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to 5 watts ERP for each authorized frequency that the booster is designed to amplify.

- (c) Class A narrowband boosters must meet the out-of-band emission limits of §90.210 for each narrowband channel that the booster is designed to amplify. Class B broadband signal boosters must meet the emission limits of §90.210 for frequencies outside of the booster's designed passband.
- (d) Class B broadband signal boosters are permitted to be used only in confined or indoor areas such as buildings, tunnels, underground areas, etc., or in remote areas, i.e., areas where there is little or no risk of interference to other users.
- (e) The licensee is given authority to operate signal boosters without separate authorization from the Commission. Certificated equipment must be employed and the licensee must ensure that all applicable rule requirements are met.
- (f) Licensees employing either Class A narrowband or Class B broadband signal boosters as defined in §90.7 are responsible for correcting any harmful interference that the equipment may cause to other systems. Normal cochannel transmissions will not be considered as harmful interference. Licensees will be required to resolve interference problems pursuant to §90.173(b).

[61 FR 31052, June 19, 1996, as amended at 63 FR 36610, July 7, 1998; 72 FR 35195, June 27, 2007]

## Subpart J—Non-Voice and Other Specialized Operations

### § 90.231 Scope.

This subpart sets forth requirements and standards for licensing and operation of non-voice and other specialized radio uses (other than radiolocation). Such uses include secondary signaling, telemetry, radioteleprinter, radiofacsimile, automatic vehicle monitoring (AVM), radio call box, relay, vehicular repeater, and control station operations.

## § 90.233 Base/mobile non-voice operations.

The use of A1D, A2D, F1D, F2D, G1D, or G2D emission may be authorized to

base/mobile operations in accordance with the following limitations and requirements.

- (a) Licensees employing non-voice communications are not relieved of their responsibility to cooperate in the shared use of land mobile radio channels. See also §§ 90.403 and 90.173(a) and (b).
- (b) Authorization for non-voice emission may be granted only on frequencies subject to the coordination requirements set forth in §90.175. Non-voice operations on frequencies not subject to these requirements are permitted only a secondary basis to voice communications.
- (c) Provisions of this section do not apply to authorizations for paging, telemetry, radiolocation, automatic vehicle monitoring systems (AVM), radioteleprinter, radio call box operations, or authorizations granted pursuant to subpart T of this part.

[48 FR 2794, Feb. 3, 1983, as amended at 49 FR 48711, Dec. 14, 1984; 56 FR 19602, Apr. 29, 1991; 72 FR 35195, June 27, 2007]

## § 90.235 Secondary fixed signaling operations.

Fixed operations may, subject to the following conditions, be authorized on a secondary basis for voice, tone or impulse signaling on a licensee's mobile service frequency(ies) above 25 MHz within the area normally covered by the licensee's mobile system. Voice signaling will be permitted only in the Public Safety Pool.

- (a) The bandwidth shall not exceed that authorized to the licensee for the primary operations on the frequency concerned.
- (b) The output power shall not exceed 30 watts at the remote site.
- (c) A1D, A2D, F1D, F2D, G1D and G2D emissions may be authorized. In the Police Radio Service, A3E, F1E, F2E, F3E, G1E, G2E, or G3E emissions may also be authorized.
- (d) Except for those systems covered under paragraph (e) of this section, the maximum duration of any non-voice signaling transmission shall not exceed 2 seconds and shall not be repeated more than 3 times. Signaling transmissions may be staggered at any interval or may be continuous. In the

Public Safety Pool, the maximum duration of any voice signaling transmission shall not exceed 6 seconds and shall not be repeated more than 3 times.

- (e) Until December 31, 1999, for systems in the Public Safety Pool authorized prior to June 20, 1975, and Power and Petroleum licensees as defined in §90.7 authorized prior to June 1, 1976, the maximum duration of any signaling transmission shall not exceed 6 seconds and shall not be repeated more than 5 times. For Power licensees authorized between June 1, 1976, and August 14, 1989, signaling duration shall not exceed 2 seconds and shall not be repeated more than 5 times. Such systems include existing facilities and additional facilities which may be authorized as a clear and direct expansion of existing facilities. After December 31, 1999, all signaling systems shall be required to comply with the 2 second message duration and 3 message repetition requirements.
- (f) Systems employing automatic interrogation shall be limited to nonvoice techniques and shall not be activated for this purpose more than 10 seconds out of any 60 second period. This 10 second timeframe includes both transmit and response times.
- (g) Automatic means shall be provided to deactivate the transmitter in the event the r.f. carrier remains on for a period in excess of 3 minutes or if a transmission for the same signaling function is repeated consecutively more than five times.
- (h) Fixed stations authorized pursuant to the provisions of this section are exempt from the requirements of §§ 90.137(b), 90.425, and 90.429.
- (i) Base, mobile, or mobile relay stations may transmit secondary signaling transmissions to receivers at fixed locations subject to the conditions set forth in this section.
- (j) Under the provisions of this section, a mobile service frequency may not be used exclusively for secondary signaling.
- (k) The use of secondary signaling will not be considered in whole or in part as a justification for authorizing additional frequencies in a licensee's land mobile radio system.

(1) Secondary fixed signaling operations conducted in accordance with the provisions of §\$90.317(a) or 90.637 are exempt from the foregoing provisions of this section.

[54 FR 28679, July 7, 1989, as amended at 57 FR 34693, Aug. 6, 1992; 58 FR 30996, May 28, 1993; 60 FR 50123, Sept. 28, 1995; 62 FR 18927, Apr. 17, 1997; 72 FR 35195, June 27, 2007; 72 FR 44424, Aug. 8, 2007]

# § 90.237 Interim provisions for operation of radioteleprinter and radiofacsimile devices.

These provisions authorize and govern the use of radioteleprinter and radiofacsimile devices for base station use (other than on mobile-only or paging-only frequencies) in all radio pools and services except Radiolocation in this part.

(a) Information must be submitted with an application to establish that the minimum separation between a radioteleprinter proposed orradiofacsimile base station and the nearest co-channel base station of another licensee operating a voice system is 120 km (75 mi) for a single frequency mode of operation, or 56 km (35 mi) for two frequency mode of operation. Where this minimum mileage separation cannot be achieved, either agreement to the use of F1B, F2B, F3C, G1B, G2B or G3C emission must be received from all existing co-channel licensees using voice emission within the applicable mileage limits, or if agreement was not received, the licensee of the radioteleprinter or radiofacsimile system is responsible for eliminating any interference with preexisting voice operations. New licensees of voice operations will be expected to share equally any frequency occupied by established radioteleprinter or radiofacsimile operations.

#### (b) [Reserved]

(c) Transmitters certificated under this part for use of G3E or F3E emission may also be used for F1B, F2B, F3C, G1B, G2B or G3C emission for radioteleprinter or radiofacsimile, provided the keying signal is passed through the low pass audio frequency filter required for G3E or F3E emission. The transmitter must be so adjusted and operated that the instantaneous frequency deviation does not exceed