on FCC Form 610 and shall be accompanied by the applicant's operator license or photocopy thereof. Application for renewal of unexpired licenses must be made during the license term. In any case in which the licensee has, in accordance with the provisions of this section, made timely and sufficient application for renewal of an unexpired license, no license with reference to any activity of a continuing nature shall expire until such application shall have been finally determined.

(d) Operator licenses obtained on the basis of Section 97.28 are not renewable.

(e) Operator licenses obtained on the basis of Section 97.27 are not renewable unless the application is accompanied by a current physician's affidavit.

(f) Extra Class operator licenses are issued for the life of the licensee, and do not have to be renewed.

5. Add a new headnote and Section 97.15 to read as follows:

97.15 Modification of operator license.

(a) Application for modification of an amateur radio operator license shall be submitted on FCC Form 610 and shall be accompanied by the applicant's operator license(s) or photocopy(s) thereof.

(b) When only the name of the licensee is changed, or when only the mailing address is changed, a formal application for modification of license is not required. However, the licensee shall notify the Commission promptly of these changes. The notice, which may be in letter form, shall contain the name and address of the licensee as they appear in the Commission's records, the new name and/or address, as the case may be, the primary station call sign and class of operator license. The notice shall be sent to Federal Communications Commission, Gettysburg, Pennsylvania 17325 and a copy shall be kept by the licensee until a new license is issued.

6. Revise Section 97.21 to read as follows:

97.21 Examination elements.

Examination for amateur radio operator privileges will comprise one or more of the following elements:

- (a) *Element 1(A)*: Slow speed telegraphy test in International Morse Code at 5 words per minute.
- (b) *Element 1(B)*: Intermediate speed telegraphy test in International Morse code at 13 words per minute.
- (c) *Element 1(C)*: High speed telegraphy test in International Morse Code at 20 words per minute.
- (d) *Element 2(A)*: Rules, basic principles, and amateur practices essential to beginners' amateur radiotelegraphy operation using the privileges authorized to the Novice Class.
- (e) *Element 2(B)*: Rules, basic principles, and amateur practices essential to beginners' amateur radiotelephony operation using the privileges authorized to the Communicator Class.
- (f) *Element 3(A)*: Rules, intermediate level principles, and amateur practices essential to amateur radio operation using the privileges authorized to the General Class.
- (g) *Element 3(B)*: Rules, intermediate level principles, and amateur practices essential to amateur radio operation using the privileges authorized to the Technician Classes.
- (h) *Element 4(A)*: Advanced level principles and amateur practices essential to amateur radio operation using the privileges authorized to the Advanced Class.
- (i) *Element 4(B)*: Advanced level principles and amateur practices essential to amateur radio operation using the privileges authorized to the Experimenter Class.

7. Revise 97.23 to read as follows:

97.23 Examination requirements:

(a) The telegraphy test required of an applicant for an amateur radio operator license shall determine the applicant's ability to send correctly by hand using a hand key (or, if supplied by the applicant, a semi-automatic or electronic, hand operated key, other than keyboard type) and to receive correctly by ear, in plain language, messages in the International Morse Code at not less than the prescribed speed, counting 5 characters to the word, each numeral or each punctuation mark counting as 2 characters.

(b) All written examinations for an amateur radio operator license shall be completed by the applicant in legible handwriting or hand printing by means of ink or pencil. Whenever the applicant's signature is required, his normal signature shall be used. Applicants unable to comply with these requirements, because of a physical disability, may dictate their answers to the examination questions and to the receiving code test. If the examination, or any part thereof, is dictated by the applicant, the examiner shall certify the nature of the applicant's disability and the name and address of the person(s) taking and transcribing the dictation.

97.25 Examination credit.

(a) An applicant for an amateur radio operator license will be given credit for those examination elements required for any other class or operator license held when the application is filed. However, credit will not be given for examination elements 1(B), 3(A), 3(B), 4(A), and 4(B) given under the provisions of Section 97.30 for a class of operator license other than that being applied for, except for holders of Advanced(D) Class, Experimenter(D) Class, General(D) Class, and Technician(D) Class when qualifying for a license under the provisions of Section 97.27.

NOTE: Credit for examination elements will be given to applicants holding a valid operator license at the time of the adoption of this rule, in accord with the following schedule, during a period not exceeding one year following the expiration date on the current license:

- (1) *Amateur Extra Class*: All examination elements.
- (2) *Amateur Extra(C) Class*: Elements 1(A), 2(A) and 2(B). Also all other examination elements as if passed on the basis of Section 97.27.

(3) *Advanced Class*: Elements 1(A), 1(B), 2(A), 2(B), 3(A), 3(B), 4(A), and 4(B).

(4) *Advanced(C) Class*: Elements 1(A), 2(A), and 2(B). Also elements 1(B), 3(A), 3(B), 4(A), and 4(B) as if passed on the basis of Section 97.27.

(5) *General Class*: Elements 1(A), 1(B), 2(A), 2(B), 3(A), and 3(B).

(6) *Conditional Class*: Elements 1(A), 2(A), and 2(B). Also elements 1(B), 3(A), and 3(B) if passed on the basis of Section 97.28.

(7) *Conditional Class(P) Class*: Elements 1(A), 2(A), and 2(B). Also elements 1(B), 3(A), and 3(B) as if passed on the basis of Section 97.27.

(8) *Technician Class*: Elements 1(A), 2(B), 3(A) and 3(B).

(9) *Technician(C) Class*: Elements 1(A), 2(A), and 2(B). Also elements 3(A) and 3(B) as if passed on the basis of Section 97.28.

(10) *Novice Class*: Elements 1(A) and 2(A).

(b) Upon request, an applicant for an amateur radio license will be given credit for element 1(A) and 1(B) if within 5 years prior to the receipt of his application by the Commission, he held a commercial radiotelegraph operator license or permit issued by the Federal Communications Commission.

(c) Upon request, an applicant for an amateur radio operator license will be given credit for elements 1(A), 1(B), and 1(C), if he holds a valid First Class commercial radiotelegraph operator license or holds any commercial radiotelegraph operator license or permit issued by the Commission containing aircraft radiotelegraph endorsement.

(d) Applicant submitting evidence of having held the Amateur Extra First Class operator license and having held its successor license will be given credit for examination element 1(C) if he so requests. An applicant must present his proof in advance of the desired examination time to the Amateur and Citizens Division, Washington, D. C., 20554, and receive a letter of certification for presentation to the Commission Field Office where the examination will be taken. No credit for the telegraphy requirement will be given without the letter of certification.

9. Revise headnote and 97.27 to read as follows:

97.27 *Availability of operator license to physically disabled persons.*

If it is shown by physician's certificate an applicant is unable to travel to any regular Commission examination point because of a protracted physical disability, a new or renewed Extra(D) Class, Advanced(D) Class, Experimenter(D) Class, General(D) Class, or Technician(D) Class operator license may be issued on the basis of examinations successfully passed under the provisions of Section 97.30. These licenses may not be renewed without a current physician's affidavit.

10. Section 97.28 and headnote are revised to read as follows:

97.28 *Availability of operator license to persons residing at great distances from Commission examination points.*

(a) A new Advanced(C) Class, Experimenter(C) Class, General(C) Class, or Technician(C) Class license may be issued on the basis of examinations successfully passed under the provisions of Section 97.30 under one of the following conditions:

(1) If the applicant's legal residence, mailing address, and/or any station location or proposed station location are more than 175 miles actual distance from the nearest Commission examining point.

(2) If the applicant is shown by certificate of the commanding officer to be in the Armed Forces of the United States at an Army, Navy, Air Force, or Coast Guard station and, for that reason, to be unable to appear for examination at a Commission examination point.

(3) If the applicant demonstrates by sufficient evidence that he is unable to appear at a Commission examination point because his current temporary residence, for the 12 coming months is outside the continental limits of the United States, its territories or possessions.

(b) Operator licenses obtained under the provisions of these rules are not renewable.

11. Section 97.29 and headnote are revised to read as follows:

97.29 *Manner of conducting Commission supervised examinations.*

(a) Except as provided by Sections 97.27 and 97.28, examination elements 1(B), 1(C), 3(A), 3(B), 4(A), and 4(B) may only be administered by an authorized Commission employee or representative at locations and at times specified by the Commission.

(b) Examination element 4(A) may only be administered to a person having successfully passed element 3(A).

(c) Examination element 4(B) may only be administered to a person having successfully passed element 3(B).

(d) Examination element 3(A) may only be administered to a person having successfully passed element 2(A).

(e) Examination element 3(B) may only be administered to a person having successfully passed examination elements 2(B).

12. Section 97.30 is added new to read as follows:

97.30 *Manner of conducting mail examinations.*

(a) Unless otherwise prescribed by the Commission, examination elements 1(A), 2(A), 2(B), and any elements administered under the provisions of Sections 97.27 and 97.28 will be conducted and supervised by two proxy volunteer examiners proposed by the applicant and approved by the Commission. The volunteer examiners shall be at least 21 years of age, shall be unrelated to the applicant, and at least one shall hold the proper class of license to administer examinations in accordance with the following schedule:

(1) Extra Class: All examination elements.

(2) Advanced Class: Examination elements 1(A), 1(B), 2(A), and 3(A).

(3) Experimenter Class: Examination elements 1(A), 2(B), and 3(B).

(b) Written examinations shall be obtained, administered, and submitted in accordance with the following procedure:

(1) Within 10 days after successfully passing any required telegraphy examination element, an applicant shall submit an application (FCC Form 610), together with any filing fee prescribed, to the Commission's Office in Gettysburg, Pennsylvania 17325. The application shall include a written request from the volunteer examiners for the appropriate examination papers. The examiners' written request shall include (1) the name and mailing address of the volunteer examiners, (2) the name of the applicant, (3) a statement by the volunteer examiners that the applicant has passed the telegraphy examination element for the class of operator license, if required, under their supervision within the 10 days prior to the submission of the request, and (4) the volunteer examiners' signatures. Examination papers will be forwarded to one of the volunteer examiners.

NOTE: When the applicant is entitled to credit for any telegraphy examination element under the provisions of Section 97.25, an application may be submitted without regard to the 10 day limitation. The examiner's request should then state that a telegraphy examination was not administered for that reason. The applicant should furnish details as to the class, number, and expiration date of any license involved.

(2) The proxy volunteer examiners shall be responsible for the proper conduct and necessary supervisions of the examination. Instruction of the examination shall be in accordance with the instructions included with the examination papers.

(3) The examination papers, either completed, or unopened in the event the examination if not administered for whatever reason, shall be returned by the volunteer examiner to the Commission's Office At Gettysburg, Pennsylvania, no later than 30 days after the date the papers are mailed by the Commission (the date of mailing is normally stamped by the Commission on the outside of the examination envelope).

13. Section 97.33 is amended to read as follows:

97.33 Eligibility for re-examination.

An applicant who fails an examination for an amateur radio operator license may not take another examination for the same or higher class license in the same series within 30 days.

14. Section 97.35 and headnote are revised to read as follows:

97.35 Additional requirements for licensees holding licenses on the basis of mail examinations.

(a) A licensee holding an amateur radio operator license obtained by a mail examination administered by proxy volunteer examiners may be required to appear for a Commission supervised examination at a location designated by the Commission. If the licensee fails to do appear for this examination when directed to do so, or fails to pass such examination, the amateur radio license(s) involved shall be subject to cancellation. When a license is cancelled under this provision, a new license will not be issued for the same class of operator license as that cancelled.

(b) A holder of an amateur radio operator license obtained on the basis of a mail examination under the provisions of Section 97.27 shall make application for re-examination within one-year upon becoming able to travel to any Commission examination point.

(c) A holder of an amateur radio operator license obtained on the basis of mail examination under the provisions of Section 97.28 shall apply for re-examination within one-year of when the licensee changes his legal residence, or mailing address, and/or any station or proposed station location within 175 miles actual distance to the nearest Commission examination point, or when a new examination point is established within 175 actual miles distance to the licensee's legal residence, mailing address, or station location.

15. Section 97.38 is added new to read as follows:

97.38 Types of station licenses and eligibility.

(a) The following types of station licenses are available to properly licensed amateur radio operators.

Type of station

Series A Primary station.	Extra Class, any Series A Class operator
Series A Secondary station.	-do-
Series B Primary station.	Extra Class, any Series B Class operator
Series B Secondary station.	-do-
Series A Club station.	Extra Class, Advanced Class operator
Series B Club station.	Extra Class, Experimenter Class operator
Repeater station, Control station, Auxiliary Link station, Space station.	Extra Class, Experimenter Class operator
Military Recreation station.	Individual, whether or not a licensed amateur radio operator, who is in charge of a proposed Military Recreation Station

16. Section 97.67(A) & (B) are amended and par (d) added to read as follows:

97.67 Maximum authorized power.

(a) Within all other limitations specified herein, amateur radio stations shall use the minimum amount of transmitter power necessary to carry out the desired communications.

(b) Except for power limitations set forth in Section 97.7 and Section 97.61, the maximum transmitter output power shall not exceed 2000 watts peak envelope power.

(d) Any transmitter capable of exceeding the power limitations specified herein shall not be operated in the Amateur Radio Service unless there are incorporated adequate measures to insure the limitations will not be exceeded.

¹This is one proposal under consideration. The Commission is also considering alternatives such as PEP input, average power input, ratios of peak to average power output and limitations on dissipation ratings of final power amplifier devices or a combination of these. Specific comments on the practicality of these proposals, alternate proposals and the practicality of attendant power measuring techniques by amateur stations are required.

We request comments on the need for rules limiting the use of techniques which increase the average power in A3 single sideband suppressed carrier transmissions, without increasing the peak envelope power. The comments should discuss the various techniques utilized for the purpose in the Amateur Radio Service, the engineering standards that must be observed for good amateur practice when using these techniques, the nature of any unnecessary interference that can be caused by the improper use of these techniques, and the capabilities of amateurs to make measurements necessary to proper usage.

12/24/74

FIGURE 1. PRESENT STRUCTURE OF OPERATOR LICENSE CLASSES' EXAMINATION ELEMENTS AND FREQUENCY PRIVILEGES.

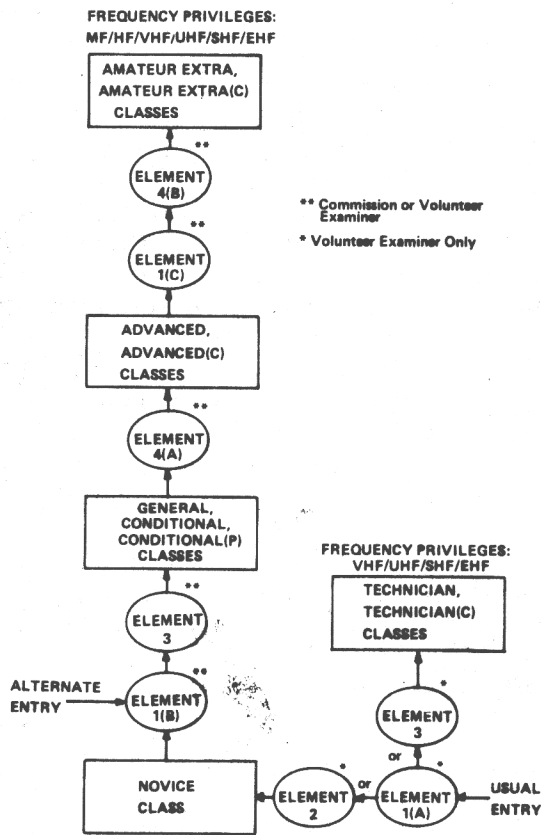


TABLE 1. Eligibility of currently licensed amateur radio operators for proposed new operator licenses, without further examination.

	CURRENT OPERATOR CLASSES									
	Amateur Extra Class	Amateur Extra (C) Class	Advanced Class	Advanced (C) Class	General Class	Conditional Class	Conditional (P) Class	Technician Class	Technician (C) Class	Novice Class
PROPOSED OPERATOR CLASSES										
Extra Class										
Extra (D) Class										
SERIES B										
Experimenter Class										
Experimenter (C) Class										
Experimenter(D) Class										
Technician Class										
Technician(C) Class										
Technician (D) Class										
Communicator Class										
SERIES A										
Advanced Class										
Advanced (C) Class										
Advanced (D) Class										
General Class										
General (C) Class										
General (D) Class										
Novice Class										

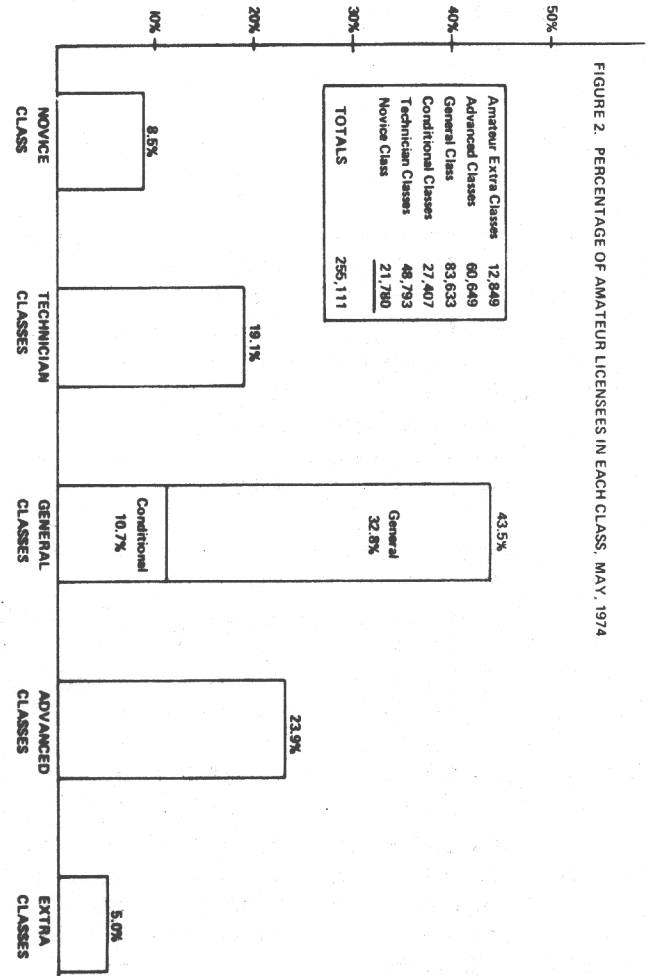


FIGURE 2. PERCENTAGE OF AMATEUR LICENSEES IN EACH CLASS, MAY, 1974

FIGURE 3. PROPOSED REVISED STRUCTURE OF OPERATOR LICENSE CLASSES AND EXAMINATION ELEMENTS

