

Furthermore, the licensee shall not resume transmissions until the licensee establishes to the satisfaction of the Commission that further harmful interference will not be caused to any established radio service.

**§5.85 Frequencies and policy governing frequency assignment.**

(a) Stations operating in the Experimental Radio Service may be authorized to use any Federal or non-Federal frequency designated in the Table of Frequency Allocations set forth in part 2 of this chapter, provided that the need for the frequency requested is fully justified by the applicant, except that experimental stations may not use any frequency or frequency band exclusively allocated to the passive services (including the radio astronomy service). Stations authorized under subparts E and F are subject to additional restrictions.

(b) Frequency or frequency bands are assigned to stations in the Experimental Radio Service on a shared basis and are not assigned for the exclusive use of any one licensee. Frequency assignments may be restricted to specified geographical areas.

(c) *Broadcast experimental radio stations.* (1) The applicant shall select frequencies best suited to the purpose of the experimentation and on which there appears to be the least likelihood of interference to established stations.

(2) Except as indicated only frequencies allocated to broadcasting service are assigned. If an experiment cannot be feasibly conducted on frequencies allocated to a broadcasting service, an experimental station may be authorized to operate on other frequencies upon a satisfactory showing of the need therefore and a showing that the proposed operation can be conducted without causing harmful interference to established services.

(d) *Use of Public Safety Frequencies.*

(1) *Conventional experimental licenses.* Applicants in the Experimental Radio Service shall avoid use of public safety frequencies identified in part 90 of this chapter except when a compelling showing is made that use of such frequencies is in the public interest. If an experimental license to use public safety radio frequencies is granted, the au-

thorization will include a condition requiring the experimental licensee to coordinate the operation with the appropriate frequency coordinator or all of the public safety licensees using the frequencies in question in the experimenter's proposed area of operation.

(2) *Program experimental licenses.* A program licensee shall plan a program of experimentation that avoids use of public safety frequencies, and may only operate on such frequencies when it can make a compelling showing that use of such frequencies is in the public interest. A licensee planning to operate on public safety frequencies must incorporate its public interest showing into the narrative statement it prepares under §5.309(a)(1), and must coordinate, prior to operating, with the appropriate frequency coordinator or all of the public safety licensees that operate on the frequencies in question in the program experimental licensee's proposed area of operation.

(e) The Commission may, at its discretion, condition any experimental license or STA on the requirement that before commencing operation, the new licensee coordinate its proposed facility with other licensees that may receive interference as a result of the new licensee's operations.

(f) *Protection of FCC monitoring stations.* (1) Applicants may need to protect FCC monitoring stations from interference and their station authorization may be conditioned accordingly. Geographical coordinates of such stations are listed in §0.121(b) of this chapter.

(2) In the event that calculated value of expected field strength exceeds a direct wave fundamental field strength of greater than 10 mV/m in the authorized bandwidth of service ( $-65.8$  dBW/m<sup>2</sup> power flux density assuming a free space characteristic impedance of  $120\pi$  ohms) at the reference coordinates, or if there is any question whether field strength levels might exceed the threshold value, the applicant should call the FCC, telephone 1-888-225-5322 (1-888-CALL FCC).

(3) Coordination is suggested particularly for those applicants who have no reliable data that indicates whether the field strength or power flux density figure indicated in paragraph (f)(2) of

this section would be exceeded by their proposed radio facilities (except mobile stations). The following is a suggested guide for determining whether coordination is needed:

(i) All stations within 2.4 kilometers (1.5 statute miles);

(ii) Stations within 4.8 kilometers (3 statute miles) with 50 watts or more average ERP in the primary plane of polarization in the azimuthal direction of the Monitoring Station;

(iii) Stations within 16 kilometers (10 statute miles) with 1 kW or more average ERP in the primary plane of polarization in the azimuthal direction of the Monitoring Station;

(iv) Stations within 80 kilometers (50 statute miles) with 25 kW or more average ERP in the primary plane of polarization in the azimuthal direction of the Monitoring Station.

(4) Advance coordination for stations operating above 1000 MHz is recommended only where the proposed station is in the vicinity of a monitoring station designated as a satellite monitoring facility in § 0.121(b) of this chapter and also meets the criteria outlined in paragraphs (f)(2) and (3) of this section.

#### § 5.91 Notification to the National Radio Astronomy Observatory.

In order to minimize possible harmful interference at the National Radio Astronomy Observatory site located at Green Bank, Pocahontas County, West Virginia, and at the Naval Radio Research Observatory site at Sugar Grove, Pendleton County, West Virginia, any applicant for an Experimental Radio Service station authorization other than a mobile, temporary base, or temporary fixed station, within the area bounded by 39°15' N on the north, 78°30' W on the east, 37°30' N on the south and 80°30' W on the west shall, at the time of filing such application with the Commission, simultaneously notify the Director, National Radio Astronomy Observatory, P.O. Box NZZ, Green Bank, West Virginia 24944, in writing, of the technical particulars of the proposed station. Such notification shall include the geographical coordinates of the antenna, antenna height, antenna directivity if any, frequency, type of emission, and

power. In addition, the applicant shall indicate in its application to the Commission the date notification was made to the Observatory. After receipt of such applications, the Commission will allow a period of twenty (20) days for comments or objections in response to the notifications indicated. If an objection to the proposed operation is received during the twenty-day period from the National Radio Astronomy Observatory for itself or on behalf of the Naval Radio Research Observatory, the Commission will consider all aspects of the problem and take whatever action is deemed appropriate.

#### § 5.95 Informal objections.

A person or entity desiring to object to or to oppose an Experimental Radio application for a station license or authorization may file an informal objection against that application. The informal objection and any responsive pleadings shall be submitted electronically consistent with the requirements set forth in § 5.55.

### Subpart C—Technical Standards and Operating Requirements

#### § 5.101 Frequency stability.

Experimental Radio Service licensees shall ensure that transmitted emissions remain within the authorized frequency band under normal operating conditions: Equipment is presumed to operate over the temperature range -20 to +50 degrees Celsius with an input voltage variation of 85% to 115% of rated input voltage, unless justification is presented to demonstrate otherwise.

#### § 5.103 Types of emission.

Stations in the Experimental Radio Service may be authorized to use any of the classifications of emissions covered in part 2 of this chapter.

#### § 5.105 Authorized bandwidth.

The occupied bandwidth of transmitted emissions from an Experimental Radio Service station shall not exceed the authorized bandwidth specified in the authorization. Each authorization will show, as the prefix to the