

(3) Provides an explanation of the licensee's record of expansion, including a timetable of the construction of new facilities to meet changes in demand for services provided by the licensee; and (4) Provides a description of investments made by the licensee in its system.

(b) In determining whether a renewal applicant has complied with the "substantial service" requirement by the end of the ten-year initial license term, the Commission may consider factors such as:

(1) Whether the licensee is offering a specialized or technologically sophisticated service that does not require a high level of coverage to be of benefit to customers; and

(2) Whether the licensee's operations service niche markets or focus on serving populations outside of areas served by other licensees. The "substantial service" requirement can, however, be met in other ways, and the Commission will review each licensee's showing on a case-by-case basis.

(c) A "substantial service" assessment will be made at renewal pursuant to the procedures contained in §1.949 of this chapter.

EFFECTIVE DATE NOTE: At 65 FR 17450, Apr. 3, 2000, subpart O, consisting of §§101.1301-101.1333 was added. Section 101.1327 contains an information collection requirement that is not effective until it has been approved by the Office of Management and Budget.

§ 101.1329 EA Station license, location, modifications.

EA licensees may construct master and remote stations anywhere inside the area authorized in their licenses, without prior approval, so long as the Commission's technical and other Rules are complied with, except that individual licenses are required for any master station that:

(a) Requires the submission of an environmental assessment under §1.1307 of this chapter;

(b) Requires international coordination; or

(c) Would affect the radio frequency quiet zones described in §1.924 of this chapter.

§ 101.1331 Treatment of incumbents.

(a) Any MAS station licensed by the Commission prior to July 1, 1999 in the 928.0-928.85 MHz/952.0-952.85 MHz/956.25-956.45 MHz and 928.85-929.0 MHz/959.85-960.0 MHz bands, as well as assignments or transfers of such stations approved by the Commission and consummated as of January 19, 2000, shall be considered incumbent.

(b) Incumbent operators in the 928.0-928.85 MHz/952.0-952.85 MHz/956.25-956.45 MHz bands are grandfathered as of January 19, 2000, and may continue to operate and expand their systems pursuant to the interference protection and co-channel spacing criteria contained in §101.105.

(1) MAS operators are prohibited from acquiring additional frequencies in the 928.0-928.85 MHz/952.0-952.85 MHz/956.25-956.45 MHz bands and the 932.25625-932.49375 MHz/941.25625-941.49375 MHz bands for the purpose of expanding private carrier service and from changing the use of their frequencies in any manner that is inconsistent with this part. Refer to §101.147 for designated uses.

(2) Incumbent operators in the 928.0-928.85 MHz/952.0-952.85 MHz/956.25-956.45 MHz bands will include incumbents as defined in §101.1331(a), as well as, their transferees and/or assignees and the successors of the transferees and/or assignees and retain their grandfathered status, provided that the use of the MAS frequencies remains unchanged from that of the transferor and/or assignor of the license.

[65 FR 17450, Apr. 3, 2000 as amended at 66 FR 35111, July 3, 2001]

(c) Incumbent operators in the 928.85-929.0/959.85-960.0 MHz bands are grandfathered as of January 19, 2000, and may expand their systems provided that the signal level of the additional transmitter(s) does not increase the composite contour that occurs at a 40.2 kilometer (25-mile) radius from the center of each master station transmitter site. Incumbent operators and geographic area licensees may negotiate alternative criteria.

(d) The frequencies associated with incumbent authorizations in the 928/959 MHz bands that have cancelled automatically or otherwise been recovered

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by the Commission will automatically revert to the applicable EA licensee.

(e) The frequencies associated with incumbent authorizations in the 928/952/956 MHz bands that have cancelled automatically will revert to the Commission.

[65 FR 17450, Apr. 3, 2000, as amended at 66 FR 35111, July 3, 2001]

§ 101.1333 **Interference protection criteria.**

(a) *Frequency coordination.* All EA licensees are required to coordinate their frequency usage with co-channel adjacent area licensees and all other affected parties.

(b) EA licensees are prohibited from exceeding a signal strength of 40 dBμ/m at their service area boundaries, unless a higher signal strength is agreed to by all affected co-channel, adjacent area licensees.

(c) EA licensees are prohibited from exceeding a signal strength of 40 dBμV/m at incumbent licensees' 40.2 kilometer (25-mile) radius composite contour specified in § 101.1331(c).

(d) In general, licensees shall comply with the appropriate coordination

agreements between the United States and Canada and the United States and Mexico concerning cross-border sharing and use of the applicable MAS frequencies.

(1) *Canada—932.0–932.25 MHz and 941.0–941.25 MHz:*

(i) Within Lines A, B, C, and D, as defined in § 1.928(e) of this chapter, along the U.S./Canada border, U.S. stations operating in the 932.0–932.25 MHz and 941.0–941.25 MHz bands are on a secondary basis and may operate provided that they shall not transmit a power flux density (PFD) at the border greater than -100 dBW/m² nor -94 dBW/m², respectively. The U.S. has full use of the frequencies in these regions up to the border in the bands 932.25–932.50 MHz and 941.25–941.50 MHz, and Canadian stations may operate on a secondary basis provided they do not exceed the respective PFDs shown above. PFD can be determined using the following formula: PFD (dBW/m²) = 10 log [EIRP/4π(D²)], where EIRP is in watts, D is in meters, and the power is relative to an isotropic radiator. The technical parameters are also limited by tables 1 and 2:

TABLE 1—MAXIMUM RADIATED POWER

Class of station	Band MHz	Maximum EIRP		Maximum ERP ¹	
		Watts	dBW	Watts	dBW
Master	941.0–941.5	1000	30	600	27.8
Fixed Remote and Master	932.0–932.5	50	17	30	14.8

¹ Where ERP = EIRP/1.64.<

(ii) Maximum antenna height above average terrain for master stations operating at a maximum power shall not

exceed 150 meters. Above 150 meters, the power of master stations shall be in accordance with following table:

TABLE 2—ANTENNA HEIGHT—POWER REDUCTION TABLE

Antenna height above average terrain (meters)	EIRP		ERP	
	Watts	dBW	Watts	dBW
Above 305	200	23	120	20.8
Above 275 to 305	250	24	150	21.8
Above 245 to 275	315	25	190	22.8
Above 215 to 245	400	26	240	23.8
Above 180 to 215	500	27	300	24.8
Above 150 to 180	630	28	380	25.8

NOTE TO TABLE 2: This information is from the Arrangement between the Federal Communications Commission and the National Telecommunications and Information Administra-

tion of the United States of America, and Industry Canada concerning the use of the bands 932 to 935 MHz and 941 to 944 MHz along the United States-Canada border signed in 1994. This