

§ 22.853

COMMERCIAL AVIATION AIR-GROUND SYSTEMS

§ 22.853 Eligibility to hold interest in licenses limited to 3 MHz of spectrum.

No individual or entity may hold, directly or indirectly, a controlling interest in licenses authorizing the use of more than three megahertz of spectrum (either shared or exclusive) in the 800 MHz commercial aviation Air-Ground Radiotelephone Service frequency bands (see § 22.857). Individuals and entities with either *de jure* or *de facto* control of a licensee in these bands will be considered to have a controlling interest in its license(s). For purposes of this rule, the definitions of “controlling interests” and “affiliate” set forth in paragraphs (c)(2) and (c)(5) of § 1.2110 of this chapter shall apply.

[70 FR 19310, Apr. 13, 2005]

§ 22.857 Channel plan for commercial aviation air-ground systems.

The 849–851 MHz and 894–896 MHz frequency bands are designated for paired nationwide exclusive assignment to the licensee or licensees of systems providing radio telecommunications service, including voice and/or data service, to persons on board aircraft. Air-ground systems operating in these frequency bands are referred to in this part as “commercial aviation” systems.

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§ 22.859 Incumbent commercial aviation air-ground systems.

This section contains rules concerning continued operation of commercial aviation air-ground systems that were originally authorized prior to January 1, 2004 to provide radiotelephone service using narrowband (6 kHz) channels, and that have been providing service continuously since the original commencement of service (hereinafter “incumbent systems”).

(a) An incumbent system may continue to operate under its authorization, for the remaining term of such authorization, subject to the terms and conditions attached thereto. Wherever such technical and operational conditions differ from technical and oper-

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ational rules in this subpart, those conditions shall govern its operations.

(b) Notwithstanding any other provision in this chapter, the licensee of an incumbent system shall not be entitled to an expectation of renewal of said authorization.

(c) During the period that an incumbent system continues to operate and provide service pursuant to paragraph (a) of this section, air-ground systems of licensees holding a new authorization for the spectrum within which the incumbent system operates must not cause interference to the incumbent system. Protection from interference requires that the signals of the new systems must not exceed a ground station received power of –130 dBm within a 6 kHz receive bandwidth, calculated assuming a 0 dBi vertically polarized receive antenna.

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§ 22.861 Emission limitations.

The rules in this section govern the spectral characteristics of emissions for commercial aviation systems in the Air-Ground Radiotelephone Service. Commercial aviation air-ground systems may use any type of emission or technology that complies with the technical rules in this subpart.

(a) *Out of band emissions.* The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB.

(b) *Measurement procedure.* Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (*i.e.*, 100 kHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency