

The areas described aggregate approximately 32,786.95 acres in Carbon and Sweetwater Counties, of which 805.03 acres described as follows are privately owned lands:

- T. 17 N., R. 82 W.,
Sec. 7, lot 1 and NE $\frac{1}{4}$ NW $\frac{1}{4}$;
Sec. 18, SE $\frac{1}{4}$ SW $\frac{1}{4}$.
T. 17 N., R. 83 W.,
Sec. 7, lots 1 to 4, incl., E $\frac{1}{2}$ W $\frac{1}{2}$.
T. 20 N., R. 83 W.,
Sec. 22, W $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$, S $\frac{1}{2}$ SE $\frac{1}{4}$.
T. 17 N., R. 84 W.,
Sec. 22, NW $\frac{1}{4}$ NW $\frac{1}{4}$.

2. The revocation made by paragraph 1 of this order, so far as it affects the public lands described as sec. 6, T. 19 N., R. 95 W., and sec. 2, T. 19 N., R. 96 W., is in furtherance of an exchange under section 8 of the Act of June 28, 1934, as amended, 43 U.S.C. sec. 315g (1970), by which the offered lands will benefit a Federal land program. Accordingly, these lands are hereby classified, pursuant to section 7 of the Act of June 28, 1934, as amended, 43 U.S.C. sec. 315f (1970), as suitable for such exchange. These lands, therefore, will not be subject to other use or disposition under the public land laws in the absence of a modification or revocation of such classification (43 CFR 2440.4).

3. At 10 a.m. on October 13, 1972, the remaining unappropriated and unclassified public lands described in paragraph 1, shall be open to operation of the public land laws generally, subject to valid existing rights, the provisions of existing withdrawals, and the requirements of applicable law. All valid applications received at or prior to 10 a.m. on October 13, 1972, shall be considered as simultaneously filed at that time. Those received thereafter shall be considered in the order of filing. These lands have been and continue to be open to location and entry under the United States mining laws, and to the filing of applications and offers under the mineral leasing laws.

Inquiries concerning the lands should be addressed to the Chief, Branch of Lands and Minerals Operations, Bureau of Land Management, Cheyenne, Wyo. 82001.

HARRISON LOESCH,
Assistant Secretary of the Interior.

SEPTEMBER 7, 1972.

[FR Doc. 72-15508 Filed 9-12-72; 8:46 am]

Title 47—TELECOMMUNICATION

Chapter I—Federal Communications Commission

[Dockets Nos. 19161, 19317; FCC 72-776]

PART 73—RADIO BROADCAST SERVICES

FM Broadcast Stations, Table of Assignments for Certain Cities

Fourth report and order (Docket No. 19161); Second report and order (Docket No. 19317).

In the matter of amendment of § 73.202, Table of Assignments, FM Broadcast Stations. (West Allis, Berlin, Hartford, Neenah-Menasha, Shawano, Watertown, and Waupun, Wis., and Escanaba, Mich.; Coal City, Dwight, or Marseilles, Ill.; St. Charles and St. Louis, Mo.; Muncie, Ind.; and Celina, Fostoria, and Lima, Ohio; Anamosa and Iowa City, Iowa; Terrell and Corsicana, Tex.; Sullivan, Bedford, and Paoli, Ind.; Orangeburg, S.C.; Danville, Ind.; Decatur or Paris, Ill.; Manning and Kingstree, S.C.). Docket No. 19161; RM-1476, RM-1489, RM-1523, RM-1524, RM-1528, RM-1540, RM-1552, RM-1554, RM-1559, RM-1561, RM-1563, RM-1566, RM-1571, RM-1626, and RM-1660.

Amendment of § 73.202, Table of Assignments, FM Broadcast Stations. (Decatur and Rantoul, Ill.; Santa Rosa, Calif.; Duluth and Cloquet, Minn.; Lady-smith, Wis.; Enfield, Conn.; Greenfield and Northampton, Mass.; Willimantic, Conn.). Docket No. 19317; RM-1686, RM-1693, RM-1696, RM-1697, and RM-1866.

1. The Commission has under further consideration its notices of proposed rule making in Dockets Nos. 19161 and 19317 inviting comments on a number of proposals for changing the FM Table of Assignments in response to requests of petitioners.¹ This decision concerns only the proposals respecting the above-entitled RM-1566 (Decatur or Paris, Ill.) in Docket No. 19161; RM-1686 (Decatur and Rantoul, Ill.) and RM-1696 (Enfield, Conn., Greenfield and Northampton, Mass.), in Docket No. 19317; and the proposal in RM-1866 (Willimantic, Conn.), accepted for consideration as a counter-proposal to the Enfield proposal in Docket No. 19317. In prior decisions, we have disposed of the other proposals in Dockets Nos. 19161² and 19317,³ with only those affected by the noted petitions for reconsideration requiring further consideration. We first deal with the related Illinois FM assignment proposals.

2. Decatur-Paris, Ill. (RM-1566, Docket No. 19161; RM-1686, Docket No. 19317.) In Docket No. 19161, the notice invited comments on alternative proposals to assign Class B channel 253 in place of Channel 252A at Paris or to Decatur or another community in the general area. The Paris Channel 253 proposal was advanced in RM-1566 by Paris

Broadcasting Corp., the Paris Channel 252A (WPRS-FM) licensee, which is also licensee of a daytime AM station (WPRS) at Paris. These are the only radio stations at Paris (1970 population, 9,971) and in Edgar County (1970 population, 21,591), of which Paris is the seat and largest city. The Paris 252A assignment is the only FM assignment in Edgar County.

3. Paris Broadcasting seeks a Class B assignment in place of the Paris Class A assignment, and modification of its WPRS-FM license accordingly, so that it can better meet the need for local nighttime radio service in the area and provide an improved and expanded FM service to a significantly greater area. Its showing also reveals that, in the increase area, an area of some 20 square miles containing 655 persons would receive a first FM signal of 1 mv/m strength and an area of some 207 square miles containing 7,555 persons would receive a second such FM signal. However, the preclusion study submitted indicated that the proposed Paris Channel 253 assignment would preclude use of Channel 253 or Channel 254 for a second FM assignment at Decatur, a city with a population of over 90,000, or for assignment in other places of substantial size in this general area of Illinois. Because of this, we proposed—as an alternative—the assignment of Channel 253 to Decatur or other communities in the general area that commenting parties might suggest.

4. In Docket No. 19317, instituted subsequent to Docket No. 19161, the notice invited comments also on a proposal of Prairieland Broadcasters (Prairieland), the licensee of a daytime-only AM station (WDZ) at Decatur, in RM-1686 to assign Class B Channel 236 at Decatur as a possible alternative to the Channel 253 assignment proposed for Decatur in Docket No. 19161. As part of this proposal, we also proposed to substitute Channel 224A for Channel 237A at Rantoul, Ill., now occupied by Station WRTL-FM, which has been on the air since March 1, 1972. While Prairieland initially proposed that Channel 265A be substituted for the then unoccupied Rantoul Channel 237A assignment in order to permit Channel 236 use at a transmitter site as close as 3 miles from the center of Decatur, at the suggestion of a former applicant for the Rantoul assignment, and with the approval of Prairieland, Channel 224A was instead proposed as the Rantoul replacement to accomplish this objective.⁴

5. As the notice pointed out, the preclusion study indicated that the proposed Channel 236 assignment at Decatur would preclude the use of Channels 236 and 237A only in a limited area of Illinois

¹ See notice of proposed rule making, released March 1, 1971 (36 F.R. 4064) in Docket No. 19161. Also see notice of proposed rule making, released September 13, 1971 (36 F.R. 18665) in Docket No. 19317.

² In Docket No. 19161, see First Report and Order, released November 1, 1971 (32 FCC 2d 191); Second Report and Order, released January 7, 1972 (32 FCC 2d 839); and Third Report and Order, released May 12, 1972 (34 FCC 2d 858). Petitions for reconsideration of the Second Report and Order in re RM-1525 (Muncie, Ind., and Celina, Fostoria, and Lima, Ohio) and of the Third Report and Order in re RM-1540 (Anamosa and Iowa City, Iowa) await disposition.

³ In Docket No. 19317, see First Report and Order, released May 19, 1972 (34 FCC 2d 942).

⁴ William R. Brown and Donald R. Williams, doing business as Regional Radio Service (Regional Radio), the successful applicant for the Rantoul Channel 237A assignment (BPH-7243, granted May 10, 1971, Docket No. 19112, issued May 81, 1971) did not file pleadings or comments in regard to the Decatur-Rantoul proposals prior to our institution of rule making in the matter.

where the largest communities are Taylorville (1970 population, 10,644), which already has a Class A assignment and station, and Virden (1970 population, 3,504) which is without an FM assignment or an aural broadcast outlet. It also appeared that the proposed Rantoul Channel 224A assignment would not affect other assignments.

6. Prairieland seeks a Class B assignment at Decatur in order to make a second such assignment available there for which it can apply and provide the Decatur area with a choice of local FM service, as well as an additional aural nighttime service from a different source. At present, only Class B Channel 275, occupied by Station WSOY-FM, is assigned at Decatur (1970 population, 90,397) and in Macon County (1970 population, 123,010), of which Decatur is the seat. Station WSOY-FM's licensee, Illinois Broadcasting Co., is also licensee of Station WSOY, the only unlimited-time AM station at Decatur and in Macon County.

7. In Docket No. 19161, comments supporting the proposal to substitute Channel 253 for Channel 252A at Paris were filed by its proponent, Paris Broadcasting Corp. Opposing comments were filed by Prairieland which requested Channel 253 for a Decatur assignment. In Docket No. 19317 Prairieland also filed comments in support of its Decatur Channel 236 proposal and the corollary Rantoul Channel 224A proposal. Comments opposing the Decatur Channel 236 and Rantoul 224A replacement proposals were filed by the Rantoul Channel 237A permittee, Regional Radio. It urged, instead, that Decatur should be preferred to Paris for a Class B assignment and that the alternative Decatur Channel 253 proposal in Docket No. 19161, which would not disturb the assignment status quo at Rantoul and which would permit a first FM assignment (Channel 237A) at Virden, Ill., merited adoption. It also proposed Channel 237A for a first FM assignment at Virden.

8. We have further considered these Channel 253 (Paris-Decatur) and Channel 236 (Decatur) assignment proposals in light of the comments submitted in these proceedings. It is our view that a Class B FM assignment is warranted at both Decatur and Paris and should be provided by assigning Channel 253 at Paris and Channel 236 at Decatur without disturbing the now occupied Rantoul Channel 237A assignment, as originally proposed.

9. In the case of Decatur, it is of a size to qualify for a second Class B assignment under our FM assignment policies, and we believe that the Decatur petitioner has satisfactorily shown that a second Class B assignment at Decatur would serve a need for an additional local FM service and for another source for local nighttime aural programming. While we do not normally assign wide-coverage Class B channels to a city the size of Paris, we also think that a Class B assignment at Paris would have public interest value over the occupied Class A assignment there since it would enable

the only local FM station at Paris and in Edgar County, and the only outlet in the county for local nighttime radio service, to provide an improved and expanded local service in this area and which would, in addition, serve areas southwest of Paris which are now without a first or second full-time FM service. We therefore desire, if possible to provide Paris, as well as Decatur, with a Class B assignment. The Decatur Channel 236 proposal and the Paris Channel 253 proposal are, in our view, technically and otherwise feasible for accomplishing this objective without disturbing any other assignment or station or precluding future availability of either channel to any community of fair size not having an FM assignment.

10. While either proposed Channel 253 or Channel 236 could be assigned at Decatur, only Channel 253 could be assigned at Paris. We therefore believe that the Decatur Channel 236 proposal is to be preferred since it will enable us to provide Paris with a Class B assignment also. The fact that the Decatur Channel 253 proposal would also permit a first FM assignment (Channel 237A) at Virden, is not, we feel, an overriding reason for adopting that proposal and depriving Paris of a Class B assignment since there appears no evidence of any interest in establishing an FM outlet in that small community or of any likelihood that an FM assignment at Virden would ever be used. We also consider a Decatur Channel 236 assignment feasible even though, in order to meet separation requirements, a Decatur Channel 236 station would be required to operate from a site 16 miles from the Decatur reference point to meet the required 65-mile separation from the site for Regional Radio's new Channel 237A station at Rantoul, which is but 49 miles from the city reference point for Decatur. Considering the relatively flat terrain in the Decatur area and that Channel 236 is a Class B channel, intended for wide-area coverage, no difficulty should be encountered in finding a suitable site at the distance required to meet spacing requirements for a Channel 236 operation to serve Decatur satisfactorily. We therefore, have also decided, in light of the objection raised by the Rantoul 237A permittee to any change in the Rantoul 237A assignment, that there is not sufficient justification for changing it, as was proposed at Prairieland's request, in assigning Channel 236 to Decatur.

11. Enfield-Willimantic, Conn. (RM-1696, Docket No. 19317; RM-1866). These requests involve conflicting proposals for the assignment of Channel 252A for a first FM assignment at either Enfield or Willimantic, Conn., communities located approximately 25 miles from each other. The Enfield proposal, upon which we invited comments in Docket No. 19317, in response to a request of KND Corp. (KND), licensee of Station WKND(AM) at Windsor, Conn., in RM-1696, would also require changing the FM assignment occupied by Station WHAI-FM at Greenfield, Mass., from Channel 252A to Chan-

nel 257A and the FM assignment occupied by Station WHMP-FM at Northampton, Mass., from Channel 257A to Channel 265A. The Willimantic proposal was advanced by The Willie Broadcasting Co. (Willie Broadcasting), licensee of Station WILI(AM) at Willimantic, in a petition for rule making (RM-1866), filed August 18, 1971, and supplemented on October 19, 1971, with an additional showing, containing a request that its Channel 252A proposal be accepted and considered as a counterproposal to the Enfield Channel 252A proposal in Docket No. 19317.⁵

12. In comments directed to the Enfield proposal, the Greenfield Channel 252A licensee, Haigis Broadcasting Corp., advised that it has no objection to the proposed change in its Channel 252A authorization if it is reimbursed for the reasonable cost of the changeover by the prospective user of Channel 252A at Enfield. The Northampton Channel 257A licensee, Pioneer Valley Broadcasting, in comments directed to the Enfield proposal in the original KND petition, also previously advised that it would have no objection to the proposed change in its Channel 257A authorization on the same condition. KND also filed comments supporting its Enfield proposal.

13. Enfield, with a 1970 population of 46,189, is located in Hartford County (1970 population, 816,737) in the north-central part of Connecticut abutting the Massachusetts State boundary, about 6 or 7 miles south of Springfield, Mass., and 15 miles north of Hartford. Enfield is part of the Hartford SMSA (1970 population, 663,891). While Enfield is without an FM assignment or local AM outlet, there are six occupied FM assignments in Hartford County—five at Hartford and one at New Britain. Nine AM stations are also located in Hartford County. Enfield is served by the five Hartford Class B FM stations, and also by the three Class B FM stations at Springfield.

14. Willimantic, with a 1970 population of 14,402, is the largest city and seat of Windham County (1970 population 84,515) which is located east of Hartford County in the northeastern corner of the State. No local FM service is available at Willimantic or in Windham County, and no FM channels are assigned in the county. The nearest FM stations are at Hartford, about 25 miles west of Willimantic. Local AM service in the county is supplied by two stations, the Willimantic petitioner's fulltime AM station at Willimantic (WILI) and a daytime-only AM station at Putnam. If an FM assignment is provided at Willimantic, Willie Broadcasting states that it will make immediate application for its use for a first local FM service at Willimantic and in Windham County.

15. Unlike the Enfield Channel 252A proposal, the Willimantic Channel 252A proposal would not require any change in existing assignments or require any

⁵ See Public Notices, Report No. 787, released October 22, 1971, and RM-1866 assigned, Report No. 788, released October 29, 1971.

existing FM station to change the channel upon which it operates. Channel 252A would meet all mileage separation requirements for assignment and use at Willimantic if used at a transmitter site at least 1 mile south of the community to meet the required 65-mile spacing from the Greenfield, Mass. Channel 252A station (WHAI-FM). The preclusion study for the Willimantic proposal also shows that a Willimantic Channel 252A assignment would not foreclose future assignments on any of the seven channels involved.

16. We are of the opinion that, as between these Channel 252A assignment proposals for Enfield and Willimantic, the Willimantic proposal has the greater public interest value and is more worthy of adoption since it is technically feasible and will provide opportunity for a first local FM service not only in Willimantic but in Windham County, where no FM channels have been assigned and only one full-time AM station at Willimantic is operating, as well. While Enfield is without a local FM or AM service, it is in a county which has been provided with six FM assignments, all occupied, and with nine AM stations. Enfield itself receives eight FM services and numerous AM services from stations at Hartford and from nearby Springfield, Mass. We therefore believe the public interest is best served by assigning Channel 252A for a first FM assignment at Willimantic.

17. In view of the foregoing, and pursuant to the authority contained in sections 4(i), 303 (g) and (r), and 307(b) of the Communications Act of 1934, as amended, *It is ordered*, That effective October 17, 1972, the FM Table of Assignments, § 73.202(b) of the rules, is amended to read as follows for the cities listed below:

City	Channel No.
Decatur, Ill.	236, 275
Paris, Ill.	253
Willimantic, Conn.	252A

18. *It is further ordered*, That the petition of KND Corp. for assignment of channel 252A at Enfield, Conn., is denied.

19. *It is further ordered*, That, effective October 17, 1972, and pursuant to section 316(a) of the Communications Act of 1934, as amended, the outstanding license held by Paris Broadcasting Corp. for Station WPRS-FM, Paris, Ill., is modified to specify operation on Channel 253 in lieu of Channel 252A, subject to the following conditions:

(a) The licensee shall inform the Commission in writing by no later than October 17, 1972, of its acceptance of this modification.

(b) The licensee shall submit to the Commission by November 7, 1972, all necessary information complying with the applicable technical rules for modification of authorization to cover the operation of Station WPRS-FM on Channel 253 at Paris, Ill.

(c) The licensee may continue to operate on Channel 252A under its outstanding authorization until it submits an application for an FM broadcast station license with proof of performance

measurement data to demonstrate compliance with technical performance requirements of the rules. The licensee shall not operate on Channel 253 without prior authorization from the Commission.

20. *It is further ordered*, That the proceeding in Docket No. 19161 is terminated insofar as RM-1566 is concerned and that, having disposed herein of RM-1686, RM-1696, and RM-1866 in Docket No. 19317, the proceeding in Docket No. 19317 is terminated.

(Secs. 4, 303, 307, 48 Stat., as amended, 1066, 1082, 1083; 47 U.S.C. 154, 303, 307)

Adopted: August 29, 1972.

Released: September 7, 1972.

FEDERAL COMMUNICATIONS
COMMISSION,¹

[SEAL] BEN F. WAPLE,
Secretary.

[FR Doc. 72-15548 Filed 9-12-72; 8:55 am]

[FCC 72-777]

PART 74—EXPERIMENTAL, AUXILIARY, AND SPECIAL BROADCAST, AND OTHER PROGRAM DISTRIBUTIONAL SERVICES

TV and FM Translator Stations; Order Regarding Unattended Operation

1. Sections 74.734(a) (4) and 74.1234(a) (4) of the rules, respectively, pertaining to unattended operation of a television broadcast translator station and an FM radio broadcast translator station, both provide that the Commission must be supplied with the name, address, and telephone number of a person or persons who may be contacted to secure prompt suspension of the operation of the station if such action should be deemed necessary by the Commission. Nowhere in the rules is guidance provided as to the meaning of "prompt." Customarily, however, this term has been construed by the Commission's staff to mean no more than 30 minutes. The failure of the rules to give licensees reasonable guidance as to what is meant by "prompt" has led to some difficulties and has resulted in delay in acting on otherwise grantable applications. In order to eliminate such delays, therefore, we are amending these rules to specify the time as 30 minutes instead of "promptly."

2. These amendments to the rules are adopted pursuant to the authority contained in sections 4 (i) and (j) and 303 (r) of the Communications Act of 1934, as amended. Since the changes are interpretative, the notice and effective date provisions of section 4 of the Administrative Procedure Act (5 U.S.C. 553) do not apply.

3. Accordingly, *It is ordered*, That, effective September 15, 1972, §§ 74.734(a) (4) and 74.1234(a) (4) of the Commission's rules and regulations are amended as set forth below.

¹ Commissioner Johnson concurring in the result; Commissioners H. Rex Lee and Reid absent; Commissioner Hooks not participating.

(Secs. 4, 303, 48 Stat., as amended, 1066, 1082; 47 U.S.C. 154, 303)

Adopted: August 29, 1972.

Released: September 1, 1972.

FEDERAL COMMUNICATIONS
COMMISSION,¹

[SEAL] BEN F. WAPLE,
Secretary.

Part 74 of Chapter I of Title 47 of the Code of Federal Regulations is amended as follows:

1. In § 74.734, paragraph (a), subparagraph (4) is amended to read as follows:

§ 74.734 Unattended operation.

(a) * * *

(4) The Commission shall be supplied with the name, address, and telephone number of a person or persons who may be contacted to secure suspension of operation of the translator within thirty (30) minutes should such action be deemed necessary by the Commission. Such information shall be kept current by the licensee.

2. In § 74.1234, paragraph (a), subparagraph (4) is amended to read as follows:

§ 74.1234 Unattended operation.

(a) * * *

(4) The Commission shall be supplied with the name, address, and telephone number of a person or persons who may be contacted to secure suspension of operation of the translator within thirty (30) minutes should such action be deemed necessary by the Commission. Such information shall be kept current by the licensee.

[FR Doc. 72-15549 Filed 9-12-72; 8:55 am]

[FCC 72-757; Docket No. 18803]

PART 97—AMATEUR RADIO SERVICE

Licensing and Operation of Repeater Stations

In the matter of amendment of Part 97 of the Commission's rules concerning the licensing and operation of repeater stations in the amateur radio service; Docket No. 18803; RM-388, RM-1087, RM-1209, RM-1542, RM-1725.

1. The Commission adopted a notice of proposed rule making in the above entitled matter on February 26, 1970, which was published in the FEDERAL REGISTER on March 5, 1970 (35 F.R. 4138). Interested parties were invited to file comments on or before May 15, 1970, and reply comments on or before June 1, 1970. The time for filing comments and reply comments was subsequently extended to June 15, 1970, and July 7, 1970, respectively.

2. The notice proposed to specifically provide rules for the operation of amateur stations which receive and automatically repeat the radio signals of other

¹ Commissioners H. Rex Lee and Reid absent; Commissioner Hooks not participating.

amateur stations. Although the rules have not specifically referred to amateur repeater stations, per se, the Commission has licensed hundreds of repeater stations to operate under the rules applicable to amateur radio stations in general. We are of the opinion that this activity is in keeping with the fundamental purpose of the amateur radio service expressed in the principles set forth in § 97.1 of the rules, particularly with respect to § 97.1(b) and (c):

"(b) Continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art.

"(c) Encouragement and improvement of the amateur radio service through rules which provide for advancing skills in both the communication and technical phases of the art."

The high quality of the technical content of the comments received is evidence that the basis and purposes of this Service are being served by this amateur repeater activity.

3. Both formal and informal comments were received from numerous individuals and amateur radio organizations. Since the comments received were so numerous, it is not practicable to discuss each herein. However, every comment has been given careful consideration by the Commission. Many include statements describing the value of repeater stations to the service and predict further technological developments and increasing benefits if their usage is permitted to continue unhampered by the imposition of unnecessary restrictions. Generally, they heavily favor the adoption of specific rules governing the licensing and operation of repeater stations, but not necessarily in the manner proposed in the notice.

4. The Commission finds that amateur terrestrial repeater stations are useful for increasing the reliable range of VHF and UHF¹ vehicular and hand-held mobile stations in conducting intracompany amateur radiocommunication, and for effecting emergency radiocommunication which possibly could not otherwise be conducted on the amateur bands. Again, this is in keeping with § 97.1(a) of the rules:

"(a) Recognition and enhancement of the value of amateur service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications."

Accordingly, we believe that rules to provide for the operation of repeater stations are desirable. It is apparent that repeater stations have become a significant part of the service. There is no reason to expect their growing popularity to quickly diminish, nor is there reason to anticipate the innovative skills that amateur operators have demonstrated in designing and planning repeater systems to suddenly dissipate. We would prefer to have this activity continue in an orderly fashion, in a spirit of cooperation

among amateur operators. Just as it was not possible to foresee the interest in repeater stations, it is similarly impossible to fully predict the eventual products of the amateurs' imaginative application of the electronic and radio arts. For this reason, the rules adopted herein are intended to introduce provisions into the rules which permit the flexibility needed in the service, and to provide the licensing framework for accommodating future technical and operational advancements in amateur radiocommunication. Despite our efforts to forecast future needs and provide appropriate rules, we recognize that in all probability further advancements in remote control and automatic control technology will necessitate additional amendments. We urge interested parties having information and suggestions in these areas to submit them to the Commission for consideration.

5. Beginning July 1, 1973, a separate station license will be required for every amateur repeater station regardless of when it was first licensed. Applications for new, modified or renewed repeater station licenses must meet the new requirements upon the effective date of the new rules. These stations will be identified by a call sign having the distinctive prefix WR. In order to qualify for a repeater station license, the applicant must be at least a technician class licensee and must submit certain data regarding the technical and operational provisions included in his proposed station. The requirements for this showing are intended to verify that the applicant has given careful consideration to the planning and design of his repeater station, addressing particular attention to the geographical area to be covered. We desire that the applicant for a repeater station license predict by analysis the approximate coverage area needed for intracompany amateur radio communication, using the desired mode of emission. After the repeater is licensed and in operation, the licensee should verify his assumptions of community radiocommunication requirements and his prediction of the station coverage through testing and operating experience, and make appropriate adjustments based thereon. The foregoing approach should be accomplished giving due consideration to minimizing harmful interference to other amateur radio operators in the same or nearby communities desiring to use the same frequency, or frequency bands.

6. Upon reviewing the comments, and in consideration of the increasing complexity of systems described in applications received by the Commission for remotely controlled repeater stations, we recognize the need emerging in the service for a licensing structure that facilitates combining several amateur radio stations into a radiocommunication system. It has not been uncommon to receive an application for a proposed "station" having fifty or more remote control points and a half-dozen remote receiving sites which involve a multiplicity of transmitters and frequencies. This is

clearly a complex system comprised of special purpose stations, each performing one or more functions in a network. A thorough review of this matter has been undertaken, and the resulting Commission determination is reflected in the amended rules. The review indicated the difficulty in providing operating and licensing rules for the service without taking into account the functions performed by various types of specialized amateur radio stations. Accordingly, we are adopting a structure of definitions and station privileges related to the major functions performed by such specialized stations. Under this concept, and with the one exception of repeater stations, a single station may be licensed for one or more special purpose privileges according to the functions to be performed by that station. This permits a licensee to combine several stations into a system. We feel this "building block" approach is consistent with the increasing complexity of amateur system networks, will provide the necessary flexibility, and at the same time, retain the means for the Commission to exercise its requisite obligations.

7. Every amateur radio operator is affected by the adoption of this licensing structure to some degree. For example, an amateur's license which now specifies the location of his station and indicates his operator privileges, i.e., technician, general, etc., will also include the privileges authorized for his station. As a minimum, the station privilege would be "primary station." Every operator must have a primary station. This is necessary so that every amateur will have a call sign with which he may identify his radiocommunication, if required. Normally, the primary station license will be issued for the amateur's home address. However, those amateurs not having a permanent address within the United States, its territories and possessions should furnish the address of a relative or friend who will receive and forward mail to the licensee. Every licensee will be accountable for mail sent to the address of record given for a station license. Therefore, every amateur must have a license for a primary station, and this license will also authorize his operating privileges. The license may also contain additional station privileges for the same station. Licensees other than those desiring remote control or repeater station privileges will have their licenses updated upon renewal.

8. The various kinds of additional station privileges, some of which may be combined with a primary station license, are: repeater station, control station, auxiliary link station, and secondary station. Repeater station privileges may not be combined with another station license because of their distinctive call sign assignment. A control station privilege authorizes the station to exercise control over a remotely controlled station. An auxiliary link station authorizes a station to relay a radio signal point-to-point within the same system network. Either or both may be combined with

¹Article 2, Section III of the ITU radio regulations defines VHF as Band 8, 30-300 MHz (metric waves) and UHF as Band 9, 300-3000 MHz (decimetric waves).

a primary station for the same location. A secondary station license is for a station at a different location, such as a vacation home, and is obviously a license issued in addition to the primary license. These various privileges may be added to an existing license by modification, or at renewal, upon submittal of the appropriate information.

9. The rules for remote control proposed in the notice have been relaxed in three major areas. First, the control operator may be any qualified amateur designated by the licensee. Second, provisions are adopted for any repeater station authorized to be operated by radio remote control to also be so operated from a portable or mobile station, provided all of the required monitoring and control functions can be satisfactorily performed, from either the authorized control point or from the mobile or portable control station. This will enable a licensee to make use of his own repeater station while he is operating mobile or portable. Third, since the comments frequently and persuasively mention terrain and other considerations which make necessary "multiple-hop" control links, we are deleting the proposed limit to a direct (single-hop) control link and providing for auxiliary link stations, which may be authorized for this and also for other point-to-point intermediate relay applications, such as a relay between a remote receiving site and a repeater station.

10. We have considered the advisability of adopting rules for control links based upon current amateur control link techniques, versus rules which would allow greater latitude. We find the latter approach to be more flexible and appropriate to the amateur service, but it requires a showing of the design and operational features of an applicant's proposed control system network. The applicant must submit a diagram showing the interrelationship of all of the stations and control points in the system network configuration. The station license will list the control points and the control stations authorized to operate the remotely controlled station.

11. In the past, we have permitted a very broad interpretation of the term "wire" remote control as applied to Part 97 of the rules, including the use of commercial telephone lines and command signal techniques. This has exempted stations employing relatively sophisticated and sometimes questionable approaches in the design and operation of wire remote control links, from submitting information on their proposed station with their applications. Upon the effective date of this report and order, only stations having the most elementary form of interconnection comprised of electrical conductors directly between the transmitter and the control devices, and having all of the elements of the station located on the same premises, will be considered as not constituting remote control. Applicants proposing to use any other form of remote control must submit the information required by § 97.41. Stations other than repeater

stations now authorized to be operated by wire remote control and not in compliance with the licensing requirements of the amended rules may continue to operate under their present authorization until the expiration date of their current station license.

12. Restriction of repeater operation to specific portions of the amateur bands above 50 MHz has not been adopted as proposed in the notice. Approximately one-half of the amateur VHF bands and 8 MHz of the 420 MHz band is being authorized for repeater usage. The Commission is persuaded by the comments and by observation that regional and national frequency planning and coordination by amateur radio operator themselves can result in the best spectrum utilization appropriate to the service. However, we are prepared to reverse this decision should plans and their implementation not occur within a reasonable period. To solve the problem presented by technician class privileges in only one-half of the 146-148 MHz subband authorized for repeater operation, the rules are amended to permit technician class licensees to also operate in the entire 145 to 148 MHz segment.

13. We are of the opinion that terrestrial repeater stations should be utilized only for intracommunity radiocommunication and should not be used, directly or indirectly, as a means to circumvent the rules regarding authorized amateur operator privileges for the different classes. Repeating a lower class operator's radio signal from one frequency band into another band having higher operator privilege requirements is unfair to those operators who have properly qualified for the higher requirements. For these reasons, we are persuaded to adopt the provisions of the notice prohibiting multiband, crossband, and linked repeater operation even where operator privileges would permit it. Similarly it is not in the interest of spectrum conservation to utilize crossband and multiband operation. Many comments argued against the proposed rule to prohibit linking repeaters. In weighing these arguments against the desire to conserve spectrum and to encourage the use of amateur terrestrial repeaters for intracommunity coverage, we find that a majority of situations can be accommodated with a maximum of two linked repeaters. Therefore, two repeaters may be linked together, and under certain circumstances as provided for in § 97.89(c), more than two.

14. As pointed out by a large number of respondents the changes proposed by the notice for defining the maximum authorized transmitter power for an amateur station would affect a much broader segment of the service than those pursuing an interest in repeaters. For that reason, action on this topic is postponed with the intention of making it the subject of a future rule-making proceeding as recommended in the comments submitted by the American Radio Relay League and others.

15. The proposed 600-watt input power limit on repeater transmitters is not be-

ing adopted herein as a means of regulating a reasonably balanced receive-to-transmit repeater coverage. A decision is made to incorporate into § 97.67 the provisions of section 324 of the Communications Act of 1934, as amended, to emphasize its particular applicability to amateur terrestrial repeater stations. We conclude that a repeater station which transmits a signal at many times the range over which it is capable of receiving would be in violation of the Act. In reviewing several frequency plans proposed for the VHF bands, we observe that a typical plan would allocate about 1 to 2 dozen frequency channel pairs per megahertz. With limited channels available, the possibility of interference between repeater stations in adjacent communities desiring to use the same frequencies must be considered. For this reason, limits are established for effective radiated power from a repeater station antenna, based upon the power normally required for reception by a typical vehicular mobile station over a nominal community coverage area. A major consideration in establishing these limits is the encouragement of the practice of achieving the desired coverage through the use of a low power transmitter in conjunction with an antenna located at an optimum height above average terrain. The operation of a control station or an auxiliary link station which does not use directional antennas in conjunction with low transmitter power to minimize the possibility of harmful interference is not considered good amateur practice, and will be carefully evaluated by the Commission if proposed.

16. As stated in the notice, section 310(b) of the Communications Act requires, in effect, that the licensee of a repeater station maintain supervision and control of both the technical and operational performance of his station. Although several of the comments addressed this topic, as do RM-1542 and RM-1725 filed by Mr. Ken W. Sessions, the Commission is not ready to make a determination of rules for automatically controlled stations in the service. We do not consider access to a repeater station controlled by the users via coded signals alone on the receiving frequency to be active supervisory control by the control operator. Such coded signals are permissible for secondary control but are not required.

17. Comments were received in response to the additions to § 97.87 proposed in the notice, correctly noting that the implications extend beyond that of properly identifying a repeater station. All stations would be affected. However, the proposal reflected the policy position then held by the Commission, and the comments prompt a review of the matter. The amended section is a means to accomplish two partially conflicting purposes: Rapid identification of a station causing interference to another service, and identification of the operator in order to determine his class of license for verification of his privilege to operate within a restricted subband. Under the amended rules, a visiting operator must

use the call sign of the station he is operating. Should his class of operator privilege exceed that of the station licensee, and should he desire to operate the section within the subbands available to him but not to the station licensee, he must identify with both the station call sign and his own. Provision for automatic identification of a repeater station by telephony as well as telegraphy is adopted. The requirement for repeater identification is designed to provide assurance that a short single transmission or a short exchange of transmissions will include at least one repeater station call sign transmission.

18. Received comments highly favor simplified logging. The section has been restructured and requires only a minimum of information to be recorded in written form. The proposed requirement for recording all installation, service, or maintenance work in the station log is deleted. Although the use of such a routine is encouraged, we find that since the station licensee is responsible for the technical performance of the station, the procedure to be employed to meet this obligation is a matter of personal choice.

19. A new requirement is added for the identification of the antenna and/or transmission line associated with a remotely controlled transmitter in order to facilitate contacting the station licensee should the need arise—a process which has been time consuming in some instances where the radiating antenna of a station in violation has been identified by radio location techniques. To minimize the prospect of interference to radio communication already in progress on a given frequency, the rules to require continuous monitoring of a remotely controlled transmitter are expanded to require continuous monitoring of the frequencies while in operation, which is good operating practice. Frequencies above 225 MHz used for remotely controlling a transmitter are exempted from the continuous monitoring requirement since the interference potential with UHF is much less than with VHF.

20. Section 97.89 has been reorganized editorially and the invitation to incorporate into the text a reference to Appendix 2 is taken. Numerous comments were concerned with the omission in the notice of provisions for various test, control, and experimental transmissions. The amended rule includes these provisions.

21. The section containing definitions, § 97.3, has been expanded to include those terms frequently used in the amendments. They are defined in order to minimize possible ambiguities in the statement of the rules.

22. The rules adopted herein do not proscribe amateur radio stations, including repeaters, from being automatically interconnected to a telephone exchange system. Amateur licensees should be aware that rules governing that type of facility will be considered for other of the Commission's radio services in a separate proceeding. It has been brought to the Commission's attention that numerous violations of Subpart E of Part 97 of the rules have taken place through

the use of such interconnection, which facilitates communication from moving vehicles. Therefore, it may be necessary at some future date to examine in detail the current usage of "autopatch" facilities; and possibly restrict the use of such devices in the amateur radio service. Pending the adoption of any such regulations, amateurs are warned that usage of such interconnecting devices must be limited to amateur radio communication and may not be used for any type of business communication.

23. These amendments shall become effective upon the date stated in paragraph 25. Existing remotely controlled stations may continue to operate under their current authorizations until midnight local time June 30, 1973, or until the expiration date of their license, whichever occurs first. All new and renewed stations must comply with the rules as amended. Applications for all stations will continue to be filed on Forms 610 and 610-B, as appropriate. Parties desiring instructions for completing applications requiring additional showing may obtain same upon written request addressed to Chief, Amateur and Citizens Division, Federal Communications Commission, Washington, D.C. 20554.

24. We find the attached amendments to the rules are necessary and desirable for the execution of the Commission's duties. Authority for adoption of these amendments is contained in sections 4(i) and 303 of the Communications Act of 1934 as amended.

25. Accordingly, it is ordered, That effective October 17, 1972, part 97 of the Commission's rules is amended as set forth below appendix. It is further ordered, That in addition to RM-388, RM-1087, and RM-1209, the pending petitions of Mr. Ken W. Sessions, Jr., RM-1542, filed December 8, 1969, and RM-1725, filed December 7, 1970, have been fully considered and, to the extent that they are at variance with the rule changes adopted herein, they are denied.

26. It is further ordered, That this proceeding is terminated.

(Secs. 4, 303, 48 Stat., as amended, 1066, 1082; 47 U.S.C. 154, 303)

Adopted: August 29, 1972.

Released: September 8, 1972.

FEDERAL COMMUNICATIONS

COMMISSION,²

[SEAL] BEN F. WAPLE,

Secretary.

Part 97 of the Commission's rules is amended as follows:

1. Section 97.3 is revised to read as follows:

§ 97.3 Definitions.

The following definitions are used in this part:

(a) *Amateur radio service.* A radio communication service of self-training,

² Commissioner Johnson concurring; Commissioner Hooks not participating; Commissioners Lee and Reid absent.

intercommunication, and technical investigation carried on by amateur radio operators.

(b) *Amateur radio communication.* Noncommercial radio communication by or among amateur radio stations solely with a personal aim and without pecuniary or business interest.

(c) *Amateur radio operator.* A person interested in radio technique solely with a personal aim and without pecuniary interest, holding a valid Federal Communications Commission license to operate amateur radio stations.

(d) *Amateur radio license.* The instrument of authorization issued by the Federal Communications Commission comprised of a station license, and in the case of the primary station, also incorporating an operator license.

Operator license. The instrument of operator authorization including the class of operator privileges.

Station license. The instrument of authorization for a radio station in the amateur radio service.

(e) *Amateur radio station.* A station licensed in the amateur radio service embracing necessary apparatus at a particular location used for amateur radio communication.

(f) *Primary station.* The principal amateur radio station at a specific land location shown on the station license.

(g) *Military recreation station.* An amateur radio station licensed to the person in charge of a station at a land location provided for the recreational use of amateur radio operators, under military auspices of the Armed Forces of the United States.

(h) *Club station.* A separate amateur radio station for use by the members of a bona fide amateur radio society and licensed to an amateur radio operator acting as the station trustee for the society.

(i) *Additional station.* Any amateur radio station licensed to an amateur radio operator normally for a specific land location other than the primary station, may be one or more of the following:

Secondary station. Station licensed for a land location other than the primary station location, i.e., for use at a subordinate location such as an office, vacation home, etc.

Control station. Station licensed to conduct remote control of another amateur radio station.

Auxiliary link station. Station, other than a repeater station, at a specific land location licensed only for the purpose of automatically relaying radio signals from that location to another specific land location.

Repeater station. Station licensed to automatically retransmit the radio signals of other amateur radio stations for the purpose of extending their intra-community radio communication range.

(j) *Space radio station.* An amateur radio station located on an object which is beyond, is intended to go beyond, or has been beyond the major portion of the earth's atmosphere. (Regulations governing this type of station have not yet been

adopted and all applications will be considered on an individual basis.)

(k) *Terrestrial location.* Any point within the major portion of the earth's atmosphere, including aeronautical, land, and maritime locations.

(l) *Space location.* [Reserved]

(m) *Amateur radio operation.* Amateur radio communication conducted by an amateur radio operator from an amateur radio station. May include one or more of the following:

Fixed operation. Radio communication conducted from the specific geographical land location shown on the station license.

Portable operation. Radio communication conducted from a specific geographical location other than that shown on the station license.

Mobile operation. Radio communication conducted while in motion or during halts at unspecified locations.

(n) *Remote control.* Control of transmitting apparatus of an amateur radio station from a position other than one at which the transmitter is located and immediately accessible, except that direct mechanical control, or direct electrical control by wired connections, of an amateur radio transmitter from a point located on board any aircraft, vessel, vehicle, or on the same premises on which the transmitter is located, shall not be considered remote control within the meaning of this definition.

(o) *Control link.* Apparatus for effecting remote control between a control point and a remotely controlled station.

(p) *Control operator.* An amateur radio operator designated by the licensee of an amateur radio station to also be responsible for the emissions from that station.

(q) *Control point.* The operating position of an amateur radio station where the control operator function is performed.

(r) *Antenna structures.* Antenna structures include the radiating system, its supporting structures, and any appurtenances mounted thereon.

(s) *Antenna height above average terrain.* The height of the center of radiation of an antenna above an averaged value of the elevation above sea level for the surrounding terrain.

(t) *Transmitter.* Apparatus for converting electrical energy received from a source into radio-frequency electromagnetic energy capable of being radiated.

(u) *Effective radiated power.* The product of the radio-frequency power, expressed in watts, delivered to an antenna, and the relative gain of the antenna over that of a half-wave dipole antenna.

(v) *System network diagram.* A diagram showing each station and its relationship to the other stations in a network of stations, and to the control point(s).

2. In § 97.7, paragraph (c) is amended to read as set forth below and the note at the end of the section is deleted:

§ 97.7 Privileges of operator licenses.

(c) *Technician class.* All authorized amateur privileges on the frequencies 50.1–54.0 MHz and 145–148 MHz and in the amateur frequency bands above 220 MHz.

3. Section 97.37 is revised to read as follows:

§ 97.37 General eligibility for station license.

An amateur radio station license will be issued only to a licensed amateur radio operator, except that a military recreation station license may also be issued to an individual not licensed as an amateur radio operator (other than an alien or a representative of an alien or of a foreign government), who is in charge of a proposed military recreation station not operated by the U.S. Government but which is to be located in approved public quarters.

4. Section 97.40 is added to read as follows:

§ 97.40 Station license required.

(a) No transmitting station shall be operated in the amateur radio service without being licensed by the Federal Communications Commission.

(b) Every amateur radio operator must have a primary amateur radio station license.

(c) An amateur radio operator may be issued one or more additional station licenses, each for a different land location, except that repeater station, control station, and auxiliary link station licenses may also be issued to an amateur radio operator for land locations where another station license has been issued to the applicant.

(d) Any transmitter to be operated as part of a control link shall be licensed as a control station or as an auxiliary link station and may be combined with a primary, secondary, or club station license at the same location.

(e) A transmitter may only be operated as a repeater station under the authority of a repeater station license.

5. Section 97.41 is amended by modifying paragraph (a), adding new paragraphs (b), (c), (d), (e), and (f), then redesignating former paragraphs (b) and (c) as (g) and (h).

§ 97.41 Application for station license.

(a) Each application for a club or military recreation station license in the amateur radio service shall be made on the FCC Form 610-B. Each application for any other amateur radio station license shall be made on the FCC Form 610.

(b) Each application shall state whether the proposed station is a primary or additional station. If the latter, the application shall also state whether the proposed station is a secondary, control, auxiliary link, or repeater station.

(c) When an application(s) is made for a station having one or more associ-

ated stations, i.e., control station and/or auxiliary link station, a system network diagram shall also be submitted.

(d) Each application to license a remotely controlled amateur radio station, whether by wire or by radio control, shall be accompanied by a statement giving the address for each control point. The application shall include a functional block diagram and a technical explanation sufficient to describe the operation of the control link. Additionally, the following shall be provided:

(1) Description of the measures proposed for protection against access to the remote station by unauthorized persons.

(2) Description of the measures proposed for protection against unauthorized station operation, either through activation of the control link or otherwise.

(3) Description of the provisions for shutting down the station in case of control link malfunction.

(4) Description of the means to be provided for monitoring the transmitting frequencies.

(5) Photocopies of control station license(s) and auxiliary link station license(s), or the application(s) for same if such stations are proposed for the system network.

(e) Each application to license a control station or an auxiliary link station in the amateur radio service must be accompanied by the following information:

(1) The station transmitting band(s).

(2) Description of the means to be provided for monitoring the transmitting frequencies.

(3) The transmitter power input and justification that such power is in compliance with § 97.67(b).

(4) If remote control of an auxiliary link station is proposed, all of the information required by paragraph (d) of this section shall also be provided.

(f) Each application to license a repeater station in the amateur radio service must include the following information for each frequency band proposed for operation:

(1) Location of the station transmitting antenna, drawn upon a topographic map having the scale of 1:250,000 and a contour interval of 50 feet.¹

(2) The transmitting antenna height above average terrain.²

(3) The effective radiated power in the horizontal plane for the main lobe of the antenna pattern, calculated for maximum transmitter output power.

(4) The transmitter power output with an explanation of the basis for the measurement or computation.

(5) The loss in the transmission line between the transmitter and the antenna expressed in decibels, and method of determination of the loss.

¹Indexes and ordering information are available from U.S. Geological Survey, Washington, D.C. 20242, or Federal Center, Denver, Colo. 80225.

²See Appendix 5.

(6) The horizontal and vertical radiation patterns of the transmitting antenna as installed, with reference to true north (for horizontal pattern only), expressed as relative field strength (voltage) or in decibels, drawn upon polar coordinate graph paper, and method of determination of the patterns.

(7) The relative gain of the transmitting antenna in the horizontal plane and method of determination of the gain.

(8) If remote control of the repeater station is proposed, all of the information required by paragraph (d) of this section also shall be provided.

(9) If auxiliary link station(s) are also proposed, include photocopies of the auxiliary link station license(s), or the application(s) for such licenses.

6. Section 97.43 is revised to read as follows:

§ 97.43 Location of station.

Every amateur station must have one land location, the address of which is designated on the station license. Every amateur radio station must have at least one control point. If the control point location is not the same as the station location, authority to operate the station by remote control is required.

7. In § 97.47, the note following paragraph (c) is deleted and paragraphs (d) and (e) are added to read as follows:

§ 97.47 Renewal and/or modification of amateur station license.

(d) When an addition to the control point(s) authorized for a remotely controlled station is desired, an application for modification of the remotely controlled station license shall be submitted. Authorized control points may be deleted by letter notification to the Commission.

(e) Should the licensee desire to effect changes to his station which would significantly change the system network diagram or other technical and operational information on file with the Commission, revised showings for the proposed alterations shall be submitted for approval. An application for modification of the station license is not required.

8. In § 97.61, the introductory text of paragraph (a) is amended, and new paragraph (c) is added to read as follows:

§ 97.61 Authorized frequencies and emissions.

(a) Following are the frequency bands and associated emissions available to amateur radio stations, other than repeater stations, subject to the limitations stated in paragraph (b) of this section, §§ 97.65, 97.109, and 97.110.

(c) The following transmitting frequency bands and the associated emission authorized in paragraph (a) of this section are available for repeater stations, including both input (receiving) and output (transmitting):

Frequency Band (MHz)

52.0-54.0
146.0-148.0
222.0-225.0
442.0-450.0

any amateur frequency above 1215 MHz.

The frequency band 29.5-29.7 MHz may be authorized upon a special showing of need for repeater station operation in this band for intracommunity amateur radio communications.

9. Section 97.67 is revised by designating the existing text as paragraph (a) and by adding new paragraphs (b) and (c) to read as follows:

Antenna height above average terrain	Maximum effective radiated power for frequency bands above:			
	52 MHz	146 MHz	442 MHz	1215 MHz
Below 50 feet.....	100 watts.....	800 watts.....	Paragraphs (a) and (b).	
50 to 99 feet.....	100 watts.....	400 watts.....	do.	
100 to 499 feet.....	50 watts.....	400 watts.....	800 watts.....	Paragraphs (a) and (b).
500 to 999 feet.....	25 watts.....	200 watts.....	800 watts.....	Do.
Above 1,000 feet.....	25 watts.....	100 watts.....	400 watts.....	Do.

10. In § 97.79, the headnote and text are revised to read as follows:

§ 97.79 Control operator requirements.

(a) The licensee of an amateur station shall be responsible for its proper operation.

(b) Every station when in operation shall have a control operator at an authorized control point. The control operator may be the station licensee or another amateur radio operator designated by the licensee. Each control operator shall also be responsible for the proper operation of the station.

(c) An amateur station may only be operated in the manner and to the extent permitted by the operator privileges authorized for the class of license held by the control operator, but may exceed those of the station licensee provided proper station identification procedures are performed.

(d) The licensee of an amateur station may permit any person to participate in amateur radiocommunication from his station, provided that a control operator is present and continuously monitors the radiocommunication to ensure compliance with the rules.

11. In § 97.87, paragraph (d) is amended and redesignated as (h) and new paragraphs (d), (e), (f), and (g) are added as follows:

§ 97.87 Station identification.

(d) Under conditions when the control operator is other than the station licensee, the station identification shall be the assigned call sign for that station. However, when a station is operated within the privileges of the operator's class of license but which exceeds those of the station licensee, station identification shall be made by following the station call sign with the operator's primary station call sign (i.e. WN4XYZ/W4XX).

(e) A repeater station shall be identified by radiotelephony or by radiotelegraphy when in service at intervals not

§ 97.67 Maximum authorized power.

(b) Notwithstanding the provisions of paragraph (a) of this section, amateur stations shall use the minimum amount of transmitter power necessary to carry out the desired communications.

(c) Within the limitations of paragraphs (a) and (b) of this section, the effective radiated power of a repeater station shall not exceed that specified for the antenna height above average terrain in the following table:

to exceed 5 minutes at a level of modulation sufficient to be intelligible through the repeated transmission.

(f) A control station must be identified by its assigned station call sign unless its emissions contain the call sign identification of the remotely controlled station.

(g) An auxiliary link station must be identified by its assigned station call sign unless its emissions contain the call sign of its associated station.

(h) The identification required by paragraphs (a), (b), (c), (d), (e), (f), and (g) of this section shall be given on each frequency being utilized for transmission and shall be transmitted either by telegraphy using the international Morse code, or by telephony, using the English language. If by an automatic device only used for identification by telegraphy, the code speed shall not exceed 20 words per minute. The use of a national or internationally recognized standard phonetic alphabet as an aid for correct telephone identification is encouraged.

12. Section 97.89 is amended to read as follows:

§ 97.89 Points of communications.

(a) Amateur stations may communicate with:

(1) Other amateur stations, excepting those prohibited by Appendix 2.

(2) Stations in other services licensed by the Commission and with U.S. Government stations for civil defense purposes in accordance with Subpart F of this part, in emergencies and, on a temporary basis, for test purposes.

(3) Any station which is authorized by the Commission to communicate with amateur stations.

(b) Amateur stations may be used for transmitting signals, or communications, or energy, to receiving apparatus for the measurement of emissions, temporary observation of transmission phenomena, radio control of remote objects, and similar experimental purposes and for the purposes set forth in § 97.91.

(c) Notwithstanding the provisions of paragraph (a), no more than two repeater stations may operate in tandem, i.e., one repeating the transmissions of the other, excepting emergency operations provided for in § 97.107 or brief periods to conduct emergency preparedness tests.

(d) Control stations and auxiliary link stations may not be used to communicate with any other station than those shown in the system network diagram.

13. Section 97.95 paragraph (a)(1) is amended as follows:

§ 97.95 Operation away from the authorized permanent station location.

(a) * * *

(1) When there is no change in the authorized land station location, an amateur radio station other than a military recreation or an auxiliary link station may be operated under its station license anywhere in the United States, its territories or possessions as a portable or mobile operation, subject to § 97.61.

14. Section 97.97 is revised to read as follows:

§ 97.97 Notice of operation away from authorized location.

Whenever an amateur station is, or is likely to be, in portable operation at a single location for a period exceeding 15 days, the licensee shall give advanced written notice of such operation to the Commission's office specified in § 97.95. A new notice is required whenever there is any change in the particulars of a previous notice or whenever operation away from the authorized station continues for a period in excess of 1 year. The notice required by this section shall contain the following information:

- (a) Name of licensee.
- (b) Station call sign.
- (c) Authorized station location shown on station license.
- (d) Specific geographical location of station when in portable operation.
- (e) Dates of the beginning and end of the portable operation.
- (f) Address at which, or through which, the licensee can be readily reached.

15. Section 97.103 is revised to read as follows:

§ 97.103 Station log requirements.

An accurate legible account of station operation shall be entered in a log for each amateur radio station. The log shall bear the call sign of the station and the signature of the licensee. The following information shall be recorded as a minimum:

(a) Written entries for all stations which are required only once, or when there is a change thereto.

(1) The signature of the control operator on duty and the call sign of his primary station, if he is other than the station licensee.

(2) The location of the station. Stations in mobile operation may enter the

word "local" for amateur radiocommunication conducted within 100 statute miles of the address shown on the station license, otherwise the location of the first and last radiocommunication of each day. Stations in mobile or portable operation shall make an entry showing compliance with § 97.97, if required.

(3) The input power to the transmitter final amplifying stage.

(4) The type of emission used.

(5) The frequency or frequency sub-band used for transmitting.

(b) Other entries for all stations which may be recorded in a form other than written but which can readily be transcribed by the licensee into written form:

(1) The dates of operation.

(2) Except for repeater stations, names of persons other than the control operator using the station, either directly or indirectly, for amateur radiocommunication.

(3) A notation of third party messages sent or received, including names of all participants and a brief description of the message content.

(4) The call sign of each station actually contacted, or other purpose of the transmission, i.e., those set forth in § 97.89. Stations in mobile operation and repeater stations may omit this entry. Control stations shall enter the call sign(s) of each station in the control link. An auxiliary link station shall enter the call sign of its associated station(s).

(5) All stations shall enter the times the station is put into, or taken out of, service. Stations other than those in mobile operation, control stations, auxiliary link stations, and repeater stations shall enter the times of commencing and terminating each exchange of radiocommunication.

16. Section 97.105 is revised as follows:

§ 97.105 Retention of logs.

The station log shall be preserved for a period of at least 1 year following the last date of entry and retained in the possession of the licensee. Copies of the log, including the sections required to be transcribed by § 97.103, shall be available to the Commission for inspection.

17. Section 97.111 is redesignated as § 97.112 and a new undesignated center heading and new §§ 97.108 through 97.111 are added to read as follows:

OPERATION OF ADDITIONAL STATIONS

§ 97.108 Operation of a remotely controlled station.

(a) An amateur radio station may be operated by remote control only from an authorized control point, and only where there is compliance with the following:

(1) The license for the remotely controlled station must list the authorized remote control point(s). A photocopy of the remotely controlled station license must be posted in a conspicuous place at the authorized control point(s), and at the remotely controlled transmitter location. A copy of the system network diagram on file with the Commission

must be retained at each control point. The transmitting antenna, transmission line, or mast, as appropriate, associated with the remotely controlled transmitter must bear a durable tag marked with the station call sign, the name of the station licensee and other information so that the control operator can readily be contacted by Commission personnel.

(2) The control link equipment and the remotely controlled station must be accessible only to persons authorized by the licensee. Protection against both inadvertent and unauthorized deliberate emissions must be provided. In the event unauthorized emissions occur, the station operation must be suspended until such time as adequate protection is incorporated, or there is reasonable assurance that unauthorized emissions will not recur.

(3) A control operator designated by the licensee must be on duty at an authorized control point while the station is being remotely controlled. Immediately prior to, and during the periods the remotely controlled station is in operation, the frequencies used for emission by the remotely controlled transmitter must be continuously monitored by the control operator. The control operator must terminate transmission upon any deviation from the rules.

(4) Provisions must be incorporated to automatically limit transmission to a period of no more than 3 minutes in the event of malfunction in the control link.

(5) A remotely controlled station may not be operated at any location other than that specified on the license without prior approval of the Commission except in emergencies involving the immediate safety of life or protection of property.

(6) A repeater station may be operated by radio remote control only where the control link utilizes frequencies other than the repeater station receiving frequencies.

§ 97.109 Operation of a control station.

(a) Amateur frequency bands above 220 MHz, excepting 435 to 438 MHz, may be used for emissions by a control station. Frequencies below 225 MHz used for control links must be monitored by the control operator immediately prior to, and during, periods of operation.

(b) Where a remotely controlled station has been authorized to be operated from one or more remote control stations, those remote control stations may be operated either mobile or portable.

§ 97.110 Operation of an auxiliary link station.

(a) An auxiliary link station may use amateur frequency bands above 220 MHz excepting 435 to 438 MHz for emissions. Frequencies below 225 MHz used by an auxiliary link station shall be monitored by the control operator immediately prior to, and during, periods of operation.

(b) An auxiliary link station may only be used for fixed operation from the location specified on the station license, and only when its associated station(s) is operated from its authorized land location.

§ 97.111 Operation of a repeater station.

(a) Emissions from a repeater station shall be discontinued within 5 seconds after cessation of radiocommunication by the user station. Provisions to automatically limit the access to a repeater station may be incorporated, but are not mandatory.

(b) The transmitting and receiving frequencies utilized by the repeater station shall be continuously monitored by the control operator immediately prior to, and during, periods of operation.

(c) A repeater station may be concurrently operated on more than one frequency band, provided the necessary showings have been approved by the Commission for each frequency band of operation. Crossband operation of repeater stations is prohibited, i.e. both input (receiving) and output (transmitting) frequencies for a particular repeated transmission must be within the same frequency band. Operation on more than one output frequency on a single frequency band is prohibited except when specifically approved by the Commission. Repeater stations authorized to operate in conjunction with one or more auxiliary link stations may utilize an input frequency in a different frequency band provided the input frequency of the auxiliary link station(s) is in the same frequency band as the output frequency of the repeater station.

(d) A repeater station shall be operated in a manner so as to assure that the station is not used for one-way radiocommunication other than provided for in § 97.91.

(e) A station licensed as a repeater station may only be operated as a repeater station, excepting for short periods for testing or for emergencies.

18. In § 97.193, the introductory text of paragraph (a) is amended, and a new paragraph (e) is added to read as follows:

§ 97.193 Frequencies available.

(a) Except as provided in paragraph (e) of this section, the following frequency and frequency bands and associated emissions are available on a nonexclusive basis to the individual class of stations or units of such stations in the Radio Amateur Civil Emergency Service.

(e) A repeater station in the Radio Amateur Civil Emergency Service may operate on any frequency, and with any associated emission, above 50 MHz listed in paragraph (a) of this section, except for 220 MHz to 222 MHz.

19. Appendix 2 is amended by adding a footnote to section 1 as follows:

Section 1. Radio communications between amateur stations of different countries¹ shall be forbidden if the administration of one of the countries concerned has notified that it objects to such radio communications.

20. Appendix 5 is added, reading as follows:

¹ As may appear in public notices issued by the Commission.

APPENDIX 5

DETERMINATION OF ANTENNA HEIGHT ABOVE AVERAGE TERRAIN

The effective height of the transmitting antenna shall be the height of the antenna's center of radiation above "average terrain." For this purpose "effective height" shall be established as follows:

(a) On a U.S. Geological Survey Map having a scale of 1:250,000, lay out eight evenly spaced radials, extending from the transmitter site to a distance of 10 miles and beginning at 0° T. (0°, 45°, 90°, 135°, 180°, 225°, 270°, 315° T.) If preferred, maps of greater scale may be used.

(b) By reference to the map contour lines, established the ground elevation above mean sea level (AMSL) at 2, 4, 6, 8, and 10 miles from the antenna structure along each radial. If no elevation figure or contour line exists for any particular point, the nearest contour line elevation shall be employed.

(c) Calculate the arithmetic average of these 40 points of elevation (5 points of each of 8 radials).

(d) The height above average terrain of the antenna is thus the height AMSL of the antenna's center of radiation, minus the height of average terrain as calculated above.

NOTE 1: Where the transmitter is located near a large body of water, certain points of established elevation may fall over water. Where it is expected that service would be provided to land areas beyond the body of water, the points at water level in that direction should be included in the calculation of average elevation. Where it is expected that service would not be provided to land areas beyond the body of water, the points at water level should not be included in the average.

NOTE 2: In instances in which this procedure might provide unreasonable figures due to the unusual nature of the local terrain, applicant may provide additional data at his own discretion, and such data may be considered if deemed significant.

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Title 50—WILDLIFE AND FISHERIES

Chapter I—Bureau of Sport Fisheries and Wildlife, Fish and Wildlife Service, Department of the Interior

SUBCHAPTER B—HUNTING AND POSSESSION OF WILDLIFE

PART 10—MIGRATORY BIRDS

Open Seasons, Bag Limits, and Possession of Certain Migratory Game Birds; Corrections

There was published in the FEDERAL REGISTER of Friday, September 1, 1972 (37 F.R. 17838), certain amendments to Subpart K of this Part 10 which established open hunting seasons, bag limits, shooting hours, and certain closed seasons for migratory game birds for the 1972-73 hunting seasons.

It is necessary to make some corrections to the season lengths for the High Plains areas of the States of Kansas, Oklahoma, and South Dakota, and to revise the bag limit for geese in the States of Iowa and Minnesota. Since these amendments are in accordance with the desires of the respective States as ex-

pressed pursuant to a notice of proposed rule making published in the FEDERAL REGISTER of April 28, 1972 (37 F.R. 8530), and are for the purpose of correcting oversights in the publication of September 1, 1972 (37 F.R. 17838), it is determined that notice and public procedure thereon are impracticable, unnecessary, and contrary to the public interest, and these amendments shall be effective upon publication in the FEDERAL REGISTER.

Accordingly, Part 10, Subpart K of Title 50, Code of Federal Regulations, is amended as set out below:

§ 10.105 Seasons, limits, and shooting hours for waterfowl, coots, and gallinules.

(e) Atlantic, Mississippi, and Central Flyways: Footnote 19 is deleted from the table of footnotes. In the table of States the reference to footnote 19 is deleted after the States of Iowa and Minnesota and reference to footnote 20 is added, so that the footnote references for these States read as follows:

Iowa ^{20 20}	
Minnesota ^{13 20 26}	
(g) * * *	
(2) * * *	
Kansas:	
High Plains Area ⁴ -----	Oct. 21-Dec. 10.
	Dec. 13-Jan. 20.
Remainder of State-----	Oct. 21-Dec. 10.
	Dec. 13-Dec. 31.
Oklahoma:	
High Plains Area ⁵ -----	Oct. 11-Nov. 19.
	Dec. 6-Jan. 24.
Remainder of State-----	Oct. 21-Nov. 19.
	Dec. 6-Jan. 14.
South Dakota:	
High Plains Area ³ -----	Oct. 1-Dec. 9.
	Dec. 19-Jan. 7.
Remainder of State-----	Oct. 1-Dec. 9.

(16 U.S.C. 703-711)

Effective date: Upon publication in the FEDERAL REGISTER (9-13-72).

E. V. SCHMIDT,
Deputy Director, Bureau of
Sport Fisheries and Wildlife.

SEPTEMBER 7, 1972.

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SUBCHAPTER C—THE NATIONAL WILDLIFE REFUGE SYSTEM

PART 32—HUNTING

Crab Orchard National Wildlife Refuge, Ill.

The following special regulation is issued and is effective on date of publication in the FEDERAL REGISTER (9-13-72).

§ 32.12 Special regulations; migratory game birds, for individual wildlife refuge areas.

ILLINOIS

CRAB ORCHARD NATIONAL WILDLIFE REFUGE

Public hunting of ducks and coots on the Crab Orchard National Wildlife Refuge, Ill., is permitted from October 28 through December 16, 1972, and the