

CANAL ZONE GOVERNMENT  
OFFICE OF THE COORDINATOR CIVIL RADIO ACTIVITIES  
BALBOA HEIGHTS, CANAL ZONE

REGULATIONS  
GOVERNING  
AMATEUR RADIO SERVICE  
WITHIN THE CANAL ZONE



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Coordinator of Civil Radio Activities  
Balboa Heights, Canal Zone

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The Rules and Regulations stated herein are based on CZAR 27.9 and the Canal Zone Code, Title 2, Section 33. The Canal Zone was excluded from the 1934 Communications Act, and as a result, excluded from regulations promulgated by the Federal Communications Commission. The FCC office in Puerto Rico has designated the Coordinator of Amateur Radio Activities in the Canal Zone to give the FCC General Class test as a courtesy to those who wish an FCC license.

The Coordinator of Amateur Radio Activities is designated by the Governor of the Canal Zone, and as such designates the examiner for the administration of the General Class FCC test. This examiner must hold an FCC General Class license or higher. This test is graded by FCC in Puerto Rico and if the applicant passes, he receives an FCC license at his stateside address. FCC in Puerto Rico advises the Coordinator whether or not the applicant has passed the test. On this basis, the Coordinator issues a Canal Zone License. The Coordinator, at his discretion, uses the FCC regulations as a guide for Canal Zone regulations for Amateur radio operation. The Federal Communications Commission has no authority in the Canal Zone.

## REGULATIONS GOVERNING AMATEUR RADIO SERVICE WITHIN THE CANAL ZONE

1.11 **Basis and Purpose.** These instructions are designed to provide an amateur radio service having a fundamental purpose as expressed in the following principles: a. Recognition and enhancement of the value of the amateur service to the public as a voluntary non-commercial communication service, particularly with respect to providing emergency communications.

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 instructions which provide for advancing skills in both the communication and technical phases of the art.

d. Expansion of the existing reservoir within the amateur radio service of trained operators, technicians, and electronics experts.

e. Continuation and extension of the amateur's unique ability to enhance international goodwill.

1.12 **Amateur Service.** The term "amateur service" means a radio service carried on by amateur stations.

1.13 **Amateur Operator.** The term "amateur operator" means a person interested in radio technique solely with a personal aim and without pecuniary interest, and holding a valid license issued by the Coordinator authorizing him to operate licensed amateur stations.

1.14 **Amateur Station.** The term "amateur station" means a station used by an amateur operator. It embraces all radio transmitting apparatus at a particular location used for amateur service and operated under a single instrument of authorization.

1.15 **Amateur Portable Station.** The term "amateur portable station" means an amateur station that is so constructed that it may conveniently be moved from place to place for communication, but which is not operated while in motion.

1.16 **Amateur Mobile Station.** The term "amateur mobile sta-

tion" means an amateur station that is so constructed that it may conveniently be transferred to or from a mobile unit or from one such unit to another and is ordinarily used while such mobile unit is in motion.

**1.17 Amateur Radio Communications.** The term "amateur radio communications" means radio communications between amateur stations solely with a personal aim and without pecuniary interest.

**1.18 Remote Control.** The term "remote control," as applied to the amateur radio service, means control of transmitting equipment of an amateur station from an operating position other than one at which the transmitter is in view and immediately accessible; except that, direct mechanical control or direct electrical control by wired connections of an amateur transmitter from a point located on board any vessel or vehicle on which such transmitter is located shall not be considered remote control within the meaning of this definition.

## 1.20 GENERAL

**1.21 Who May Operate an Amateur Station.** An amateur radio station may be operated in the Canal Zone only by a person holding a valid amateur license issued by the Coordinator of Civil Radio Activities. Such a station may be operated by the licensee only in the manner and to the extent provided in his amateur license. Persons other than the licensee, when operating such station, may operate it only to the extent and in the manner authorized to the licensee of the station and not exceeding the operating authority of such person's own amateur license. When an amateur station is used for telephony, the station licensee may permit any person to transmit by voice, provided that during such transmission, call signs are announced as prescribed by paragraph 1.72 below, provided the duly licensed operator identifies his/her station at 10 minute intervals, and provided a duly licensed amateur maintains actual control over the emission, including turning the carrier on and off for each transmission and signing the station off after each communication with each station has been completed. The use of (VOX) in connection with phone patches is prohibited. The Coordinator has the option *at any time* to restrict the use of microphones, keys, telephone patches, or any other type of emissions, solely to the *licensed* Canal Zone Amateur operator.

**1.22 Scope of Operator Authority.** Amateur licenses are valid only for the operation of amateur stations duly licensed by the Coordinator and, on a temporary basis, for operation of experimental stations (except those which would operate in a proposed or established radio service) in the experimental service licensed by the Coordinator for operation exclusively on a frequency or frequencies above 450 megacycles. Such services must be performed without compensation, direct or indirect, paid or promised.

**1.23 Order of Suspension.** Nothing contained herein shall prevent the immediate revocation of a license where the licensee has violated the provisions of Articles 1.95, 1.21 and 2.26, or has permitted another person to do so.

### 1.30 AMATEUR OPERATORS' LICENSE AND PRIVILEGES

**1.31 Classes of Amateur Operator Licenses.** a. Amateur Extra Class.

b. Advanced Class.

c. General Class.

d. Technician Class.

e. Novice Class.

**1.32 Eligibility for License.** The following persons are eligible to apply for the various classes of amateur licenses: a. *Amateur Extra Class.* Any citizen of the United States, or non-U.S. citizen residing in the Canal Zone, who at any time prior to receipt of his application by the Coordinator has held for a period of 1 year or more a valid amateur license issued by the Coordinator or the Federal Communications Commission, excluding licenses of the Novice or Technician classes.

b. *Advanced Class.* Any citizen of the United States or non-U.S. citizen residing in the Canal Zone.

c. *General Class.* Any citizen of the United States or non-U.S. citizen residing in the Canal Zone.

d. *Technician Class.* Any citizen of the United States or non-U.S. citizen residing in the Canal Zone.

e. *Novice Class.* Any citizen of the United States or non-U.S. citizen residing in the Canal Zone, except a former holder of an amateur license of any class issued by any agency of the United States Government, military or civilian.



**1.33 Application for Amateur Operator License.** Refer to Article 1.61 below for information on preparation, forwarding, and approval of applications for amateur licenses.

**1.34 Classes and Privileges of Amateur Operator Licenses.** a. *Amateur Extra Class.* All authorized amateur privileges including such additional privileges in both communication and technical phases of the art which the Coordinator may consider appropriately limited to holders of this class of license.

b. *Advanced Class.* All amateur privileges except those which may be reserved to holders of the Amateur Extra class license.

c. *General Class.* All authorized amateur privileges except those which may be reserved to holders of the Extra and Advanced class licenses.

d. *Technician Class.* All authorized amateur privileges, in the amateur frequency band 50 to 54 megacycles, 145 to 147 megacycles, and in the amateur frequency bands above 220 megacycles.

e. *Novice Class.* Those amateur privileges as designated and limited as follows:

(1) The d.c. plate power input to the vacuum tube or tubes supplying power to the antenna shall not exceed 75 watts.

(2) Only the following frequency bands and types of emission may be used, and the emissions of the transmitter may be either crystal controlled, or a variable frequency oscillator may be used.

(a) 3700 to 3750 kilocycles, radiotelegraphy using only type A1 emission.

(b) 7100 to 7150 kilocycles, radiotelegraph using only type A1 emission.

(c) 21.100 to 21.200 megacycles, radiotelegraphy using only type A1 emission.

(d) 28.100 to 28.200 megacycles radio telegraphy using only type A1 emission.

**1.35 Availability of Operator License.** The original license of each licensee shall be kept in the personal possession of the licensee while operating an amateur station. When operating an amateur station at a fixed location, however, the license may be posted in a conspicuous place in the room occupied by the station. The license shall be available for inspection by the Coordinator, except when such license has

been filed with application for modification or renewal thereof; or has been mutilated, lost, or destroyed and application has been made for a duplicate license in accordance with the provisions of Article 1.36 below.

**1.36 Duplicate License.** Any licensee applying for a duplicate license to replace an original which has been lost, mutilated, or destroyed shall submit with the application the mutilated license or a statement setting forth the facts regarding the manner in which the original license was lost or destroyed. If the original license is found subsequent to receipt by the licensee of the duplicate license, either the duplicate or the original license shall be returned immediately to the Coordinator. In the case of loss or mutilation of FCC licenses, correspondence and application for issuance of duplicate will be directly with the FCC.

**1.37 Renewal of Amateur Operator License.** a. An amateur operator license, except the Novice class, may be renewed upon proper application stating that the applicant has lawfully accumulated a minimum total of either 2 hours operating time during the last 3 months or 5 hours operating time during the last 12 months of the license term. Such "operating time," for the purpose of renewal, shall be counted as the total of all that time between the entries in the station log showing the beginning and end of transmissions as required by Article 2.16a below, both during single transmissions and during a "sequence of transmissions" as provided in this section. The application shall include, in addition to the foregoing, a statement that the applicant can send by hand key; i.e., straight key or any other type of hand-operated key such as semi-automatic or electronic key, and receive by ear in plain language messages in the International Morse Code at a speed not less than that which was originally required for the class of license being renewed.

b. Application for renewal of an amateur operator license may not be filed earlier than 60 days prior to the date of expiration, and not later than a grace period of 1 year after such date of expiration. During this 1 year of grace period, an expired license is not valid. A renewed license issued upon the basis of an application filed during the grace period will be dated currently, and will not be back-dated to the date of expiration of the license being renewed.

c. The renewal application shall be accompanied by the applicant's amateur license.

d. Renewal applications shall be governed by applicable instructions in force on the date the application is filed.

e. The applicant shall qualify for a new license by examination if the requirements of this section are not fulfilled.

f. The Novice class license will not be renewed.

g. When renewing FCC licenses, the applicant will follow the rules established by the FCC. The renewal application and necessary fee will be forwarded directly to the FCC.

**1.38 License Term.** a. Amateur operator licenses (except Novice class) are valid for a period of 3 years from the date of issuance of a new or renewed license. Novice class is valid for a period of 2 years from the date of issuance. Canal Zone licenses granted on the basis of FCC licenses will not be valid in excess of 1 year beyond the expiration date of the FCC license.

b. Modified and duplicate licenses shall bear the same date of expiration as the license for which they are modifications or duplicates.

c. FCC license term is 5 years.

**1.39 Temporary Licenses.** Temporary Canal Zone operator licenses can be issued to qualified U.S. citizens or non-U.S. citizens who reside in the Canal Zone while on temporary duty in the Canal Zone under the following conditions: a. Person has in his possession a valid FCC license of General class or higher, excluding Conditional Class.

b. Person has made necessary arrangements to operate a specific licensed Canal Zone amateur station.

c. Person is familiar with the current instructions governing amateur radio service within the Canal Zone and can so demonstrate.

d. Temporary licenses can be obtained by personal visit of the applicant to the office of the Coordinator (Ancon, C.Z.) for verification of the applicant's FCC license. Temporary licenses will carry an extra letter (T) and duration of licenses is at discretion of Coordinator. Persons issued temporary Canal Zone licenses will notify the Coordinator of expected date of departure from the Canal Zone so that licenses can be canceled as of the departure date.

## 1.40 EXAMINATIONS

**1.41 When Examination Is Required.** An examination is required for the issuance of a new amateur license and for a change in class of operating privileges. However, credit may be given for specific or all elements of examination as provided in Article 1.46 below.

**1.42 Recognition of FCC Amateur Operator License.** An applicant who holds a valid amateur license issued by the Federal Communications Commission will not be required to take an examination if the privileges being requested are the same as those authorized by the class of FCC license held. Exception: Conditional class FCC licenses are not recognized in the Canal Zone. To qualify for this recognition of the FCC license, the applicant must submit a copy of his FCC license with his application for the Canal Zone license.

**1.43 Manner of Conducting Examinations.** All examinations for Canal Zone amateur licenses and privileges shall be conducted by personnel authorized by and at locations and times specified by the Coordinator of Amateur Radio Activities or his assistant (telephone 52-7854 or 52-7542. a. The FCC examinations for General class privileges are used as a basis for granting Canal Zone General class licenses. The following procedures apply:

(1) When a new applicant applies for an FCC General class amateur license, he will also be applying for a Canal Zone General license. Both the Canal Zone and FCC application forms will be completed, and a fee of \$4, payable to the FCC, will be required to accompany the FCC application. Applications will be processed and examination administered by the examiner designated by the Coordinator. The FCC General class examination will be used in all cases where an applicant is requesting General class privileges. The answer sheet, code test results, FCC application, and license fee will be forwarded to the FCC Field Engineering Office in San Juan, P.R., for grading and processing. Upon notification by FCC that applicant has passed the examination, the Coordinator will issue Canal Zone license and call sign. FCC San Juan office will forward the applications to the FCC Gettysburg office where the FCC license will be issued and mailed directly to the applicant.

(2) Holders of Canal Zone General class licenses who desire to take the FCC General class examination may arrange to do so

by calling Phone No. 52-7854 or 52-7542 for an appointment and completing the examination and application requirements as outlined in subparagraph (1) above. As in the case of new applicants, complete answer sheets, etc. will be forwarded to the FCC San Juan office for further processing.

b. The complete FCC General class examination (both code and theory) will be required prior to issue of a Canal Zone General class license to holders of FCC Conditional class.

**1.44 Examination Credit.** In addition to the provisions of Article 1.42 above, examination credits will be given as follows: a. An applicant for a higher class of amateur license who holds a valid amateur license issued upon the basis of an examination by the Coordinator or the Federal Communications Commission will be required to pass only those elements of the higher class examination that were not included in the examination for the amateur license held when such application is filed, except that credit will not be allowed for Conditional class licenses issued by the Federal Communications Commission in accordance with FCC "absentee" provisions as apply to the FCC Conditional class license (Section 12.44, FCC Rules Governing Amateur Radio Service), and except further that in the case of a license issued by the FCC, applicant must be able to prove bonafide operation under said FCC license and under appropriate FCC jurisdiction.

b. No examination credit, except as herein provided, shall be allowed on the basis of holding or having held any amateur or commercial operator license.

**1.45 Examination Procedure.** Examinations will not be given without prior appointment. Appointments may be made by calling 52-7854 or 52-7573. Code tests will be written or hand-printed with either pen and ink or with pencil. Applicants unable to comply with these requirements because of physical disability may dictate their answers to examination questions. If the examination or any part thereof is dictated the examiner shall certify the nature of the applicant's disability and the name and address of the person(s) taking and transcribing the applicant's dictation. a. *Grading of Examinations.* Code tests are graded as "passed" or "failed," separately for sending or receiving tests. Failure to pass the required code test for either sending or receiving will terminate the examination; code test must

be successfully completed prior to taking the written examination. Seventy-four percent is the passing grade for written examinations.

b. *Eligibility for Re-Examination.* An applicant who fails an examination for amateur privileges will not be eligible for another examination for such privileges until a period of at least 30 days has elapsed. No credit will be given for any element which may have been successfully completed during the preceding examination.

c. *Code Test Procedure.* The code test required of an applicant for amateur radio license, shall determine the applicant's ability to transmit by hand key and to receive by ear, in plain language, messages in the International Morse Code at not less than the prescribed speed. Code tests must be free of omission or other error for a continuous period of at least 1 minute during a test period of 5 minutes, counting five characters to the word and counting each numeral or punctuation mark as two characters. If furnished by applicant, any type of hand-operated key, such as a semi-automatic or electronic key, may be substituted for the straight key furnished by the examining office for the code sending test.

## 1.50 AMATEUR RADIO STATION LICENSE

1.51 *Eligibility.* a. Any citizen of the United States or non-U.S. citizen residing in the Canal Zone who holds a valid Canal Zone amateur radio license or a valid amateur radio operator license issued by the Federal Communication Commission (other than FCC Conditional class) is eligible to apply for a Canal Zone amateur radio station license.

b. Any citizen of the United States or non-U.S. citizen residing in the Canal Zone who, although he is not a licensed amateur radio operator, has been approved by the Coordinator as the official in charge of an amateur radio station established for training purposes in connection with activities of the above agencies. Trustees for such stations not holding valid amateur operator licenses are not authorized to operate the station for which they are trustees. Application for such organizational license makes provision for designation of an operator in charge who must hold at least a Canal Zone General Class Amateur operator's license or higher.

c. United States citizens who reside in the Republic of Panama

may be granted a Canal Zone license providing a licensed Canal Zone radio amateur acts as his sponsor. The sponsor must agree to being a sponsor and must sign the application as sponsor. His primary function is to provide a point of contact who will always know how to reach the licensee by mail or telephone.

(1) Holders of such sponsored licenses are bound by these instructions in all other respects.

(2) Amateur operation is authorized only in the Canal Zone, from the sponsor's station, as guest operator of another fixed station in the Canal Zone, or from a mobile station (except aeronautical mobile) while in the Canal Zone.

**1.52 Eligibility of Corporations or Organizations to Hold License.** Except as provided in Article 1.51 above, an amateur station license will not be issued to a company, corporation, association, or organization, nor for their use, except that in the case of a bonafide amateur radio organization or society, a station license may be issued to a licensed amateur operator as trustee for such society.

**1.53 Location of Station.** a. Amateur station licenses will be granted to operate only such stations that are located and operated within the boundaries of the Canal Zone proper. In no case shall any amateur station, including any remote control point or portable amateur station, be established or operated outside the Canal Zone.

b. Only one fixed location will be authorized and designated in the license for each amateur station. Unless remote control of the transmitting apparatus is authorized, such apparatus shall be operated by a duly licensed amateur operator present at the location of such apparatus.

c. The granting of authority to operate by remote control is contingent upon the filing of a proper application, supported by:

(1) A showing of the applicant's control of the control point as well as of the remotely controlled transmitter.

(2) A description of the means which will be employed to control the transmitter.

(3) A statement indicating that the equipment for monitoring the transmissions is available at the control point.

(4) A statement of the precautions which will be taken to prevent access by unauthorized persons to the premises on which the controlled transmitting apparatus is located.

(5) A showing of possession of the necessary control lines between the transmitting apparatus and the control point.

**1.54 License Period.** The license of an amateur radio station is normally valid for a period of 3 years from the date of issuance of a new or renewed license, except that an amateur station license issued to the holder of a Novice class amateur license is valid for a period of 2 years from the date of issuance. Modified or duplicate licenses shall bear the same issue date and expiration date as the license for which they are modifications or duplicates.

**1.55 Authorized Apparatus.** An amateur station license authorizes the use under control of the licensee of all transmitting apparatus at the fixed location specified in the station license which is operated on any frequency or frequencies herein allocated to the amateur radio service. This license also authorizes the use under the control of the licensee of portable and mobile transmitting apparatus operated at other locations in the Canal Zone.

**1.56 Renewal of Amateur Station License.** An amateur station license may be renewed upon request. Such requests must not be filed prior to 60 days from the date of expiration of the license and not later than a grace period of 1 year from the date of expiration. An expired license is not valid. A renewed license issued on the basis of an application filed during the grace period will be dated as of the date of issue and will not be backdated. a. The renewal application shall be accompanied by the applicant's amateur radio license.

b. Renewal applications shall be governed by applicable rules in force on the date when application is filed.

**1.57 Availability of Station License.** The station license of each amateur station, or a photocopy thereof, shall be posted in a conspicuous place in the room occupied by the licensed operator while the station is being operated at a fixed location, or shall be kept in his personal possession. When the station is operated at other than a fixed location, the station license or a photocopy thereof shall be kept in the personal possession of the licensee (or a licensed representative) who shall be present at the station while it is being operated as a portable station. The station license shall be available for inspection by the Coordinator at all times while the station is being operated and at other times upon request made by the Coordinator, except when such license has been filed with application for modification or renewal thereof, or has been mutilated, lost or destroyed, and



application has been made for a duplicate license in accordance with the provisions of Article 1.36 above. The posting of the special Amateur Radio Station License issued by the Coordinator in a conspicuous place in the location occupied by the licensed operator while the station is being operated will satisfy the "posting" requirements of Article 1.57.

**1.58 Revocation of Station License.** An order of revocation shall contain a statement of the grounds and reasons for such proposed revocation. All communications relating to such an order shall be effected directly between the Coordinator and the station licensee, an information copy thereof being furnished to the official concerned.

a. All amateur operations at the station shall cease upon receipt of an order of revocation.

b. When a station license is revoked, it shall be forwarded to the Coordinator without delay.

c. Nothing contained herein shall prevent the immediate revocation of a station license when the licensee has violated the provisions of Article 2.26 below or has permitted another person to do so.

**1.59 Modification of Station License.** Whenever the Coordinator determines that public interest, convenience and necessity would be served or any treaty ratified by the United States would be more fully complied with by modification of any amateur station license, either for a limited time or for the duration of the term thereof, such station license shall be modified.

## 1.60 APPLICATION FOR OPERATOR AND STATION LICENSE

**1.61 Application for License.** Formal application will be prepared in accordance with instructions contained herein when applying for a new, modified (change in address or location of station), renewed or duplicate license for an amateur radio station and/or an amateur radio operator license. a. Form 1518, Application for Amateur Radio Privileges, will be used when the applicant is applying for an individual amateur radio station license, an amateur radio operator license, or both.

## 1.70 CALL SIGNS

**1.71 Assignment of Call Signs.** The call signs of amateur stations will be assigned by the Coordinator from the block of calls KZ5AA to KZ5ZZ, inclusive. A request for a specific assignment within the above mentioned block may be granted if such call is unassigned and available for assignment. No call sign will be reassigned until any former assignment has expired for at least 2 years.

**1.72 Transmission of Call Signs.** a. (1) The operator of an amateur station shall transmit the call sign of the station or stations being called (or may transmit the generally accepted identification of the network), or shall identify appropriately any other purpose of a transmission, followed by the authorized call sign of the station transmitting:

(a) At least once every 10 minutes; or

(b) At the beginning and end of each transmission of more than 3 minutes duration; or

(c) The call sign of the transmitting station only may be sent at the end of a single transmission which represents a completed communication (i.e. — TAIL — ENDING).

(d) A duly licensed operator, when operating a station other than his own, must use the call sign licensed to the location from which he is operating, in addition to his own call. Example: "This is KZ5EJ, with KZ5AS at the microphone."

(2) The required identification shall be transmitted on the frequency or frequencies being employed at the time and, in accordance with the type of emission authorized thereon, shall be by either telegraphy using the International Morse Code, teleprinter, or telephony. In addition to the foregoing, when a method of communication other than telephony, teleprinter or telegraphy using the International Morse Code is being used or attempted, the prescribed identification shall also be transmitted by that method.

b. In addition to complying with the requirements of subparagraph a. above, an operator of an amateur station operated as a portable or mobile station using radiotelegraphy shall transmit at least once during the communication that the station is being operated portable (mobile) in the Canal Zone. When telephony is used, the call of the

station shall be preceded by the words, "This is . . ." or the word "From . . ." instead of the letters "DE . . ." followed by announcement that the station is being operated portable (mobile) in the Canal Zone.

Example: Portable (mobile) amateur radiotelephone station operating in the Canal Zone would call a fixed, mobile or portable station as follows: "W2ABC, W2ABC, W2ABC, this is (or the word from) KZ5WX, KZ5WX, KZ5WX portable (mobile)."

c. When telephony is used, the transmission of call signs prescribed by subparagraphs a. and b. above may be made by the person transmitting by voice in lieu of a duly licensed operator, provided the licensed operator maintains the control required by Article 1.21 above.

d. When telephony is used, phonetic aids may be employed to identify the call sign of the station.

## 1.80 PORTABLE AND MOBILE STATIONS

**1.81 Requirements for Portable and Mobile Operation.** a. Within the Canal Zone, an amateur station may be operated as either a portable or mobile station on any frequency authorized and available for the amateur radio service, except that mobile operation is not permitted from aircraft. Notice of such operation in accordance with the provisions of subparagraph c. below shall be given to the Coordinator of Civil Radio Activities, Box "L", Balboa Heights, C.Z.

b. When outside the limits of the Canal Zone, an amateur radio station may not be operated as portable or mobile using a Canal Zone call sign.

c. *Notice of Operation.* Whenever an amateur station is, or is likely to be, operated for a period in excess of 48 hours away from the fixed transmitter location specified on the station license without return thereto, the licensee shall give advance written notice of such operation to the Coordinator of Civil Radio Activities, requesting permission for this type of operation. A new notice is required whenever there is any change in 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 specific information:

- (1) Name of licensee.
- (2) Station call sign.
- (3) Authorized fixed transmitting location.
- (4) Portable location(s), or mobile itinerary as specifically as

possible, temporary fixed transmitter location, or new permanent fixed transmitter location.

(5) The dates of beginning and end of each period of operation away from the location specified in the station license.

(6) The address at which, or through which, the licensee can be readily reached.

(7) In the case of mobile operation, the license number of the vehicle in which the mobile station is installed and operated.

(8) If the location of the proposed operation will be within any Canal Zone Government/Panama Canal Company building, the above notice shall be routed through the Coordinator.

**1.82 Special Provisions for Portable and Mobile Operation.** Under no circumstances will maritime mobile operation be permitted in Canal Zone waters, in accordance with CFR 35. No operation will be permitted from any moving craft in the Canal Zone waters. Commercial, Naval, or pleasure craft docked in Canal Zone waters shall be considered to be in a fixed location as long as they remain docked, Amateur operators aboard such craft who hold a valid FCC license (excluding Conditional Class) of General Class or higher, may operate their stations upon receipt of a temporary Canal Zone license and call sign as outlined in Article 1.39d above.

**1.83 Special Provisions for Nonportable Stations.** The specific provisions of these Instructions relative to portable stations are not applicable to a nonportable station, except that: a. An amateur station that has been moved from one permanent location to another permanent location may be operated at the latter location in accordance with the provisions governing portable stations (including written notice to the Coordinator) for a period not to exceed 2 months, but in no event beyond the expiration date of the license, provided that a formal application for modification of license to change the permanent location has been submitted to the Coordinator.

b. The licensee of an amateur station who changes residence temporarily and moves his station to a temporary location associated with his temporary residence, or the designated officer of an organization which changes the normal location of its amateur station to a different and temporary location, may use the station at the temporary location if the station is to remain there for a period of not more than 2 months, and the following requirements are met:

(1) The provisions of Article 1.51 above are fulfilled.

(2) Advance written notice shall be given by the amateur station licensee or licensee-trustee to the Coordinator.

(3) Similar notice shall be given for each change in station location and for transfer of the station to the former permanent location, before the transmitting apparatus is operated.

c. When the station is operated under the provisions of Article 1.83 a. and b. above, the calling procedure specified in Article 1.72 above shall be used, including the transmissions required by Article 1.72 b. and c. above.

## 1.90 USE OF AMATEUR STATIONS

**1.91 Point of Communications.** An amateur station may be used to communicate with other amateur stations, except that in emergencies or for test purposes, it may also be used temporarily for communication with other classes of stations licensed by the Federal Communications Commission and with United States Government Stations. Amateur stations may also be used to communicate with any radio station other than amateur which is authorized by the Federal Communications Commission or the Coordinator to communicate with amateur stations. Amateur stations may also be used for transmitting signals, communications, or energy to receiving apparatus, for the measurement of emissions, temporary observation of transmission phenomena, and radio control of remote objects, for similar experimental purposes, and for the purposes set forth in Article 1.96 of these Instructions.

**1.92 No Remuneration for Use of Station.** An amateur station shall not be used to transmit or receive messages for hire, nor for material compensation, direct or indirect, paid or promised.

**1.93 Broadcasting Prohibited.** Subject to the provisions of Article 1.96 of these Instructions, an amateur station shall not be used to engage in any form of broadcasting; that is, the dissemination of radio communications intended to be received by the public directly or by intermediary or relay stations, nor for the retransmission by automatic means of programs or signals emanating from any class of station other than amateur. The foregoing provision shall not be construed to prohibit amateur operators from giving their consent to the rebroadcast by broadcast stations of the transmissions

of their amateur stations, provided that the transmissions of the amateur station shall not contain any direct or indirect reference to the rebroadcast.

**1.94 Radiotelephone Tests.** The transmission of music by an amateur station is forbidden; however, single audio-frequency tones may be transmitted for test purposes of short duration for the development and perfection of amateur radiotelephone equipment.

**1.95 Codes and Ciphers Prohibited.** The transmission by radio of messages in codes or ciphers in domestic and international communications to or between amateur stations is prohibited. All communications, regardless of type or emission employed, shall be in plain language except that generally recognized abbreviations established by regulation or custom and usage are permissible, as are any other abbreviations or signals where the intent is not to obscure the meaning, but only to facilitate communications.

**1.96 One-Way Communications.** In addition to the experimental one-way transmissions permitted by Article 1.91 above, the following kinds of one-way communications, addressed to amateur stations, are authorized and will not be construed as broadcasting: a. Emergency communications, including bonafide emergency drill practice transmissions.

b. Information bulletins consisting solely of subject matter having direct interest to the amateur radio service as such.

c. Round-table discussions or net type operations where more than two amateur stations are in communication, each station taking a turn at transmitting to other station(s) of the group.

d. Code practice transmissions intended for persons learning or improving proficiency in the International Morse Code.

**1.97 Special Provisions Regarding Radio Teleprinter Transmissions.** The following special conditions shall be observed during the transmission of radio teleprinter signals on authorized frequencies by amateur stations: a. A single channel five-unit (start-stop) teleprinter code shall be used which shall correspond to International Telegraphic Alphabet Nr 2 with respect to all letters and numerals (including the slant sign or fraction bar), but special signals may be employed for the remote control of receiving printers or for other purposes, in "figures" positions not utilized for numerals. In general,

this code shall conform as nearly as possible to the teleprinter code or codes in common commercial usage in the United States.

b. The normal transmitting speed of the radio teleprinter signal keying equipment shall be adjusted as closely as possible to one of the standard teleprinter speeds, namely 60 (45 bauds), 67 (50 bauds), 75 (56.25 bauds) or 100 (75 bauds) words per minute, and in any event, within the range of + or - 5 words per minute of the selected standard speed.

c. When frequency-shift keying (type F1 emission) is utilized, the deviation in frequency from the mark signal to the space signal, or from the space signal to the mark signal, shall be less than 900 cycles per second.

d. When audio-frequency-shift keying (type A2 or type F2 emission) is utilized, the highest fundamental modulating audio frequency shall not exceed 3000 cycles per second, and the difference between the modulating audio frequency for the mark signal and that for the space signal shall be not less than 900 cycles per second.

## 2.00 ALLOCATION OF FREQUENCIES

**2.01 Frequencies and Types of Emission for Use of Amateur Stations.** a. Subject to the limitations and restrictions set forth herein and in Article 2.03 of these Instructions, the following frequency bands and types of emissions are allocated and available for amateur station operation:

(1) 1800 to 2000 KCS. Use of this band is on a shared basis with the loran system of radio navigation and other governmental services. The use of these frequencies by amateur stations shall not cause harmful interference to the loran system of radio navigation or government services. nor shall use be a bar to expansion of the loran radio navigation service. Such use and the limitations and conditions of such use as set for herein shall be considered temporary in the sense that they shall remain subject to cancellation or revision, in whole or in part, without hearing, whenever the Coordinator shall deem such cancellation or revision to be necessary or desirable in the light of the priority within this band of the loran system of radio navigation. Such operation is restricted to type A1 or A3 emission; power input to the plate circuit of the tube or tubes supplying power to the antenna shall not exceed 500 watts day, 100 watts night.

(2) 3500 to 4000 KCS. Use of this band is restricted to amateur radio stations as follows:

(a) 3500 to 4000 KCS, using type A1 emission and on frequencies 3500 to 3775 KCS, using type F1 emission.

(b) 3600 to 4000 KCS, using type A3 emission and narrow-band frequency or phase modulation for radiotelephony.

(3) 7000 to 7300 KCS, using type A1 emission; and on frequencies 7000 to 7150 KCS, using type F1 emission; and on frequencies 7050 to 7300 KCS, using type A3 emission or narrow-band frequency or phase modulation for radiotelephony, and on frequencies 7150 to 7225 KCS using type A5 or F5 Emission.

(4) 14000 to 14350 KCS, using type A1 emission; 14000 to 14200 KCS and 14300 to 14350 KCS, using type F1 emission; and on frequencies 14100 to 14350 KCS, type A3 emission or narrow-band frequency or phase modulation for telephony.

(5) 21.0 to 21.45 MCS, using A1 emission; 21.0 to 21.25 MCS, using type F1 emission; and 21.1 to 21.45 MCS, using type A3 emission and narrow-band frequency or phase modulation for telephony.

(6) 28.0 to 29.7 MCS, using type A1 emission and, on frequencies 28.1 to 29.7 MCS, using type A3 emission and narrow-band frequency or phase modulation for radiotelephony and, on frequencies 29.0 to 29.7 MCS, using special emission for frequency modulation (radiotelephone transmissions and radiotelegraph transmissions employing carrier shift or other frequency modulation techniques).

(7) 50.0 to 54.0 MCS, using types A1, A2, A3, and A4 emission and narrow-band frequency or phase modulation for radiotelephony and, on frequencies 52.5 to 54.0 MCS, special emission for frequency modulation (radiotelephone transmissions and radiotelegraph transmissions employing carrier shift or other frequency modulation techniques).

(8) 144 to 148 MCS, using types A0, A1, A2, A3, and A4 emission and special emission for frequency modulation (radiotelephone transmissions and radiotelegraph transmissions employing carrier shift or other frequency modulation techniques).

(9) 220 to 7225 MCS, using types A0, A1, A2, A3, A4, F0, F1, F2, F3, and F4 emission. In this band the amateur service shall



not cause harmful interference to the government radiopositioning service.

(10) 420 to 450 MCS, using types A0, A1, A2, A3, A4, A5, F0, F1, F2, F3, F4, and F5 emission. In this band the amateur service shall not cause harmful interference to the government radiopositioning service.

(11) 1215 to 1300 MCS, using types A0, A1, A2, A3, A4, A5, F0, F1, F2, F3, F4, and F5 emission. In this band the amateur service shall not cause harmful interference to the government radiopositioning service.

(12) 2300 to 2450 MCS, 3500 to 3700 MCS, and 5650 to 5925 MCS, using types A0, A1, A2, A3, A4, A5, F0, F1, F2, F3, F4, F5, and pulse emission. Operations in the frequency bands 2300 to 2450 MCS and 5650 to 5925 MCS are subject to such interference between 2400 and 2450 MCS and between 5775 and 5925 MCS, respectively, as may result from emissions of industrial, scientific and medical devices on the frequencies 2450 and 5850 MCS, respectively. In these bands the amateur service shall not cause harmful interference to the government radiopositioning service.

(13) 10000 to 10500 MCS, using A0, A1, A2, A3, A4, A5, F0, F1, F2, F3, F4, and F5 emission. In this band the amateur service shall not cause harmful interference to the government radiopositioning service.

(14) 21000 to 22000 MCS, and any frequency or frequencies above 30000 MCS, using A0, A1, A2, A3, A4, A5, F0, F1, F2, F3, F4, F5, and pulse emission.

**2.02 Individual Frequency Not Specified.** Transmissions by an amateur station may be on any frequency within any authorized amateur band. Sideband frequencies resulting from keying or modulating a carrier wave shall be confined within the authorized amateur band.

**2.03 Types of Emission.** a. Type A0 emission, where not specifically designated in the bands listed in Article 2.01 of these Instructions, may be used for short periods of time when required for authorized remote control purposes or for experimental purposes. However, these limitations do not apply where type A0 emission is specifically designated.

b. The use of narrow-band frequency or phase modulation is subject to the conditions that the bandwidth of the modulated carrier

shall not exceed the bandwidth occupied by an amplitude-modulated carrier of the same audio characteristics, and that the purity and stability of such emissions shall be maintained in accordance with the requirements of Article 2.13 of these Instructions.

c. Whenever code practice, in accordance with Article 1.96d, is conducted in the bands authorized for A3 emission, tone modulation of the radiotelephone transmitter may be utilized when interspersed with appropriate voice instructions.

## 2.10 EQUIPMENT AND OPERATION

**2.11 Maximum Authorized Power.** Except for novice stations, as outlined in Article 1.34, each amateur transmitter may be operated with power input not exceeding one kilowatt to the plate circuit of the final amplifier stage of an amplifier-oscillator transmitter or to the plate circuit of an oscillator transmitter. An amateur transmitter operating with a power input exceeding 900 watts to the plate circuit shall provide means for measuring accurately the plate power input to the vacuum tube or tubes supplying power to the antenna.

**2.12 Power Supply to Transmitter.** The licensee of an amateur station using frequency below 144 megacycles shall use adequately filtered direct-current plate power supply for the transmitting equipment to minimize modulation from this source.

**2.13 Purity and Stability of Emission.** Spurious radiation from an amateur station being operated with a carrier frequency below 144 megacycles shall be reduced or eliminated in accordance with good engineering practice. This spurious radiation shall not be of sufficient intensity to cause interference in receiving equipment of good engineering design, including adequate selectivity characteristics, which is tuned to a frequency or frequencies outside the frequency band of emission normally required for the type of emission being employed by the amateur station. In the case of A3 emission, the amateur transmitter shall not be modulated to the extent that interfering spurious radiation occurs, and in no case shall the emitted carrier wave be amplitude modulated in excess of 100 percent. Means shall be employed to insure that the transmitter is not modulated in excess of its modulation capability for proper technical operation. For the purpose of this paragraph, a spurious radiation is any radiation from a transmitter which is outside the frequency band of emission normal

for the type of emission employed, including any component whose frequency is an integral multiple or submultiple of the carrier frequency (harmonics and subharmonics), spurious modulation products, key clicks, and other transient effects, and parasitic oscillations. When using amplitude modulation on frequencies below 144 megacycles, simultaneous frequency modulation is not permitted; and when using frequency modulation on frequencies below 144 megacycles, simultaneous amplitude modulation is not permitted. The frequency of the emitted carrier wave shall be as constant as the state of the art permits.

**2.14 Modulation of Carrier Wave.** Except for brief tests or adjustments, an amateur radiotelephone station shall not emit a carrier wave on frequencies below 51 megacycles unless modulated for the purpose of communication.

**2.15 Frequency Measurement and Regular Check.** The licensee of an amateur station shall provide for measurement of the emitted carrier frequency or frequencies and shall establish procedure for making such measurement regularly. The measurement of the emitted carrier frequency or frequencies shall be made by means independent of the means used to control the radio frequency or frequencies generated by the transmitting apparatus and shall be of sufficient accuracy to assure operation within the amateur frequency band used.

**2.16 Logs.** Each licensee of an amateur station shall keep an accurate log of station operation, including the following: a. The date and time of each transmission. (The date need be entered only once for each day's operation.) The expression "time of each transmission" means the time of making a call and need not be repeated during the sequence of communications which immediately follows; however, an entry shall be made in the log when signing off, so as to show the period during which communications were carried on.

b. The signature of each licensed operator who manipulates the key of a radiotelegraph transmitter, the signature of each licensed operator who operates a transmitter of any other type, and the name of any person not holding an amateur operator license who either directly or by recording transmits by voice over a radiotelephone transmitter or operates a teleprinter keying a radiotelegraph transmitter. Full names of persons employing telephone patches are to be included. (The signature of the operator need be entered only once in the log in those cases where all transmissions are made by or under

the supervision of the signatory operator, provided a statement to that effect is also entered. The signature of any other operator who operated the station shall be entered in the proper space for that operator's transmission.)

c. Call of the station called. (This entry need not be repeated for calls made to the same station during any sequence of communication, provided the time of signing off is entered.)

d. The input power to the oscillator, or to the final amplifier stage where an oscillator-amplifier transmitter is employed. (This need be entered only once, provided the input power is not changed.)

e. The frequency band used. (This information need be entered only once in the log for all transmissions until there is a change in frequency to another amateur band.)

f. The type of emission used. (This need be entered only once until there is a change in the type of emission.)

g. The location of the station (or the approximate geographical location of a mobile station) at the time of each transmission. (This need be entered only once provided the location of the station is not changed. However, suitable entry shall be made upon changing the location. Where operating at other than a fixed location, the type and identity of the vehicle or other mobile unit in which the station is operated shall be shown.)

h. The message traffic handled. (If record communications are handled in regular message form, a copy of each message sent and received shall be entered in the log or retained on file at the station for at least 1 year.

**2.17. Retention of Logs.** The logs shall be preserved for a period of at least 1 year following the last date of entry. The copies of record communications and station log required by Article 2.16 above shall be available for inspection by the Coordinator.

## 2.20 SPECIAL CONDITIONS

**2.21 Additional Conditions to Be Observed by Licensees.** In all respects not specifically covered by these Instructions, each amateur station shall be operated in accordance with good engineering and good amateur practices.

**2.22 Restricted Operation.** If the operation of an amateur station

causes an interference problem of any nature whatsoever, regardless of which party is suspected of being at fault, the Coordinator, at his discretion, may order the amateur station involved to cease operation until the problem is resolved to the satisfaction of the Coordinator.

**2.23 Prohibited Transmissions.** a. No licensed radio operator or other person shall transmit by radio any information or any statement which is, or may be, prejudicial to the security and defense of the Panama Canal, the United States of America, or the sovereignty of the Republic of Panama.

b. No licensed radio operator shall transmit, or permit any other person to transmit, any communication in cryptographic form.

c. No licensed radio operator or other person shall transmit any international communication except when such communication is destined for a country which does not object to such transmissions by amateur stations. Countries with whom two-way amateur communication is not authorized are those which are on the Federal Communications Commission banned list. Exceptions for specific stations are identical to FCC exceptions.

d. No licensed amateur radio operator or other person shall transmit communications containing obscene, indecent, or profane words, language, music or meaning.

e. No licensed amateur operator or other person shall transmit any communication or signal of any kind, or activate an amateur radio transmitter for any purpose whatsoever during any period when the suspension of amateur radio operations is ordered by the Coordinator or other competent authority of the United States Government.

f. No licensed amateur operator or other person shall transmit any message or communication of a commercial nature on any amateur frequency except in bonafide emergencies.

g. Communications on Behalf of Third Parties.

(1) Bilateral agreements concluded between the United States and certain countries allow amateur radio stations to exchange messages or other communications internationally from or to third parties. These countries are: Argentina, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Israel, Jordan, Liberia, Mexico, Nicaragua, Panama, Paraguay,

Peru, Trinidad and Tobago, Uruguay, and Venezuela. Additionally stations in Greenland with XP calls, stations using calls like WILVQ/8PS from Barbados, and stations serving Project Hope from Jamaica may handle traffic with Canal Zone. Certain countries permit operation for third parties during holiday seasons—listen for bulletins over WIAW. These agreements involve United States amateurs and include licensed amateurs in the Canal Zone.

(2) When communicating with amateurs in countries other than those listed, amateurs licensed by the Coordinator are expressly forbidden to use their amateur stations for the transmission of international communications on behalf of third parties.

**h. False Signals.** No licensed amateur operator shall transmit false or deceptive signals or communications by radio, or any call letter or call sign which has not been assigned by proper authority to the station he is operating.

**i. Unidentified Communications.** No licensed amateur operator shall transmit unidentified radio communications or signals.

**j. Interference.** No licensed amateur operator will willfully or maliciously interfere with or cause interference to any radio communication or signal.

**2.24 Damage to Apparatus.** No licensed amateur operator shall willfully damage, or cause or permit to be damaged, any radio apparatus or installation of any licensed radio station.

**2.25 Fraudulent Licenses.** No licensed amateur operator or other person shall obtain or attempt to obtain, or assist another person to obtain or attempt to obtain, an operator license by fraudulent means.

**2.26 Telephone Patches.** All Canal Zone Amateur Radio operators are required to be knowledgeable of the language spoken over their phone patch equipment. If the operator is not fluent in the language, he is not permitted to initiate or accept requests for patches. The Operator is required to understand what is being transmitted over his equipment at all times.

## 2.30 RADIO AMATEUR CIVIL EMERGENCY SERVICE (RACES)

**2.31 Purpose.** The purpose of radio amateur civil emergency service is to supplement or extend other means of communications available to civil defense and disaster control organizations, or to provide necessary communications for which no other means exist.

**2.32 Eligibility.** No person shall operate an amateur radio station in a civil defense or disaster control organization unless: a. That person holds a valid extra, advanced, or general class amateur license.

b. That person has been licensed to operate an amateur radio station in a communications network supporting a civil defense or disaster control organization.

**2.33 Public Action Signals.** There are two civil defense/disaster control public action signals: the ALERT SIGNAL and the TAKE COVER SIGNAL. These signals may be sounded in any order; consequently, the listing below does not signify a time sequence. The signals may be repeated to assure the public is fully alerted.

a. **ALERT SIGNAL.** A steady blast of 3 to 5 minutes duration. The signal will indicate to the public (military and civilian) to act according to the operations plans promulgated by the civil defense and disaster control authorities.

b. **TAKE COVER SIGNAL.** A wailing tone or a series of short blasts of 3 minutes duration. This signal will indicate that attack is imminent, and that the public must take the best available shelter immediately.

**2.34 Civil Defense-Disaster Control Instructions.** a. Radio broadcasts on 790 and 1420 KCS will supplement the ALERT and TAKE COVER signals referenced in Article 2.33 by instructing the public on specific and continuing actions to be taken in connection with civil defense/disaster control operations.

b. In addition to radio broadcasts, other means of communications, such as public address systems, person to person contact by wardens, police, and other officials may be used to supplement public action signals.

**2.35 Plan for Controlled Operation.** Upon receipt of PUBLIC ACTION SIGNAL: a. All amateur radio stations not licensed to operate in a radio communications net supporting a civil defense or disaster control organization will leave the air and maintain radio silence until authorized by the Coordinator to resume normal operations.

b. Amateur radio stations that are licensed to operate in a radio communications net supporting a civil defense or disaster control organization will operate in accordance with instructions contained

in the communications plan of the organization with which they are affiliated.

2.36. **Definition.** The term "controlled operation" includes both operation in a prescribed manner and cessation of operations producing radio silence.

2.37 Licensees of amateur radio stations in the Canal Zone who are interested in affiliating their stations with radio networks organized to provide communications service to civil defense or disaster control organizations should contact the following listed official:

Chief, Civil Defense, Box 451, Balboa Heights, C.Z.

2.38 In the event of a major disaster, the Coordinator may verbally authorize certain U.S. Government Agencies to operate Amateur Radio Stations without being duly licensed.