§ 22.757 BASIC EXCHANGE TELEPHONE RADIO SYSTEMS

§ 22.757 Channels for basic exchange telephone radio systems.

The channels listed in §22.725 are also allocated for paired assignment to transmitters in basic exchange telephone radio systems.

[70 FR 19309, Apr. 13, 2005]

§ 22.759 Power limit for BETRS.

The effective radiated power of central office and rural subscriber station transmitters used in basic exchange telephone radio systems must not exceed the limits in this section.

(a) Maximum ERP. The effective radiated power (ERP) of central office and rural subscriber station transmitters in BETRS must not exceed the applicable limits in this paragraph under any circumstances.


(b) Height-power limit. The ERP of central office stations in BETRS must not exceed the amount calculated as follows:

\[ ERP_{c} = \frac{557,418}{h_{a}^2} \]

where \( ERP_{c} \) is the effective radiated power in Watts \( h_{a} \) is the average (eight cardinal radial) antenna height above average terrain in meters

Subpart G—Air-Ground Radiotelephone Service

§ 22.801 Scope.

The rules in this subpart govern the licensing and operation of air-ground stations and systems. The licensing and operation of these stations and systems is also subject to rules elsewhere in this part and in part 1 of this chapter that generally apply to the Public Mobile Services. In case of conflict, however, the rules in this subpart govern.

[70 FR 19309, Apr. 13, 2005]
(b) **Technical information required.** For each transmitter in the Rural Radiotelephone Service, the following information is required by FCC Form 601:

1. Location description, city, county, state, geographic coordinates (NAD83) correct to ±1 second, site elevation above mean sea level, proximity to adjacent market boundaries and international borders;
2. Antenna height to tip above ground level, antenna gain in the maximum lobe, the electric field polarization of the wave emitted by the antenna when installed as proposed;
3. The center frequency of each channel requested, the maximum effective radiated power, any non-standard emission types to be used, including bandwidth and modulation type and the transmitter classification (e.g., ground or signaling).

§ 22.809 **Transmitting power limits.**

The transmitting power of ground and airborne mobile transmitters operating on the channels listed in §22.805 must not exceed the limits in this section.

(a) **Ground station transmitters.** The effective radiated power of ground stations must not exceed 100 Watts and must not be less than 50 Watts, except as provided in §22.811.

(b) **Airborne mobile transmitters.** The transmitter power output of airborne mobile transmitters must not exceed 25 Watts and must not be less than 4 Watts.

§ 22.813 **Technical channel pair assignment criteria.**

The rules in this section establish technical assignment criteria for the channel pairs listed in §22.805. These criteria are intended to provide substantial service volumes over areas that have significant local and regional general aviation activity, while maintaining the continuous nationwide in-route coverage of the original geographical layout.

(a) **Distance separation for co-channel ground stations.** The FCC may grant an application requesting assignment of a communication channel pair to a proposed ground transmitter only if the proposed antenna location is at least 800 kilometers (497 miles) from the antenna location of the nearest co-channel ground transmitter in the United States, its territories and possessions; and 1000 kilometers (621 miles) from the antenna location of the nearest co-channel ground transmitter in Canada.

(b) **Dispersion.** The FCC may grant an application requesting assignment of a communication channel pair to a proposed ground transmitter only if there are no more than five different communication channel pairs already assigned to ground transmitters with antenna locations within a 320 kilometer (199 mile) radius of the proposed antenna location.

§ 22.815 **Construction period for general aviation ground stations.**

The construction period (see §1.946 of this chapter) for general aviation ground stations is 12 months.

§ 22.817 **Additional channel policies.**

The rules in this section govern the processing of applications for authority to operate a ground station transmitter on any ground station communication channel listed in §22.805 when the applicant has applied or been granted an authorization for other ground station communication channels in the same area. The general policy of the FCC is to assign one ground station communication channel in an area to a carrier per application cycle, up to a maximum of six ground station communication channels per area. That is, a carrier must apply for one ground station communication channel, receive the authorization, construct the station, and notify the FCC of commencement of service before applying for an additional ground station communication channel in that area.

(a) **Air-ground transmitters in same area.** Any transmitter on any of the ground station channels listed in §22.805 is considered to be in the same area as another transmitter on any ground station channel listed in §22.805 if it is located less than 350 kilometers (217 miles) from that transmitter.