

Federal Communications Commission

§ 27.1134

the affiliates of its controlling interests, has average gross revenues not exceeding \$40 million for the preceding three (3) years.

(2) A very small business is an entity that, together with its affiliates, its controlling interests, and the affiliates of its controlling interests, has average gross revenues not exceeding \$15 million for the preceding three (3) years.

(b) *Bidding credits.* A winning bidder that qualifies as a small business as defined in this section or a consortium of small businesses may use the bidding credit specified in § 1.2110(f)(2)(iii) of this chapter. A winning bidder that qualifies as a very small business as defined in this section or a consortium of very small businesses may use the bidding credit specified in § 1.2110(f)(2)(ii) of this chapter.

[79 FR 32413, June 4, 2014, as amended at 80 FR 56816, Sept. 18, 2015]

RELOCATION OF INCUMBENTS

§ 27.1111 Relocation of fixed microwave service licensees in the 2110–2150 and 2160–2200 MHz bands.

Part 22, subpart E and part 101, subpart B of this chapter contain provisions governing the relocation of incumbent fixed microwave service licensees in the 2110–2150 MHz and 2160–2200 MHz bands.

[79 FR 32414, June 4, 2014]

PROTECTION OF INCUMBENT OPERATIONS

§ 27.1131 Protection of part 101 operations.

All AWS licensees, prior to initiating operations from any base or fixed station, must coordinate their frequency usage with co-channel and adjacent-channel incumbent, 47 CFR part 101 fixed-point-to-point microwave licensees operating in the 2110–2150 MHz and 2160–2200 MHz bands. Coordination shall be conducted in accordance with the provisions of § 24.237 of this chapter.

[79 FR 32414, June 4, 2014]

§ 27.1132 Protection of incumbent operations in the 2150–2160/62 MHz band.

All AWS licensees, prior to initiating operations from any base or fixed sta-

tion in the 2110–2180 MHz band, shall follow the provisions of § 27.1255.

[79 FR 32414, June 4, 2014]

§ 27.1133 Protection of part 74 and part 78 operations.

AWS operators must protect previously licensed Broadcast Auxiliary Service (BAS) or Cable Television Radio Service (CARS) operations in the adjacent 2025–2110 MHz band. In satisfying this requirement AWS licensees must, before constructing and operating any base or fixed station, determine the location and licensee of all BAS or CARS stations authorized in their area of operation, and coordinate their planned stations with those licensees. In the event that mutually satisfactory coordination agreements cannot be reached, licensees may seek the assistance of the Commission, and the Commission may, at its discretion, impose requirements on one or both parties.

§ 27.1134 Protection of Federal Government operations.

(a) *Protection of Department of Defense operations in the 1710–1755 MHz band.* The Department of Defense (DoD) operates communications systems in the 1710–1755 MHz band at 16 protected facilities, nationwide. AWS licensees must accept any interference received from these facilities and must protect the facilities from interference. AWS licensees shall protect the facilities from interference by restricting the operation of their base and fixed stations from any locations that could potentially permit AWS mobile, fixed, and portable stations transmitting in the 1710–1755 MHz band to cause interference to government operations within the radii of operation of the 16 facilities (the radii of operation of each facility is indicated in the third column of Table 1 immediately following paragraph (a)(3) of this section). In addition, AWS licensees shall be required to coordinate any operations that could permit mobile, fixed, and portable stations to operate in the specified areas of the 16 facilities, as defined in paragraph (a)(3) of this section. Protection of these facilities in this manner shall take place under the following conditions:

(1) At the Yuma, Arizona and Cherry Point, North Carolina facilities, all operations shall be protected indefinitely.

(2) At the remaining 14 facilities, airborne and military test range operations shall be protected until such time as these systems are relocated to other spectrum, and precision guided munitions (PGM) operations shall be protected until such time as these systems are relocated to other spectrum or until PGM inventory at each facility is exhausted, whichever occurs first.

(3) AWS licensees whose transmit operations in the 1710–1755 MHz band consist of fixed or mobile operations with nominal transmit EIRP values of 100 mW or less and antenna heights of 1.6

meters above ground or less shall coordinate their services around the 16 sites at the distance specified in row a. of Table 2. AWS licensees whose transmit operations in the 1710–1755 MHz band consist of fixed or mobile operations with nominal transmit EIRP values of 1 W or less and antenna heights of 10 meters above ground or less shall coordinate their services around the 16 sites at the distance specified in row b. of Table 2. These coordination distances shall be measured from the edge of the operational distances indicated in the third column of Table 1, and coordination with each affected DoD facility shall be accomplished through the Commander of the facility.

TABLE 1—PROTECTED DEPARTMENT OF DEFENSE FACILITIES

Location	Coordinates	Radius of operation (km)
Cherry Point, NC	34°58' N, 076°56' W	100
Yuma, AZ	32°32' N, 113°58' W	120
China Lake, CA	35°41' N, 117°41' W	120
Eglin AFB, FL	30°29' N, 086°31' W	120
Pacific Missile Test Range/Point Mugu, CA	34°07' N, 119°30' W	80
Nellis AFB, NV	36°14' N, 115°02' W	160
Hill AFB, UT	41°07' N, 111°58' W	160
Patuxent River, MD	38°17' N, 076°25' W	80
White Sands Missile Range, NM	33°00' N, 106°30' W	80
Fort Irwin, CA	35°16' N, 116°41' W	50
Fort Rucker, AL	31°13' N, 085°49' W	50
Fort Bragg, NC	35°09' N, 079°01' W	50
Fort Campbell, KY	36°41' N, 087°28' W	50
Fort Lewis, WA	47°05' N, 122°36' W	50
Fort Benning, GA	32°22' N, 084°56' W	50
Fort Stewart, GA	31°52' N, 081°37' W	50

TABLE 2—COORDINATION DISTANCES FOR THE PROTECTED DEPARTMENT OF DEFENSE FACILITIES

1710–1755 MHz transmit operations	Coordination distance (km)
a. EIRP ≤100 mW, antenna height ≤1.6 m AG	35
b. EIRP ≤1 W, antenna height ≤10 m AG	55

(b) *Protection of non-DoD operations in the 1710–1755 MHz and 1755–1761 MHz bands.* Until such time as non-DoD systems operating in the 1710–1755 MHz and 1755–1761 MHz bands are relocated to other spectrum, AWS licensees shall protect such systems by satisfying the appropriate provisions of TIA Telecommunications Systems Bulletin 10–F, “Interference Criteria for Microwave Systems,” May, 1994 (TSB 10–F).

(c) *Protection of Federal operations in the 1675–1710 MHz band—(1) 27 Protection Zones.* Within 27 Protection Zones, prior to operating a base station that enables mobile or portable stations to transmit in the 1695–1710 MHz band, licensees must successfully coordinate such base station operations with Federal Government entities operating meteorological satellite Earth-station receivers in the 1675–1710 MHz band. See 47 CFR 2.106, footnote US 88, for

the 27 Protection Zones and other details.

(2) *Operation outside of 27 Protection Zones.* Non-Federal operations, for mobile and portable stations operating at a maximum EIRP of 20 dBm, are permitted outside of the protection zones without coordination. All non-Federal operations for mobile and portables operating at a maximum EIRP of greater than 20 dBm and up to 30 dBm must be coordinated nationwide. All such operations may not cause harmful interference to the Federal operations protected in 47 CFR 2.106, footnote US 88.

(3) *Interference.* If protected Federal operations receive harmful interference from AWS operations in the 1695–1710 MHz band, an AWS licensee must, upon notification, modify its operations and/or technical parameters as necessary to eliminate the interference.

(4) *Point of contact.* AWS licensees in the 1695–1710 MHz band must provide and maintain a point of contact at all times so that immediate contact can be made should interference against protected Federal sites occur.

(5) *Coordination procedures.* Federal use of the radio spectrum is generally governed by the National Telecommunications and Information Administration (NTIA) while non-Federal use is governed by the Commission. As such, any guidance or details con-

cerning Federal/non-Federal coordination must be issued jointly by NTIA and the Commission. The Commission may jointly issue with NTIA one or more public notices with guidance or details concerning the coordination procedures for the 1695–1710 MHz band.

(6) *Requirements for licensees operating in the 1710–1755 MHz band.* AWS licensees operating fixed stations in the 1710–1755 MHz band, if notified that such stations are causing interference to radiosonde receivers operating in the Meteorological Aids Service in the 1675–1700 MHz band or a meteorological-satellite earth receiver operating in the Meteorological-Satellite Service in the 1675–1710 MHz band, shall be required to modify the stations' location and/or technical parameters as necessary to eliminate the interference.

(d) *Recognition of NASA Goldstone facility operations in the 2110–2120 MHz band.* The National Aeronautics and Space Administration (NASA) operates the Deep Space Network (DSN) in the 2110–2120 MHz band at Goldstone, California (see Table 3). NASA will continue its operations of high power transmitters (nominal EIRP of 105.5 dBW with EIRP up to 119.5 dBW used under emergency conditions) in this band at this location. AWS licensees must accept any interference received from the Goldstone DSN facility in this band.

TABLE 3—LOCATION OF THE NASA GOLDSTONE DEEP SPACE FACILITY

Location	Coordinates	Maximum transmitter output power
Goldstone, California	35°18' N 116°54' W	500 kW

(e) *Protection of Federal operations in the 2200–2290 MHz band—(1) Default emission limits.* Except as provided in paragraph (e)(2) of this section, the following default out-of-band emissions limits shall apply for AWS-4 operations in the 2180–2200 MHz band.

(i) For these AWS-4 operations, the power of any emissions on all frequencies between 2200 and 2290 MHz shall not exceed an EIRP of –100.6 dBW/4 kHz.

(ii) No AWS-4 base station operating in the 2180–2200 MHz band shall be lo-

cated less than 820 meters from a U.S. Earth Station facility operating in the 2200–2290 MHz band.

(2) *Agreements between AWS-4 operators and Federal government entities.* The out-of-band emissions limits in paragraph (e)(1) of this section may be modified by the private contractual agreement of licensees of AWS-4 operating authority and Federal government entities operating in the 2200–2290 MHz band. Such agreement shall be transmitted to the Commission by the

National Telecommunications and Information Administration (NTIA) of the U.S. Department of Commerce. A licensee of AWS-4 operating authority who is a party to such an agreement must maintain a copy of the agreement in its station files and disclose it, upon request, to prospective AWS-4 assignees, transferees, or spectrum lessees, to Federal operators, and to the Commission.

(f) *Protection of Federal operations in the 1755–1780 MHz band.* The Federal Government operates communications systems in the 1755–1780 MHz band. Certain systems are expected to continue to operate in the band indefinitely. All other operations will be relocating to other frequencies or otherwise cease operations in the 1755–1780 MHz band in accordance with 47 CFR part 301. Until such a time as Federal operations in the 1755–1780 MHz bands vacate this spectrum, AWS licensees shall protect such systems and must accept any interference received from these Federal operations. See 47 CFR 2.106, footnote US 91, for details. AWS licensees must successfully coordinate proposed operations with all Federal incumbents prior to operation as follows:

(1) *Protection Zone(s).* A protection zone is established for each Federal operation pursuant to 47 CFR 2.106, footnote US 91. Unless otherwise specified in later Commission actions, the default protection zone is nationwide. A base station which enables mobile or portable stations to transmit in the 1755–1780 MHz band may not operate within the Protection Zone(s) of a Federal operation until the licensee successfully coordinates such base station operations with Federal Government entities as follows depending on the type of Federal incumbent authorization:

(i) *Federal US&P Assignments.* Each AWS licensee must coordinate with each Federal agency that has U.S. and Possessions (US&P) authority prior to its first operations in its licensed area to reach a coordination arrangement with each US&P agency on an operator-to-operator basis. (Agencies with U.S. and Possessions (US&P) authority do not operate nationwide and may be able to share, prior to relocation, in some areas.)

(ii) *Other Federal Assignments.* Each AWS licensee must successfully coordinate all base station operations within a Protection Zone with the Federal incumbents. The default requirement is a nationwide coordination zone with possible revisions to the Protection Zone and other details to be announced in a Joint FCC/NTIA public notice.

(2) *Interference.* If protected Federal operations receive harmful interference from AWS operations in the 1755–1780 MHz band, an AWS licensee must, upon notification, modify its operations and/or technical parameters as necessary to eliminate the interference.

(3) *Point of contact.* AWS licensees in the 1755–1780 MHz band must provide and maintain a point of contact at all times so that immediate contact can be made should interference against protected Federal operations occur.

(4) *Coordination procedures.* Federal use of the radio spectrum is generally governed by the National Telecommunications and Information Administration (NTIA) while non-Federal use is governed by the Commission. As such, any guidance or details concerning Federal/non-Federal coordination must be issued jointly by NTIA and the Commission. The Commission may jointly issue with NTIA one or more public notices with guidance or details concerning the coordination procedures for the 1755–1780 MHz band.

[69 FR 5716, Feb. 6, 2004, as amended at 73 FR 50571, Aug. 27, 2008; 78 FR 8270, Jan. 5, 2013; 79 FR 32414, June 4, 2014]

§ 27.1135 Protection of non-Federal Government Meteorological-Satellite operations.

AWS licensees operating fixed stations in the 1710–1755 MHz band, if notified that such stations are causing interference to meteorological-satellite earth receivers operating in the Meteorological-Satellite Service in the 1675–1710 MHz band, shall be required to modify the stations' location and/or technical parameters as necessary to eliminate the interference.