(7) No transmitter will be certificated for use in the CB service if it is equipped with a frequency capability not listed in section 95.307 of this part, unless such transmitter is also certificated for use in another radio service for which the frequency capability is authorized and for which certification is also required (transmitters with frequency capability for the Amateur Radio Services and Military Affiliate Radio System will not be certificated).

(8) No transmitter will be certificated for use in the GMRS if it is equipped with a frequency capability not listed in section 95.103 of this part, unless such transmitter is also certificated for use in another radio service for which the frequency capability is authorized and for which certification is also required (transmitters with frequency capability for the Amateur Radio Services and Military Affiliate Radio System will not be certificated).

(9) All frequency determining circuitry (including crystals) and programming controls in each CB transmitter and in each GMRS transmitter must be internal to the transmitter and must not be accessible from the exterior of the transmitter operating panel or from the exterior of the transmitter enclosure.

(10) No add-on device, whether internal or external, the function of which is to extend the transmitting frequency capability of a CB transmitter beyond its original capability, shall be manufactured, sold or attached to any CB station transmitter.

(11) No transmitter will be certificated for use in MURS if it is equipped with a frequency capability not listed in section 95.803.

(f) Enclosures, Instruction Manuals, Disclosures.

(1) A user's instruction manual must be supplied with each Personal Radio Service transmitter marketed. *See* § 2.1033 of this chapter.

(2) The instruction manual must contain all information necessary for the proper installation and operation of the transmitter including:

(i) Instructions concerning all controls, adjustments and switches that may be operated or adjusted without resulting in a violation of the rule and;

(ii) Warnings concerning any adjustment that could result in a violation of the rules or that is recommended to be performed by or under the immediate supervision and responsibility of a person certified as technically qualified to perform transmitter maintenance and repair duties in the private land mobile services and fixed services by an organization or committee representative of users of those services.

(iii) Manufacturers of LPRS transmitters used for auditory assistance, health care assistance, and law enforcement tracking purposes must include with each transmitting device the following statement: "This transmitter is authorized by rule under the Low Power Radio Service (47 C.F.R. Part 95) and must not cause harmful interference to TV reception or to the United States Air Force Space Surveillance System operating in the 216.88-217.08 MHz band.You do not need an FCC license to operate this transmitter. This transmitter may only be used to provide: auditory assistance to persons with disabilities, persons who require language translation, or persons in educational settings; health care services to the ill; law enforcement tracking services under agreement with a law enforcement agency; or automated maritime telecommunications system (AMTS) network control communications. Two-way voice communications and all other types of uses not mentioned above are expressly prohibited."

(iv) Prior to operating a LPRS transmitter for AMTS purposes, an AMTS licensee must notify, in writing, each television station that may be affected by such operations, as defined in § 80.215(h) of this chapter. The notification provided with the station's license application is sufficient to satisfy this requirement if no new television stations would be affected.

(g) Labeling requirements.

(1) Each LPRS transmitting device shall bear the following statement in a conspicuous location on the

device: "This device may not interfere with TV reception or Federal Government radar."

(i) Where LPRS device is constructed in two or more sections connected by wire and marketed together, the statement specified in this section is required to be affixed only to the main control unit.

(ii) When the LPRS device is so small or for such use that it is not practicable to place the statement specified in the section on it, the statement must be placed in a prominent location in the instruction manual or pamphlet supplied to the user or, alternatively, shall be placed on the container in which the device is marketed.

(2) Additional information regarding certification and labeling of PLBs is set forth in § 95.907 of this chapter.

(3) WMTS. Each device shall be labeled with the following statement: "Operation of this equipment requires the prior coordination with a frequency coordinator designated by the FCC for the Wireless Medical Telemetry Service."

§ 95.35 Power.

(a) Use of a transmitter which has power (power output, EIRP, field strength, carrier or peak envelope power) in excess of that specified below voids your authority to operate the station.

(b) *GMRS.* (1) Except as provided for in paragraph (2), the maximum power permitted is as follows:

(i) GMRS base stations – 50 watts output power;

(ii) GMRS small base stations (operating on even numbered GMRS channels) – 5 watts output power;

(iii) GMRS fixed stations – 15 watts output power;

(iv) GMRS mobile stations (except portable/handheld units) – 50 watts output power; and

(v) GMRS portable/handheld units – 2 watts ERP.

(2) Any GMRS station located at a point north of Line A or east of Line C must transmit with no more than 5 watts ERP.

(c) *R/C.* Your R/C station transmitter power output must not exceed the following value under any conditions:

Channel (MHz)	Transmitter power (carrier power) Watts
27.255	25
26.995-27.195	4
72-76	0.75

(d) *CB.* Your CB station transmitter power output must not exceed the following values under any conditions: AM (A3)--4 watts (carrier power) SSB--12 watts (peak envelope power).

(e) *FRS.* Regardless of modulation, the power shall not exceed 0.5 watts ERP.

(f) *LPRS.* The maximum allowable ERP for a station in the LPRS other than an AMTS station is 100 mW. The maximum allowable ERP for an AMTS station in the LPRS is 1 W, so long as emissions are attenuated, in accordance with section 80.211 of this chapter, at the band edges.

(g) *WMTS.* The maximum field strength authorized for WMTS stations in the 608-614 MHz band is 200 mV/m, measured at 3 meters using measuring instrumentation with a CISPR quasi-peak detector. For stations in the 1395-1400 MHz and 1427-1429.5 MHz bands, the maximum field strength is 740 mV/m, measured at 3 meters using measuring equipment with an averaging detection and a 1 MHz measurement bandwidth.

(h) *MURS.* Regardless of modulation, the power shall not exceed 2 watts ERP.

(i) *PLB. See* § 95.907 of this chapter.

(j) *DSRCS-OBU.* DSRCS-OBUs are governed under subpart L of this part, except the maximum output power for portable DSRCS-OBUs is 1.0 mW. For purposes of this paragraph, a portable is a transmitting device designed to be used so that the radiating structure(s) of the device is/are within 20 centimeters of the body of the user.

§ 95.37 Frequency tolerance.

(a) GMRS. Each GMRS transmitter for mobile station, small base station and control station operation must be maintained within a frequency tolerance of 5 parts-per-million. Each GMRS transmitter for base station (except small base), mobile relay station or fixed station operation must be maintained within a frequency tolerance of 2.5 parts-per-million.

(b) *R/C.* (1) Each R/C transmitter that transmits in the 26-27 MHz frequency band with a mean transmitter power of 2.5 W or less and that is used solely by the operator to turn on and/or off a device at a remote location, other than a device used solely to attract attention, must be maintained within a frequency tolerance of 100 parts-per-million.

(2) All other R/C transmitters that transmit in the 26-27 MHz frequency band must be maintained within a frequency tolerance of 5 parts-per-million.

(3) Except as noted in paragraph (b)(4) of this section, R/C transmitters capable of operation in the 72-76 MHz band must be maintained within a frequency tolerance of 50 parts-per-million.

(4) All R/C transmitters capable of operation in the 72-76 MHz band that are manufactured in or imported into the United States, on or after March 1, 1992, or are marketed on or after March 1, 1993, must be maintained within a frequency tolerance of 20 parts-per-million.

(c) *CB.* Each CB transmitter must be maintained within a frequency tolerance of 50 parts-per-million.

(d) *FRS.* Each FRS transmitter must be maintained within a frequency tolerance of 2.5 parts-per-million.

(e) *LPRS.* LPRS transmitters operating on standard band (25 kHz) channels or extra band (50 kHz) channels must be maintained within a frequency stability of 50 parts-per-million. LPRS transmitters operating on narrowband (5 kHz) channels must be maintained within a frequency stability of 1.5 parts-per-million.

(f) WMTS Manufacturers of wireless medical telemetry devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all of the manufacturer's specified conditions.

(g) *MURS.* Each MURS transmitter must maintain a frequency tolerance of 5 parts-per-million, or 2 parts-per-million if designed to operate with a 6.25 kHz bandwidth.

(h) *PLB. See* § 95.907 of this chapter.

§ 95.39 Bandwidth limitations.

(a) *Authorized bandwidths (except as noted below).* The authorized bandwidth (maximum permissible bandwidth of a transmission) for emission type H1D, J1D, R1D, H3E, J3E or R3E is 4 kHz. The authorized bandwidth for emission type A1D or A3E is 8 kHz. The authorized bandwidth for emission type F1D, G1D, F3E or G3E is 20 kHz.

(b) *R/C bandwidths.* The authorized bandwidth for any emission type transmitted by an R/C transmitter is 8 kHz.

(c) *FRS bandwidths.* The authorized bandwidth for emission type F3E or F2D transmitted by a FRS unit is 12.25 kHz. Additional bandwidths for FRS are listed in (a) above.

(d) LPRS bandwidths:

(1) The authorized bandwidth for narrowband frequencies is 4 kHz and the channel bandwidth is 5 kHz.

(2) The channel bandwidth for standard band frequencies is 25 kHz.

(3) The channel bandwidth for extra band frequencies is 50 kHz.

(4) AMTS stations may use the 216.750-217.000 MHz band as a single 250 kHz channel so long as the signal is attenuated as specified in Sec. 95.41.

(e) MURS bandwidths.

(1) Emissions on frequencies 151.820 MHz, 151.880 MHz, and 151.940 MHz are limited to 11.25 kHz.

(2) Emissions on frequencies 154.570 and 154.600 MHz are limited to 20.0 kHz.

(3) Provided, however, that all A3E emissions are limited to 8 kHz.

(f) DSRCS-OBUs are governed under subpart L of this part.

§ 95.41 Unwanted emissions.

The requirements in this section apply to each transmitter both with and without the connection of permitted attachments, such as an external speaker, microphone, power cord and/or antenna.

(a) *Emission masks.* Emission masks applicable to transmitting equipment in the Personal Radio Services are defined by the requirements in the following table. The numbers in the attenuation requirements column refer to rule paragraph numbers under paragraph (b).

Radio Service (conditions)	Emission Types Filter	Attenuation Requirements
GMRS	A1D, A3E, F1D, G1D, F3E, G3E With audio filter	(1), (3), (7)
GMRS	A1D, A3E, F1D, G1D, F3E, G3E without audio filter	(5), (6), (7)
GMRS	H1D, J1D, R1D, H3E, J3E, R3E	(2), (4), (7)
FRS	F2D, F3E with filter	(1), (3), (7)
R/C (27 MHz)	Any permitted emission	(1), (3), (7)
R/C (72-76 MHz)	Any permitted emission	(1), (10), (11), (12)
CB	A1D, A3E	(1), (3), (8), (9)
CB	H1D, J1D, R1D, H3E, J3E, R3E	(2), (4), (8), (9)
MURS (151.820, 151.880, 151.940 MHz)	Any permitted emission type	(21), (22)
MURS (154.570 & 154.600 MHz)	Any permitted emission type, with filter	(1), (3), (7)
MURS (154.570 & 154.600 MHz)	Any permitted emission type, without filter	(5), (23), (7)
LPRS (narrow 5 kHz)	Any permitted emission type	(13), (14)
LPRS (standard 25 kHz)	Any permitted emission type	(15), (16)
LPRS (extra 50 kHz)	Any permitted emission type	(17), (18)
LPRS (AMTS 250 kHz)	Any permitted emission type	(19), (20)
MedRadio (402-405 MHz)	Any permitted emission type	(24), (25)
MedRadio (401-402 MHz and 405-406 MHz)	Any permitted emission type	(26), (27)

Note 1 -- Filtering noted for GMRS and FRS transmitters refers to the requirement in § 95.43.

Note 2 -- Unwanted emission power may be measured as either mean power or peak envelope power,

provided that the transmitter output power is measured the same way.

Note 3 -- Compliance with the attenuation requirements in paragraphs (b)(24) through (b)(27) of this section is based on the use of measurement instrumentation employing a peak detector function with an instrument resolution bandwidth approximately equal to 1.0 percent of the emission bandwidth of the device under measurement.

(b) *Attenuation requirements.* The power of unwanted emissions must be attenuated below the transmitter output power in Watts (P) by at least:

(1) 25 dB (decibels) on any frequency removed from the center of the authorized bandwidth by more than 50 % up to and including 100 % of the authorized bandwidth.

(2) 25 dB on any frequency removed from the center of the authorized bandwidth by more than 50 % up to and including 150 % of the authorized bandwidth.

(3) 35 dB on any frequency removed from the center of the authorized bandwidth by more than 100 % up to and including 250 % of the authorized bandwidth.

(4) 35 dB on any frequency removed from the center of the authorized bandwidth by more than 150 % up to and including 250 % of the authorized bandwidth.

(5) 83 log (f_d/5) dB on any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in kHz) of more than 5 kHz up to and including 10 kHz.

(6) 116 log (f_d/6.1) dB, or if less, 50 + 10 log (P) dB, on any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in kHz), of more than 10 kHz up to and including 250 % of the authorized bandwidth.

(7) 43 + 10 log (P) dB on any frequency removed from the center of the authorized bandwidth by more than 250 %.

(8) 53 + 10 log (P) dB on any frequency removed from the center of the authorized bandwidth by more than 250 %.

(9) 60 dB on any frequency twice or greater than twice the fundamental frequency.

(10) 45 dB on any frequency removed from the center of the authorized bandwidth by more than 100 % up to and including 125 % of the authorized bandwidth.

(11) 55 dB on any frequency removed from the center of the authorized bandwidth by more than 125 % up to and including 250 % of the authorized bandwidth.

(12) 56 + 10 log (P) dB on any frequency removed from the center of the authorized bandwidth by more than 250 %.

(13) 30 + 20(f_d - 2) dB, or 55 + 10 log (P) dB, or 65 dB, whichever is least, on any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in kHz) of more than 2 kHz up to and including 3.75 kHz.

(14) 55 + 10 log (P) dB on any frequency removed from the center of the authorized bandwidth by more than 3.75 kHz.

(15) 30 dB on any frequency removed from the channel center frequency by 12.5 kHz to 22.5 kHz.

(16) 43 + 10 log (P) dB on any frequency removed from the channel center frequency by more than 22.5 kHz.

(17) 30 dB on any frequency removed from the channel center frequency by 25 kHz to 35 kHz.

(18) 43 + 10 log (P) dB on any frequency removed from the channel center frequency by more than 35 kHz.

(19) 30 dB on any frequency removed from the channel center frequency by 125 kHz to 135 kHz.

(20) 43 + 10 log (P) dB on any frequency removed from the channel center frequency by more than 135 kHz.

(21) 7.27(f_d - 2.88 kHz) dB on any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in kHz) of more than 5.625 kHz but no more than 12.5 kHz.

(22) 50 + 10 log (P) dB or 70 dB, whichever is the lesser attenuation, on any frequency removed from the center of the authorized bandwidth by more than 12.5 kHz.

(23) 29 log ($f_d^2 \div 11$) dB or 50 dB, whichever is the lesser attenuation on any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in kHz) of more than 10 kHz, but not more than 250 percent of the authorized bandwidth.

(24) 20 dB, on any frequency within the 402–405 MHz MedRadio band that is more than 150 kHz away from the center frequency of the spectrum the transmission is intended to occupy.

(25) 20 dB, on any frequency between 401.750 MHz and 402.000 MHz, and on any frequency between 405 MHz and 405.250 MHz.

(26) 20 dB, on any frequency within the 401-402 MHz or 405-406 MHz MedRadio bands that is more than 50 kHz away from the center frequency of the spectrum the transmission is intended to occupy.

(27) 20 dB, on any frequency between 400.900 MHz and 401.000 MHz, and on any frequency between 406.000 MHz and 406.100 MHz.

(c) *Field strength limits for the WMTS.* The following field strength limits apply to WMTS transmitters.

(1) For WMTS transmitters, unwanted emissions on frequencies below 960 MHz are limited to 200 μV/m, measured at a distance of 3 meters using measuring instrumentation with a CISPR quasi-peak detector.

(2) For WMTS transmitters, unwanted emissions on frequencies above 960 MHz are limited to 500 μV/m, measured at a distance of 3 meters using measuring equipment with an averaging detector and a 1 MHz measurement bandwidth.

(d) *Field strength limits for the MedRadio service.* The field strength limits in the table in this paragraph apply to medical device transmitters, subject to the provisions in paragraphs (d)(1) through (d)(4) of this section.

Frequency (MHz)	Field strength (*u*V/m)	Measurement distance (m)
30-88	100	3
88-216	150	3
216-960	200	3
960 and above	500	3

Note—At band edges, the tighter limit applies.

(1) For medical device transmitters operating in the 402-405 MHz MedRadio band, emissions on frequencies below 401.750 MHz or above 405.250 MHz must not exceed the field strength limits in the table in paragraph (d) of this section.

(2) For medical device transmitters operating in the 401-402 MHz or 405-406 MHz MedRadio bands, emissions on frequencies below 400.900 MHz or above 406.000 MHz must not exceed the field strength limits in the table in paragraph (d) of this section.

(3) Compliance with the field strength limits shown in the table in paragraph (d) of this section is based on the use of measurement instrumentation employing a CISPR quasi-peak detector, except that, for emissions on frequencies above 1 GHz, compliance is based on the use of measurement instrumentation employing an average detector. For measurements of emissions on frequencies above 1 GHz, a minimum resolution bandwidth of 1 MHz must be used.

(4) The emissions from a medical device transmitter must be measured to at least the tenth harmonic of

the highest fundamental frequency designed to be emitted by the transmitter.

(e) *Harmful interference.* If harmonic or other spurious emissions result in harmful interference, the FCC may require appropriate technical changes in the station equipment to alleviate the interference, including the use of a low pass filter between the transmitter antenna terminals and the antenna feed line.

§ 95.43 Modulation standards.

(a) A GMRS transmitter that transmits emission types F1D, G1D, or G3E must not exceed a peak frequency deviation of plus or minus 5 kHz. A GMRS transmitter that transmits emission type F3E must not exceed a peak frequency deviation of plus or minus 5 kHz. A FRS unit that transmits emission type F3E must not exceed a peak frequency deviation of plus or minus 2.5 kHz, and the audio frequency response must not exceed 3.125 kHz.

(b) Each GMRS transmitter, except a mobile station transmitter with a power output of 2.5 W or less, must automatically prevent a greater than normal audio level from causing overmodulation. The transmitter also must include audio frequency low pass filtering, unless it complies with the applicable paragraphs of Sec. 95.41 (without filtering). The filter must be between the modulation limiter and the modulated stage of the transmitter. At any frequency (f in kHz) between 3 and 20 kHz, the filter must have an attenuation of at least 60 $\log_{10}$ (f/3) dB greater than the attenuation at 1 kHz. Above 20 kHz, it must have an attenuation of at least 50 dB greater than the attenuation at 1 kHz.

(c) When emission type A3E is transmitted, the modulation must be greater than 85 % but must not exceed 100 %. Simultaneous amplitude modulation and frequency or phase modulation of a transmitter are not permitted.

(d) When emission type A3E is transmitted by a CB transmitter having a transmitter output power of greater than 2.5 W, the CB transmitter must automatically prevent the modulation from exceeding 100 %.

(e) Each CB transmitter that transmits emission type H3E, J3E or R3E must be capable of transmitting the upper sideband. The capability of also transmitting the lower sideband is permitted.

(f) DSRCS-OBUs are governed under subpart L of this part.

§ 95.45 Antenna limits.

(a) GMRS

(1) Certain antenna structures used in a GMRS system and that are more than 60.96 m (200 ft) in height, or are located near or at a public-use airport, must be notified to the FAA and registered with the Commission as required by part 17 of this chapter.

(2) The antenna for a small base or control station must not be more than 6.1 meters (20 feet) above the ground or above the building or tree on which it is mounted. Each base station and each control station with an antenna height greater than 6.1 meters (20 feet) must be separately identified on Form 605.

(3) Any GMRS station licensed after [effective date of rules] and located north of Line A or east of Line C must have an antenna no more than 20 feet above ground or above the building or tree on which it is mounted.

(4) The antenna of handheld portable GRMS units must be an integral part of the transmitter. The antenna must have no gain (as compared to a half-wave dipole) and must be vertically polarized.

(b) R/C

(1) The antenna of each R/C station transmitting in the 72-76 MHz band must be an integral part of the transmitter. The antenna must have no gain (as compared to a half-wave dipole) and must be vertically polarized.

(2) For 27 MHz operation, if your antenna is mounted on a hand-held portable unit, none of the following limitations in (3) apply.

(3) For 27 MHz operation, if your antenna is installed at a fixed location, it (whether receiving, transmitting or both) then the highest point must not be more than 6.10 meters (20 feet) higher than the highest point of the building or tree on which it is mounted; or18.3 meters (60 feet) above the ground.

(4) If your R/C station is located near an airport, and if your antenna structure is more than 6.10 meters (20 feet) high, you may have to obey additional restrictions. The highest point of your antenna must not exceed one meter above the airport elevation for every hundred meters of distance from the nearest point of the nearest airport runway. Differences in ground elevation between your antenna and the airport runway may complicate this formula. If your R/C station is near an airport, you may contact the nearest FCC field office for a worksheet to help you figure the maximum allowable height of your antenna. Consult Part 17 of the FCC's Rules for more information.

(c) CB.

(1) If your antenna is mounted on a hand-held portable unit, none of the limitations in paragraph (c)(2) apply.

(2) If your antenna is installed at a fixed location, it (whether receiving, transmitting or both), then the highest point must not be more than 6.10 meters (20 feet) higher than the highest point of the building or tree on which it is mounted or 18.3 meters (60 feet) above the ground.

(3) If your CB station is located near an airport, and if your antenna structure is more than 6.1 meters (20 feet) high, you may have to obey additional restrictions. The highest point of your antenna must not exceed one meter above the airport elevation for every hundred meters of distance from the nearest point of the nearest airport runway. Differences in ground elevation between your antenna and the airport runway may complicate this formula. If your CB station is near an airport, you may contact the nearest FCC field office for a worksheet to help you figure the maximum allowable height of your antenna. Consult Part 17 of the FCC's Rules for more information.

(d) *FRS* The antenna of each FRS transmitter band must be an integral part of the transmitter. The antenna must have no gain (as compared to a half-wave dipole) and must be vertically polarized.

(e) *LPRS*

(1) AMTS stations must employ directional antennas.

(2) Antennas used with LPRS units must comply with the following:

(i) For LPRS units operating entirely within an enclosed structure, *e.g.*, a building, there is no limit on antenna height;

(ii) For LPRS units not operating entirely within an enclosed structure, the tip of the antenna shall not exceed 30.5 meters (100 feet) above ground. In cases where harmful interference occurs the FCC may require that the antenna height be reduced; and

(iii) The height limitation in paragraph (e)(2) of this section does not apply to LPRS units in which the antenna is an integral part of the unit.

(f) *MURS* The highest point of any MURS antenna must not be more than 18.3 meters (60 feet) above the ground or 6.10 meters (20 feet) above the highest point of the structure on which it is mounted.

§ 95.47 Telephone interconnection.

(a) Excepted as noted in (b), no station in the Personal Radio Services may be interconnected with the public switched network.

(b) Interconnection Defined. Connection through automatic or manual means of radio stations with the facilities of the public switched telephone network to permit the transmission of messages or signals between points in the wireline or radio network of a public telephone company and persons served by radio stations. Wireline or radio circuits or links furnished by common carriers, which are used by licensees or other authorized persons for transmitter control (including dial-up transmitter control circuits)

or as an integral part of an authorized, private, internal system of communication or as an integral part of dispatch point circuits in a radio station are not considered to be interconnection for purposes of this rule part.

§ 95.49 RF safety.

Portable devices as defined in §2.1093(b) of this chapter operating in the General Mobile Radio Service (GMRS), the Wireless Medical Telemetry Service (WMTS) and the Medical Device Radiocommunication Service (MedRadio) Subparts C, H and I of Part 95 of this chapter are subject to radio frequency radiation exposure requirements as specified in §§1.1307(b) and 2.1093 of this chapter. Applications for equipment authorization for these devices must contain a statement confirming compliance with these requirements. Technical information showing the basis for this statement must be submitted to the Commission upon request.

Subpart C – General Mobile Radio Service

§ 95.101 Scope.

This subpart contains the operating requirements for GMRS. General and technical information pertaining to this service is contained in Subparts A and B.

§ 95.103 Channels available.

(a) GMRS channels listed below in this section are available to GMRS licensees only on a shared basis and will not be assigned for the exclusive use of any licensee. All GMRS licensees must cooperate in the selection and use of channels, including limiting communications to the minimum practical time, to reduce interference and to make the most effective use of the facilities.

Channel No.	Center frequency (MHz)	Station class	Channel No.	Center frequency (MHz)	Station class
1	462.5500	Base or mobile	16	467.5500	Mobile[1]
2	462.5625	Sm Base or mobile[2]	17		
3	462.5750	Base or mobile	18	467.5750	Mobile[1]
4	462.5875	Sm Base or mobile[2]	19		
5	462.6000	Base or mobile	20	467.6000	Mobile[1]
6	462.6125	Sm Base or mobile[2]	21		
7	462.6250	Base or mobile	22	467.6250	Mobile[1]
8	462.6375	Sm Base or mobile[2]	23		
9	462.6500	Base or mobile	24	467.6500	Mobile[1]
10	462.6625	Sm Base or mobile[2]	25		
11	462.6750	Base or mobile	26	467.6750	Mobile[1]
12	462.6875	Sm Base or mobile[2]	27		
13	462.7000	Base or mobile	28	467.7000	Mobile[1]
14	462.7125	Sm Base or mobile[2]	29		
15	462.7250	Base or mobile	30	467.7250	Mobile[1]

[1] These channels may be used for fixed stations for controlling a repeater station.

[2] Except for a GMRS system licensed to a non-individual, a mobile station or a small base station operating in the simplex mode may transmit on these channels only under the following conditions: (a) Only voice type emissions may be transmitted; (b) The station does not transmit one-way pages; and (c) The station transmits with no more than 5 watts output power.

(b) Operators of GMRS systems suffering or causing harmful interference are expected to cooperate and resolve this problem by mutually satisfactory arrangements. If the operators are unable to do so, the FCC may impose restrictions including specifying the transmitter power, antenna height, or area or hours of operation of the stations concerned. Further, the use of any frequency at a given geographical location may be denied when, in the judgment of the FCC, its use in that location is not in the public interest; the

use of any channel or channel pair may be restricted as to specified geographical areas, maximum power, or other operating conditions.

§ 95.105 Permissible communications.

(a) You may use your GMRS station only to transmit two-way plain language voice communications concerning personal or business activities. Two-way plain language communications are communications without codes or coded messages. Operating signals such as "ten codes" are not considered codes or coded messages.

(b) One way paging is not permitted.

(c) Continuous or uninterrupted transmissions, except for communications involving the immediate safety of life or property, are prohibited.

(d) GMRS units may transmit digital data containing location information, or requesting location information from one or more other units within that service, or containing a brief text message to another specific unit. Digital data transmissions must be initiated by a manual action or command of a user, except that a GMRS unit receiving an interrogation request may automatically respond with its location. Digital data transmissions shall not exceed one second, and shall be limited to no more than one digital transmission within a thirty-second period, except that a unit may automatically respond to more than one interrogation request received within a thirty-second period.

Subpart D – Radio Control (R/C) Radio Service

§ 95.201 Scope.

This subpart contains the operating requirements for the R/C Service. General and technical information pertaining to this service is contained in subparts A and B of this part.

§ 95.203 Channels available.

(a) Your R/C station may transmit only on the following channels (frequencies):

(1) The following channels may be used to operate any kind of device (any object or apparatus, except an R/C transmitter), including a model aircraft device (any small imitation of an aircraft) or a model surface craft device (any small imitation of a boat, car or vehicle for carrying people or objects, except aircraft): 26.995, 27.045, 27.095, 27.145, 27.195 and 27.255 MHz.

(2) The following channels may only be used to operate a model aircraft device:

Ch No.	Frequency (MHz)	Ch No.	Frequency (MHz)	Ch No.	Frequency (MHz)	Ch No.	Frequency (MHz)	Ch No.	Frequency (MHz)
1	72.01	11	72.21	21	72.41	31	72.61	41	72.81
2	72.03	12	72.23	22	72.43	32	72.63	42	72.83
3	72.05	13	72.25	23	72.45	33	72.65	43	72.85
4	72.07	14	72.27	24	72.47	34	72.67	44	72.87
5	72.09	15	72.29	25	72.49	35	72.69	45	72.89
6	72.11	16	72.31	26	72.51	36	72.71	46	72.91
7	72.13	17	72.33	27	72.53	37	72.73	47	72.93
8	72.15	18	72.35	28	72.55	38	72.75	48	72.95
9	72.17	19	72.37	29	72.57	39	72.77	49	72.97
10	72.19	20	72.39	30	72.59	40	72.79	50	72.99

(3) The following channels may only be used to operate model surface craft devices:

Ch No.	Frequency (MHz)	Ch No.	Frequency (MHz)	Ch No.	Frequency (MHz)	Ch No.	Frequency (MHz)	Ch No.	Frequency (MHz)
51	75.41	57	75.53	63	75.65	69	75.77	75	75.89

52	75.43	58	75.55	64	75.67	70	75.79	76	75.91
53	75.45	59	75.57	65	75.69	71	75.81	77	75.93
54	75.47	60	75.59	66	75.71	72	75.83	78	75.95
55	75.49	61	75.61	67	75.73	73	75.85	79	75.97
56	75.51	62	75.63	68	75.75	74	75.87	80	75.99

(b) R/C channels are available only on a shared basis and will not be assigned for the exclusive use of any user. All R/C users must cooperate in the selection and use of channels, including limiting communications to the minimum practical time, to reduce interference and to make the most effective use of the facilities.

(c) Your R/C station may not transmit simultaneously on more than one channel in the 72-76 MHz band when your operation would cause harmful interference to the operation of other R/C stations.

(d) Your R/C station must stop transmitting if it interferes with:

(1) Authorized radio operations in the 72-76 MHz band; or

(2) Television reception on TV Channels 4 or 5.

(e) Stations in the 26-27 MHz range are not afforded any protection from interference caused by the operation of industrial, scientific of medical devices. Such stations also operate on a shared basis with other stations in the Personal Radio Services.

(f) Stations in the 72-76 MHz range are subject to the condition that interference will not be caused to the remote control of industrial equipment operating on the same or adjacent frequencies. These frequencies are not afforded any protection from interference due to the operation of fixed and mobile stations in other services assigned to the same or adjacent frequencies.

§ 95.207 Permissible communications.

(a) You may only use your R/C station to transmit one-way communications. (One-way communications are transmissions which are not intended to establish communications with another station.)

(b) You may only use your R/C station for the following purposes:

(1) The operator turns on and/or off a device at a remote location; or

(2) A sensor at a remote location turns on and/off an indicating device for the operator. Only frequencies 26.995 to 27.255 MHz may be used for this purpose. (A remote location means a place distant from the operator).

(c) You must not use a R/C station to transmit data. Tone or other signal encoding, however, is not considered to be data when only used either for the purpose of identifying the specific device among multiple devices that the operator intends to turn on/off, or the specific sensor among multiple sensors intended to turn on/off an indicating device for the operator.

§ 95.209 Special restrictions on the location of R/C stations.

(a) If your R/C station is located on premises controlled by the Department of Defense, you may be required to comply with additional regulations imposed by the commanding officer of the installation.

(b) If your R/C station will be constructed on an environmental sensitive site, or will be operated in such a manner as to raise environmental problems, under Sec. 1.1307 of this chapter, you must provide an environmental assessment, as set forth in Sec. 1.1311 of this chapter, and undergo environmental review Sec. 1.1312 of this chapter, before commencement of construction.

(c) Anyone intending to operate an R/C station on the islands of Puerto Rico, Desecheo, Mona, Vieques, and Culebra in a manner that could pose an interference threat to the Arecibo Observatory shall notify the Interference Office, Arecibo Observatory, HC3 Box 53995, Arecibo, Puerto Rico 00612, in writing or

electronically, of the location of the unit. Operators may wish to consult interference guidelines, which will be provided by Cornell University. Operators who choose to transmit information electronically should e-mail to: prcz@naic.edu.

(1) The notification to the Interference Office, Arecibo Observatory shall be made 45 days prior to commencing operation of the unit. The notification shall state the geographical coordinates of the unit.

(2) After receipt of such notifications, the Commission will allow the Arecibo Observatory a period of 20 days for comments or objections. The operator will be required to make reasonable efforts in order to resolve or mitigate any potential interference problem with the Arecibo Observatory. If the Commission determines that an operator has satisfied its responsibility to make reasonable efforts to protect the Observatory from interference, the unit may be allowed to operate.

§ 95.211 Operation by remote control.

(a) You may not operate an R/C transmitter by radio remote control.

(b) You may operate an R/C transmitter by wireline remote control if you obtain specific approval in writing from the FCC. To obtain FCC approval, you must show why you need to operate your station by wireline remote control. If you receive FCC approval, you must keep the approval as part of your station records. See R/C Rule 24, Sec. 95.224.

(c) Remote control means operation of an R/C transmitter from any place other than the location of the R/C transmitter. Direct mechanical control or direct electrical control by wire from some point on the same premises, craft or vehicles as the R/C transmitter is not considered remote control.

Subpart E – Citizens Band (CB) Radio Service

§ 95.301 Scope.

This subpart contains the operating requirements for the CB Radio Service. Other general and technical information and requirements pertaining to this service are also contained in Subparts A and B under this Part.

§ 95.303 Am I eligible to operate a CB station?

You are authorized to operate a CB station unless:

(a) You are a foreign government, a representative of a foreign government, or a federal government agency; or

(b) The FCC has issued a cease and desist order to you, and the order is still in effect.

§ 95.305 Are there any special restrictions on the location of my CB station?

(a) If your CB station is located on premises controlled by the Department of Defense you may be required to comply with additional regulations imposed by the commanding officer of the installation.

(b) If your C/B station will be constructed on an environmentally sensitive site, or will be operated in such a manner as to raise environmental problems, under Sec. 1.1307 of this chapter, you must provide an environmental assessment, as set forth in Sec. 1.1311 of this chapter, and undergo the environmental review, Sec. 1.1312 of this chapter, before commencement of construction.

§ 95.307 On what channels may I operate?

(a) Your CB station may transmit only on the following channels (frequencies):

Channel No.	Frequency (MHz)
1	26.965
2	26.975
3	26.985

4	27.005
5	27.015
6	27.025
7	27.035
8	27.055
9	27.065[1]
10	27.075
11	27.085
12	27.105
13	27.115
14	27.125
15	27.135
16	27.155
17	27.165
18	27.175
19	27.185
20	27.205
21	27.215
22	27.225
23	27.255
24	27.235
25	27.245
26	27.265
27	27.275
28	27.285
29	27.295
30	27.305
31	27.315
32	27.325
33	27.335
34	27.345
35	27.355
36	27.365
37	27.375
38	27.385
39	27.395
40	27.405

[1] See paragraph (c) of this section.

(b) CB channels are available only on a shared basis and will not be assigned for the exclusive use of any user. All CB users must cooperate in the selection and use of channels, including limiting communications to the minimum practical time, to reduce interference and to make the most effective use of the facilities.

(c) Channel 9 may be used only for emergency communications or for traveler assistance.

(d) You may use any channel for emergency communications or for traveler assistance.

§ 95.309 Do I have any antenna limitations?

(1) If your antenna is mounted on a hand-held portable unit, none of the following limitations apply.

(2) If your antenna (whether receiving, transmitting or both) is installed at a fixed location, at its highest

point, it must not be more than 6.10 meters (20 feet) higher than the highest point of the building or tree on which it is mounted; or at its highest point, it must not be higher than 18.3 meters (60 feet) above the ground.

(3) If your CB station is located near an airport, and if your antenna structure is more than 6.1 meters (20 feet) high, you may have to obey additional restrictions. The highest point of your antenna must not exceed one meter above the airport elevation for every hundred meters of distance from the nearest point of the nearest airport runway. Differences in ground elevation between your antenna and the airport runway may complicate this formula. If your CB station is near an airport, you may contact the nearest FCC field office for a worksheet to help you figure the maximum allowable height of your antenna. Consult Part 17 of the FCC's Rules for more information.

§ 95.311 What equipment may I use at my CB station?

(a) You must use an FCC certificated CB transmitter at your CB station. You can identify an FCC certificated transmitter by the certification label placed on it by the manufacturer. You may examine a list of certificated equipment at any FCC Field Office or at FCC Headquarters. Use of a transmitter which is not FCC certificated voids your authority to operate the station.

(b) You must not make, or have made, any modifications to a certificated CB transmitter that changes or affects the technical operation of that transmitter, including any modification to provide for additional transmitting frequencies, increased modulation level, a different form of modulation, or increased transmitter output power (either mean power or peak envelope power or both). . Any internal modification to a certificated CB transmitter cancels the certification, and use of such a transmitter voids your authority to operate the station.

§ 95.313 May I use power amplifiers?

(a) You may not attach the following items (power amplifiers) to your certificated CB transmitter in any way:

(1) External radio frequency (RF) power amplifiers (sometimes called linears or linear amplifiers); or

(2) Any other devices which, when used with a radio transmitter as a signal source, are capable of amplifying the signal.

(b) There are no exceptions to this rule and use of a power amplifier voids your authority to operate the station.

(c) The FCC will presume you have used a linear or other external RF power amplifier if--

(1) It is in your possession or on your premises; and

(2) There is other evidence that you have operated your CB station with more power than allowed..

(d) Paragraph (c) of this section does not apply if you hold a license in another radio service which allows you to operate an external RF power amplifier.

§ 95.315 What communications may be transmitted?

(a) You may use your CB station to transmit two-way plain language communications. Two-way plain language communications are communications without codes or coded messages. Operating signals such as ``ten codes" are not considered codes or coded messages. You may transmit two-way plain language communications only to other CB stations, to units of your own CB station or to authorized government stations on CB frequencies.

(b) You must not use a CB station to communicate with stations in other countries, except General Radio Service stations in Canada.

(c) You may use your CB station to transmit one-way communications (messages which are not intended to establish communications between two or more particular CB stations) only for emergency communications, traveler assistance, brief tests (radio checks) or voice paging.

(d) You may use your CB station to transmit a tone signal only when the signal is used to make contact or to continue communications. (Examples of circuits using these signals are tone operated squelch and selective calling circuits.) If the signal is an audible tone, it must last no longer than 15 seconds at one time. If the signal is a subaudible tone, it may be transmitted continuously only as long as you are talking.

§ 95.317 What communications are prohibited?

(a) You must not use a CB station--

(1) In connection with any activity which is against federal, state or local law;

(2) To transmit obscene, indecent or profane words, language or meaning;

(3) To interfere intentionally with the communications of another CB station;

(4) To transmit one-way communications, except for emergency communications, traveler assistance, brief tests (radio checks), or voice paging;

(5) To advertise or solicit the sale of any goods or services;

(6) To transmit music, whistling, sound effects or any material to amuse or entertain;

(7) To transmit any sound effect solely to attract attention;

(8) To transmit the word ``MAYDAY" or any other international distress signal, except when your station is located in a ship, aircraft or other vehicle which is threatened by grave and imminent danger and you are requesting immediate assistance;

(9) To communicate with, or attempt to communicate with, any CB station more than 250 kilometers (155.3 miles) away;

(10) To advertise a political candidate or political campaign; (you may use your CB radio for the business or organizational aspects of a campaign, if you follow all other applicable rules);

(11) To communicate with stations in other countries, except General Radio Service stations in Canada; or

(12) To transmit a false or deceptive communication.

(b) You must not use a CB station to transmit communications for live or delayed rebroadcast on a radio or television broadcast station. You may use your CB station to gather news items or to prepare programs.

§ 95.319 May I be paid to use my CB station?

(a) You may not accept direct or indirect payment for transmitting with a CB station.

(b) You may use a CB station to help you provide a service, and be paid for that service, as long as you are paid only for the service and not for the actual use of the CB station.

§ 95.321 Do I have to limit the length of my communications?

(a) You must limit your CB communications to the minimum practical time.

(b) If you are communicating with another CB station or stations, you, and the stations communicating with you, must limit each of your conversations to no more than five continuous minutes.

(c) At the end of your conversation, you, and the stations communicating with you, must not transmit again for at least one minute.

§ 95.323 How do I use my CB station in an emergency or to assist a traveler?

(a) You must at all times and on all channels, give priority to emergency communications.

(b) You may use your CB station for communications necessary to assist a traveler to reach a destination or to receive necessary services.

(c) You may use your CB station to transmit one-way communications concerning highway conditions to assist travelers.

§ 95.325 May I operate my CB station transmitter by remote control?

(a) You may not operate a CB station transmitter by radio remote control. The use of a hands-free wireless microphone authorized under Part 15 to operate a Part 95 transmitter in the immediate vicinity is not considered operation by radio remote control for the purposes of this section.

(b) You may operate a CB transmitter by wireline remote control if you obtain specific approval in writing from the FCC. To obtain FCC approval, you must show why you need to operate your station by wireline remote control. If you receive FCC approval, you must keep the approval as part of your station records.

(c) Remote control means operation of a transmitter from any place other than the location of the transmitter. Direct mechanical control or direct electrical control by wire from some point on the same premises, craft or vehicle as the transmitter is not considered remote control.

§ 95.327 May I connect my CB station transmitter to a telephone?

(a) You may connect your CB station transmitter to a telephone if you comply with all of the following:

(1) You or someone else must be present at your CB station and must--

(i) Manually make the connection (the connection must not be made by remote control);

(ii) Supervise the operation of the transmitter during the connection;

(iii) Listen to each communication during the connection; and

(iv) Stop all communications if there are operations in violation of these rules.

(2) Each communication during the telephone connection must comply with all of these rules.

(3) You must obey any restriction that the telephone company places on the connection of a CB transmitter to a telephone.

(b) The CB transmitter you connect to a telephone must not be shared with any other CB station.

(c) If you connect your CB transmitter to a telephone, you must use a phone patch device with has been registered with the FCC.

Subpart F – Family Radio Service (FRS)

§ 95.401 Scope.

This subpart contains the operating requirements for the FRS. General and technical information pertaining to this service is contained in subparts A and B.

§ 95.403 Channels available.

(a) The FRS unit channel frequencies are:

Channel No.	Frequency (MHz)
1	462.5625
2	462.5875
3	462.6125
4	462.6375
5	462.6625
6	462.6875
7	462.7125
8	467.5625
9	467.5875

10	467.6125
11	467.6375
12	467.6625
13	467.6875
14	467.7125

(b) FRS channels are available only on a shared basis and will not be assigned for the exclusive use of any user. All FRS users must cooperate in the selection and use of channels, including limiting communications to the minimum practical time, to reduce interference and to make the most effective use of the facilities.

§ 95.405 Permissible communications.

You may use an FRS unit to conduct two-way voice communications with another person. You may use the FRS unit to transmit one-way communications only to establish communications with another person, send an emergency message, provide traveler assistance, provide location information, transmit a brief text message, make a voice page, or to conduct a brief test.

Subpart G – Low Power Radio Service (LPRS)

§ 95.501 Scope.

This subpart contains the operating requirements for the LPRS. General and technical information pertaining to this service is contained in subparts A and B.

§ 95.503 Channels available.

(a) LPRS transmitters may operate on any frequency listed in paragraphs (b), (c), and (d) of this section. Channels 19, 20, 50, and 151-160 are available exclusively for law enforcement tracking purposes. AMTS transmissions are limited to the 216.750-217.000 MHz band for low power point-to-point network control communications by AMTS coast stations. Other AMTS transmissions in the 216-217 MHz band are prohibited.

(b) The following table indicates standard band frequencies (the channel bandwidth is 25 kHz).

Channel No.	Center frequency(MHz)
1	216.0125
2	216.0375
3	216.0625
4	216.0875
5	216.1125
6	216.1375
7	216.1625
8	216.1875
9	216.2125
10	216.2375
11	216.2625
12	216.2875
13	216.3125
14	216.3375
15	216.3625
16	216.3875
17	216.4125
18	216.4375
19	216.4625
20	216.4875

21	216.5125
22	216.5375
23	216.5625
24	216.5875
25	216.6125
26	216.6375
27	216.6625
28	216.6875
29	216.7125
30	216.7375
31	216.7625
32	216.7875
33	216.8125
34	216.8375
35	216.8625
36	216.8875
37	216.9125
38	216.9375
39	216.9625
40	216.9875

(c) The following table indicates extra band frequencies (the channel bandwidth is 50 kHz).

Channel No.	Center frequency (MHz)
41	216.025
42	216.075
43	216.125
44	216.175
45	216.225
46	216.275
47	216.325
48	216.375
49	216.425
50	216.475
51	216.525
52	216.575
53	216.625
54	216.675
55	216.725
56	216.775
57	216.825
58	216.875
59	216.925
60	216.975

(d) The following table indicates narrowband frequencies (the channel bandwidth is 5 kHz and the authorized bandwidth is 4 kHz).

Channel No.	Center frequency (MHz)
61	216.0025
62	216.0075

63	216.0125
64	216.0175
65	216.0225
66	216.0275
67	216.0325
68	216.0375
69	216.0425
70	216.0475
71	216.0525
72	216.0575
73	216.0625
74	216.0675
75	216.0725
76	216.0775
77	216.0825
78	216.0875
79	216.0925
80	216.0975
81	216.1025
82	216.1075
83	216.1125
84	216.1175
85	216.1225
86	216.1275
87	216.1325
88	216.1375
89	216.1425
90	216.1475
91	216.1525
92	216.1575
93	216.1625
94	216.1675
95	216.1725
96	216.1775
97	216.1825
98	216.1875
99	216.1925
100	216.1975
101	216.2025
102	216.2075
103	216.2125
104	216.2175
105	216.2225
106	216.2275
107	216.2325
108	216.2375
109	216.2425
110	216.2475
111	216.2525
112	216.2575
113	216.2625

114	216.2675
115	216.2725
116	216.2775
117	216.2825
118	216.2875
119	216.2925
120	216.2975
121	216.3025
122	216.3075
123	216.3125
124	216.3175
125	216.3225
126	216.3275
127	216.3325
128	216.3375
129	216.3425
130	216.3475
131	216.3525
132	216.3575
133	216.3625
134	216.3675
135	216.3725
136	216.3775
137	216.3825
138	216.3875
139	216.3925
140	216.3975
141	216.4025
142	216.4075
143	216.4125
144	216.4175
145	216.4225
146	216.4275
147	216.4325
148	216.4375
149	216.4425
150	216.4475
151	216.4525
152	216.4575
153	216.4625
154	216.4675
155	216.4725
156	216.4775
157	216.4825
158	216.4875
159	216.4925
160	216.4975
161	216.5025
162	216.5075
163	216.5125
164	216.5175

165	216.5225
166	216.5275
167	216.5325
168	216.5375
169	216.5425
170	216.5475
171	216.5525
172	216.5575
173	216.5625
174	216.5675
175	216.5725
176	216.5775
177	216.5825
178	216.5875
179	216.5925
180	216.5975
181	216.6025
182	216.6075
183	216.6125
184	216.6175
185	216.6225
186	216.6275
187	216.6325
188	216.6375
189	216.6425
190	216.6475
191	216.6525
192	216.6575
193	216.6625
194	216.6675
195	216.6725
196	216.6775
197	216.6825
198	216.6875
199	216.6925
200	216.6975
201	216.7025
202	216.7075
203	216.7125
204	216.7175
205	216.7225
206	216.7275
207	216.7325
208	216.7375
209	216.7425
210	216.7475
211	216.7525
212	216.7575
213	216.7625
214	216.7675
215	216.7725

216	216.7775
217	216.7825
218	216.7875
219	216.7925
220	216.7975
221	216.8025
222	216.8075
223	216.8125
224	216.8175
225	216.8225
226	216.8275
227	216.8325
228	216.8375
229	216.8425
230	216.8475
231	216.8525
232	216.8575
233	216.8625
234	216.8675
235	216.8725
236	216.8775
237	216.8825
238	216.8875
239	216.8925
240	216.8975
241	216.9025
242	216.9075
243	216.9125
244	216.9175
245	216.9225
246	216.9275
247	216.9325
248	216.9375
249	216.9425
250	216.9475
251	216.9525
252	216.9575
253	216.9625
254	216.9675
255	216.9725
256	216.9775
257	216.9825
258	216.9875
259	216.9925
260	216.9975

(e) LPRS channels are available only on a shared basis and will not be assigned for the exclusive use of any user. All LPRS users must cooperate in the selection and use of channels, including limiting communications to the minimum practical time, to reduce interference and to make the most effective use of the facilities.

(f) Operation is subject to the conditions that no harmful interference is caused to the United States Air Force Space Surveillance system (operating in the band 216.88-217.08 MHz) or to TV reception within the Grade B contour of any TV Channel 13 station or within the 68 dBμV/m predicted contour of any low power TV or TV translator station operating on Channel 13.

§ 95.505 Permissible communications.

(a) LPRS stations may transmit voice, data, or tracking signals as permitted in this section. Two-way voice communications are prohibited.

(b) Auditory assistance communications (including but not limited to applications such as assistive listening devices, audio description for the blind, and simultaneous language translation) for:

(1) Persons with disabilities. In the context of the LPRS, the term "disability" has the meaning given to it by section 3(2)(A) of the Americans with Disabilities Act of 1990 (42 U.S.C. §12102(2)(A)), *i.e.*, persons with a physical or mental impairment that substantially limits one or more of the major life activities of such individuals;

(2) Persons who require language translation; or

(3) Persons who may otherwise benefit from auditory assistance communications in educational settings.

(c) Health care related communications for the ill.

(d) Law enforcement tracking signals (for homing or interrogation) including the tracking of persons or stolen goods under authority or agreement with a law enforcement agency (federal, state, or local) having jurisdiction in the area where the transmitters are placed.

(e) AMTS point-to-point network control communications.

§ 95.507 Notification requirement.

Prior to operating a LPRS transmitter for AMTS purposes, an AMTS licensee must notify, in writing, each television station that may be affected by such operations, as defined in § 80.215(h) of this chapter. The notification provided with the station's license application is sufficient to satisfy this requirement if no new television stations would be affected.

§ 95.509 Marketing limitations.

Transmitters intended for operation in the LPRS may be marketed and sold only for those uses described in § 95.505(a)-(d) of this chapter.

Subpart H – Wireless Medical Telemetry Service (WMTS)

§ 95.601 Scope.

This subpart sets out the regulations governing the operation of Wireless Medical Telemetry Devices in the 608-614 MHz, 1395-1400 MHz and 1427-1429.5 MHz frequency bands.

§ 95.603 Channels available.

(a) WMTS transmitters may operate on any channel within the frequency bands specified as below:

608-614 MHz

1395-1400 MHz

1427-1432 MHz

(b) In the 608-614 MHz band, wireless medical telemetry devices utilizing broadband technologies such as spread spectrum shall be capable of operating within one or more of the following channels of 1.5 MHz each, up to a maximum of 6 MHz, and shall operate on the minimum number of channels necessary to avoid harmful interference to any other wireless medical telemetry devices.

Channel Number	Channel bandwidth
1	608.0-609.5 MHz
2	609.5-611.0 MHz
3	611.0-612.5 MHz
4	612.5-614.0 MHz

(c) WMTS channels are available only on a shared basis and will not be assigned for the exclusive use of any user. All WMTS users must cooperate in the selection and use of channels, including limiting communications to the minimum practical time, to reduce interference and to make the most effective use of the facilities.

(d) Operations in the 608-614 MHz band (television Channel 37) are not protected from adjacent band interference from broadcast television operating on Channels 36 and 38.

§ 95.605 Permissible communications.

(a) All types of communications except voice and video are permitted, on both a unidirectional and bidirectional basis, provided that all such communications are related to the provision of medical care. Waveforms such as electrocardiograms (ECGs) are not considered video.

(b) Operations that comply with the requirements of this part may be conducted under manual or automatic control, and on a continuous basis.

§ 95.607 Frequency coordination.

(a) Prior to operation, authorized health care providers who desire to use wireless medical telemetry devices must register all devices with a designated frequency coordinator. The registration must include the following information:

(1) Specific frequencies or frequency range(s) used;

(2) Modulation scheme used (including occupied bandwidth);

(3) Effective radiated power;

(4) Number of transmitters in use at the health care facility as of the date of registration including manufacturer name(s) and model numbers;

(5) Legal name of the authorized health care provider;

(6) Location of transmitter (coordinates, street address, building); and

(7) Point of contact for the authorized health care provider (name, title, office, phone number, fax number, e-mail address).

(b) An authorized health care provider shall notify the frequency coordinator whenever a medical telemetry device is permanently taken out of service, unless the device is replaced with another transmitter utilizing the same technical characteristics as those reported on the effective registration. An authorized health care provider shall maintain the information contained in each registration current in all material respects, and shall notify the frequency coordinator when any change is made in the location or operatmg parameters previously reported which is material.

§ 95.609 Frequency coordinator.

(a) The Commission's frequency coordinator(s) to manage the usage of the frequency bands for the operation of medical telemetry devices is(are):

John T. Collins
Director of Engineering and Compliance
American Hospital Association
One North Franklin

Chicago, IL 60606
P: 312-422-3805
F: 312-422-4571
E: jcollins@aha.org

Updated information on the Commission's frequency coordinator can be found at:
http://wireless.fcc.gov/services/index.htm?job=licensing_1&id=wireless_medical_telemetry

(b) The frequency coordinator shall:

(1) Review and process coordination requests submitted by authorized health care providers as required in § 95.609;

(2) Maintain a database of WMTS use;

(3) Notify users of potential conflicts;

(4) Coordinate WMTS operation with radio astronomy observatories and Federal Government radar systems as specified in §§ 95.613 and 95.615 of this chapter.

(5) Notify licensees--who are operating in accordance with § 90.259(b)--of the need to comply with the field strength limit of § 90.259(b)(11) prior to initial activation of WMTS equipment in the 1427-1432 MHz band.

(6) Notify licensees--who are operating in 1392-1395 MHz band in accordance with subpart I of part 27--of the need to comply with the field strength limit of § 27.804 prior to initial activation of WMTS equipment in the 1395-1400 MHz band.

§ 95.611 Specific requirements for wireless medical telemetry devices operating in the 608-614 MHz band.

For a wireless medical telemetry device operating within the frequency range 608-614 MHz and that will be located near the radio astronomy observatories listed below, operation is not permitted until a WMTS frequency coordinator specified in § 95.609 has coordinated with, and obtained the written concurrence of, the director of the affected radio astronomy observatory before the equipment can be installed or operated.

(a) Within 80 kilometers of:

(1) National Astronomy and Ionosphere Center, Arecibo, Puerto Rico: 18°-20'-38.28" North Latitude, 66°-45'-09.42" West Longitude;

(2) National Radio Astronomy Observatory, Socorro, New Mexico: 34°-04'-43" North Latitude, 107°-37'-04" West Longitude; or

(3) National Radio Astronomy Observatory, Green Bank, West Virginia: 38°-26'-08" North Latitude, 79°-49'-42" West Longitude.

(b) Within 32 kilometers of the National Radio Astronomy Observatory centered on:

Very long baseline array stations	Latitude (north)	Longitude (west)
Pie Town, NM	34°-18'	108°-07'
Kitt Peak, AZ	31°-57'	111°-37'
Los Alamos, NM	35°-47'	106°-15'
Fort Davis, TX	30°-38'	103°-57'
North Liberty, IA	41°-46'	91°-34'
Brewster, WA	48°-08'	119°-41'
Owens Valley, CA	37°-14'	118°-17'
Saint Croix, VI	17°-46'	64°-35'

Mauna Kea, HI	19°-49'	155°-28'
Hancock, NH	42°-56'	71°-59'

The National Science Foundation point of contact for coordination is: Spectrum Manager, Division of Astronomical Sciences, NSF Room 1045, 4201 Wilson Blvd., Arlington, VA 22230, telephone: 703-306-1823.

§ 95.613 Specific requirements for wireless medical telemetry devices operating in the 1395-1400 and 1427-1429.5 MHz bands.

Due to the critical nature of communications transmitted under this part, the frequency coordinator in consultation with the National Telecommunications and Information Administration shall determine whether there are any Federal Government systems whose operations could affect, or could be affected by, proposed wireless medical telemetry operations in the 1395-1400 MHz and 1427-1429.5 MHz bands. The locations of government systems in these bands are specified in footnotes US351 and US352 of § 2.106 of this chapter.

§ 95.615 Protection of medical equipment.

The manufacturers, installers and users of WMTS equipment are cautioned that the operation of this equipment could result in harmful interference to other nearby medical devices.

Subpart I – Medical Device Radio Communications Service (MedRadio)

§ 95.701 Scope.

This subpart contains the operating requirements for the MedRadio. General information pertaining to this service is contained in subpart A.

§ 95.703 Permissible communications.

(a) Except for the purposes of testing and for demonstrations to health care professionals, MedRadio programmer/control transmitters may transmit only non-voice data containing operational, diagnostic and therapeutic information associated with a medical implant device or medical body-worn device that has been implanted or placed on the person by or under the direction of a duly authorized health care professional.

(b) Except in response to a medical implant event, or except as provided in § 95.715(b)(3), in the 402-405 MHz band no medical implant transmitter shall transmit except in response to a transmission from a medical implant programmer/control transmitter or in response to a non-radio frequency actuation signal generated by a device external to the body in which the medical implant transmitter is implanted or is to be implanted.

(c) MedRadio programmer/control transmitters may be interconnected with other telecommunications systems including the public switched telephone network.

(d) For the purpose of facilitating MedRadio system operation during a MedRadio communications session, as defined in § 95.3, MedRadio transmitters may transmit in accordance with the provisions of § 95.715(a) for no more than 5 seconds without the communications of data.; MedRadio transmitters may transmit in accordance with the provisions of § 95.715(b)(3) for no more than 3.6 seconds in total within a one hour time period without the communications of data; MedRadio transmitters may transmit in accordance with the provisions of § 95.715(b)(2) for no more than 360 milliseconds in total within a one hour time period without the communications of data.

(e) MedRadio programmer/control transmitters may not be used to relay information to a receiver that is not included with a medical implant or medical body-worn device. Wireless retransmission of information intended to be transmitted by a MedRadio programmer/control transmitter or information received from a medical implant or medical body-worn transmitter shall be performed using other radio services that