# **Personal Radio Services**

Personal radio services provide short-range, low power radio for personal communications, radio signaling, and business communications not provided for in other wireless services.

## The personal radio services are:

**<u>218-219 MHz Service</u>** - One or two way communications for transmission of information to subscribers within a specific service area.

**<u>Citizens Band (CB) Radio Service</u>** - 1-5 mile range two-way voice communication for use in personal and business activities.

**Family Radio Service (FRS)** - 1 mile range Citizen Band service for family use in their neighborhood or during group outings

**General Mobile Radio Service (GMRS)** - 5-25 mile range Citizen Band service for family use in their neighborhood or during group outings

**Low Power Radio Service (LPRS)** - private, one-way communications providing auditory assistance for persons with disability, language translation, and in educational settings, health care, law, and AMTS coast stations.

**Medical Implant Communications Service (MICS)** - for transmitting data in support of diagnostic or therapeutic functions associated with implanted medical devices.

<u>Multi-Use Radio Service (MURS)</u> - private, two-way, short-distance voice or data communications service for personal or business activities of the general public.

**Personal Locator Beacons (PLB)** - used by hikers, and people in remote locations to alert search and rescue personnel of a distress situation.

**Radio Control Radio Service (R/C)** - one-way non-voice radio service for on/off operation of devices at places distant from the operator.

**Wireless Medical Telemetry Service (WMTS)** - for remote monitoring of patients' health through radio technology and transporting the data via a radio link to a remote location, such as a nurses' station.

## **CB** Radio

Citizens Band (CB) Radio Service is a private two-way voice communication service for use in personal and business activities of the general public. Its communications range is from one to five miles.

## Licensing

License documents are neither needed nor issued and there are no age or citizenship requirements.

## Operations

You are provided authority to operate a CB unit in places where the FCC regulates radiocommunications, as long as you use only an unmodified FCC certificated CB unit. An FCC certificated unit has an identifying label placed on it by the manufacturer. Read more about restrictions of <u>operations</u> and <u>usage of channels</u>.

## Equipment

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.

## **Territorial Limits**

You may operate your CB unit within the territorial limits of the fifty United States, the District of Columbia, and the Caribbean and Pacific Insular areas ("U.S."). You may also operate your CB on or over any other area of the world, except within the territorial limits of areas where radio-communications are regulated by another agency of the U.S. or within the territorial limits of any foreign government. You may also be permitted to use your CB unit in Canada subject to the rules of Industry Canada. Travelers to the U.S. may operate a CB unit within the U.S. as long the unit is FCC certificated.

## **Linear Amplifier Ban**

Users may not raise the power output of their CB units.

## Antennas

There are no height restrictions for antennas mounted on vehicles or for hand-held units. For structures, the highest point of your antenna must not be more than 20 feet above the highest point of the building or tree on which it is mounted, or 60 feet above the ground. There are lower height limits if your antenna structure is located within two miles of an airport.

## Modes

Channels 1-23 are restricted to AM only. On channels 24-40 AM or upper and lower sideband may be used.

## Power

Four watts of carrier power is allowed for output on AM, and 12 watts of peak envelope power is the maximum power output on SSB.

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	26.965 MHz	21	27.215 MHz
2	26.975 MHz	22	27.225 MHz
3	26.985 MHz	23	27.255 MHz
4	27.005 MHz	24	27.235 MHz
5	27.015 MHz	25	27.245 MHz
6	27.025 MHz	26	27.265 MHz
7	27.035 MHz	27	27.275 MHz
8	27.055 MHz	28	27.285 MHz
9	27.065 MHz	29	27.295 MHz
10	27.075 MHz	30	27.305 MHz
11	27.085 MHz	31	27.315 MHz
12	27.105 MHz	32	27.325 MHz
13	27.115 MHz	33	27.335 MHz
14	27.125 MHz	34	27.345 MHz
15	27.135 MHz	35	27.355 MHz
16	27.155 MHz	36	27.365 MHz
17	27.165 MHz	37	27.375 MHz
18	27.175 MHz	38	27.385 MHz
19	27.185 MHz	39	27.395 MHz
20	27.205 MHz	40	27.405 MHz

# Family Radio Service (FRS)

Family Radio Service (FRS) is one of the Citizens Band Radio Services. It is used by family, friends and associates to communicate within a neighborhood and while on group outings and has a communications range of less than one mile. You can not make a telephone call with an FRS unit. You may use your FRS unit for business-related communications.

## Licensing

License documents are neither needed nor issued.

## Operations

You may operate your FRS unit within the territorial limits of the fifty United States, the District of Columbia, and the Caribbean and Pacific Insular areas ("U.S.").

## **FRS/GMRS Dual Service Radios**

Some manufacturers have received approval to market radios that are certified for use in both the Family Radio Service (FRS) and the General Mobile Radio Service (GMRS). Other manufacturers have received approval of their radios under the GMRS rules, but market them as FRS/GMRS radios on the basis that:

Some channels are authorized to both services, or

A user of the radio may communicate with stations in the other service.

Radios marketed as "FRS/GMRS" or "dual-service radios" are available from many manufacturers and many retail or discount stores. The manual that comes with the radio, or the label placed on it by the manufacturer, should indicate the service the unit is certified for. If you cannot determine what service the unit may be used in, contact the manufacturer.

If you operate a radio that has been approved exclusively under the rules that apply to FRS, you are not required to have a license. FRS radios have a maximum power of 0.5 watt (500 milliwatt) effective radiated power and integral (non-detachable) antennas. If you operate a radio under the rules that apply to <u>GMRS</u>, you must have a GMRS license. GMRS radios generally transmit at higher power levels (1 to 5 watts is typical) and may have detachable antennas.

## Modes

FM only

## Power

FRS radios are restricted to 0.5 watts

CHANNEL	FREQUENCY
01	462.5625
02	462.5875
03	462.6125
04	462.6375
05	462.6625
06	462.6875
07	462.7125
08	467.5625
09	467.5875
10	467.6125
11	467.6375
12	467.6625
13	467.6875
14	467.7125

Channels 1-7 are shared with GMRS

# **General Mobile Radio Service (GMRS)**

The General Mobile Radio Service (GMRS) is a land-mobile radio service available for short-distance two-way communications to facilitate the activities of an adult individual and his or her immediate family members, including a spouse, children, parents, grandparents, aunts, uncles, nephews, nieces, and in-laws

The FCC grants five-year renewable licenses for GMRS Systems. The individual licensee is responsible for the proper operations of the licensed GMRS system at all times.

## Licensing

Before any station transmits on any channel authorized in the GMRS from any point within or over the territorial limits of any area where the FCC regulates radio services, the responsible party must obtain a license. The FCC usually grants GMRS system licenses for a five-year term. To apply for a GMRS system license, you may file online through the <u>Universal Licensing</u> <u>System</u> (ULS), or file <u>FCC Form 605</u> manually.

### Modes

GMRS uses FM voice only

#### Power

50 watts maximum

Channel	Туре	Frequency
1	FRS / GMRS	462.5625
2	FRS / GMRS	462.5875
3	FRS / GMRS	462.6125
4	FRS / GMRS	462.6375
5	FRS / GMRS	462.6625

6	FRS / GMRS	462.6875
7	FRS / GMRS	462.7125
8	FRS	467.5625
9	FRS	467.5875
10	FRS	467.6125
11	FRS	467.6375
12	FRS	467.6625
13	FRS	467.6875
14	FRS	467.7125
15	GMRS	462.5500
16	GMRS	462.5750
17	GMRS	462.6000
18	GMRS	462.6250
19	GMRS	462.6500
20	GMRS	462.6750
21	GMRS	462.7000
22	GMRS	462.7250

# Multi-Use Radio Service (MURS)

In the Memorandum Opinion and Order and Second Report and Order (pdf) released May 23, 2002, the Commission updated the service rules regarding five Industrial/Business Pool VHF frequencies known in the PLMR community as the VHF "color dot" frequencies. These frequencies were moved from Part 90 to Part 95 and became a new Citizens Band Radio Service (CB) named the Multi-Use Radio Service (MURS). The Commission defines MURS as a private, two-way, short-distance voice or data communications service for personal or business activities of the general public.

## Licensing

No licenses are issued for this service.

#### Modes

FM voice as well as data. Image transmission is not allowed

#### Power

2 watts max

Frequency 151.8200 151.8800 151.9400 154.5700 154.6000