

MURS, FRS, GMRS Etc.

Family Radio Service:

FRS is intended for short range personal communications. 14 interstitial channels were allocated from the GMRS band to form FRS. These radios may be used for almost any purpose, by individuals or businesses, with no licenses or coordination required. They have become ubiquitous in malls and parks for families to keep in touch, for store workers to check stock and all kinds of purposes. The radios may be bought everywhere for as low as \$5.00 each. Some higher priced radios also include the GMRS channels, these require licenses but most users never bother. Most of these "22 Channel" FRS/GMRS radios have the GMRS only channels in 15 thru 22 channel positions to remain compatible with straight FRS radios' channels 1 thru 14. FRS and FRS/GMRS radios often have PL capabilities, some also have DPL. FRS Channels 1 thru 7 are shared with GMRS users.

FRS Radios are restricted to 1/2 watt, a built-in antenna and narrow bandwidth modulation. Combination FRS/GMRS radios often have the GMRS channels (FRS 1 thru 7 and 15 thru 22) at a higher power level as GMRS licensees are allowed 5 watts on the shared FRS/GMRS channels and 50 watts on the exclusive GMRS channels..

FRS 1	462.5625	FRS 8	467.5625	15	462.5500
FRS 2	462.5875	FRS 9	467.5875	16	462.5750
FRS 3	462.6125	FRS 10	467.6125	17	462.6000
FRS 4	462.6375	FRS 11	467.6375	18	462.6250
FRS 5	462.6625	FRS 12	467.6625	19	462.6500
FRS 6	462.6875	FRS 13	467.6875	20	462.6750
FRS 7	462.7125	FRS 14	467.7125	21	462.7000
				22	462.7250

General Radio Mobile Service:

GMRS, formerly called "Class A CB", was intended for almost any type of group, company or individual use. In the 1980's the FCC changed the GMRS rules to allow only individuals to be licensed although existing business and organizational licenses could continue to be used. Individual licensees may now use any of the 8 repeater pairs and 7 interstitial channels.

GMRS is very popular with REACT and other Public Service groups. 462.675, PL 141.3 is recognized as a nationwide calling channel/

462.550 (467.550) GMRS 1 (Repeat or simplex, up to 50 watts)	462.5625 (Simplex, 5 watts)
462.575 (467.575) GMRS 2 " " "	462.5875 "
462.600 (467.600) GMRS 3 " " "	462.6125 "
462.625 (467.625) GMRS 4 " " "	462.6375 "
462.650 (467.650) GMRS 5 " " "	462.6625 "
462.675 (467.675) GMRS 6 " " "	462.6875 "
462.700 (467.700) GMRS 7 " " "	462.7125 "
462.725 (467.725) GMRS 8 " " "	

Local GMRS Repeaters:

Frequency	PL	Name	City	County	Notes
462.6750	141.3	NSEA	Park Ridge	Cook	REACT type operations
462.7250	100.0	U-Comm	Evanston	Cook	General Use
462.5500	156.7		Joliet	Will	General Use

Multi Use Radio Service:

MURS is a two-way, short-distance voice, data or image communications service for personal or business activities of the general public. Culled from various business band channels these are often used in stores, plants and other commercial activities. No license is required, and up to 2 watts is allowed, making this an attractive alternative to FRS due to the longer range inherent in the VHF band and higher allowed power.

1 151.8200 2 151.8800 3 151.9400 4 154.5700 5 154.6000

“Dot” Channel Identifiers

Several manufacturers of low power portable radios intended for local simplex operations have assigned informal identifiers to their radios. These ID’s are not official or supported by the FCC. Most of the listed channels fall in the Business, MURS, FRS, and GMRS bands, and are supposed to be restricted to authorized users and activities. Often, however, they are indiscriminately used for and by anyone who buys the radios.

Red Dot	151.6250	Brown Dot	464.5000
Purple Dot	151.9550	Yellow Dot	464.5500
Blue Dot	154.5700	Silver Star	467.8500
Green Dot	154.6000	Gold Star	467.8750
MURS1	151.8200	Red Star	467.9000
MURS2	151.8800	Blue Star	467.9250
MURS3	151.9400	J	467.7625
Unnamed	151.7000	K	467.8125
Unnamed	151.7600		

Citizen’s Band:

CB Radio once was actually useful for business and individual communications, users were licensed and rules were actually followed. It devolved into a nightmare of high power linear amplifiers, beeps and noisemakers, over-driven mics, “Free Band” operations (outside legal frequencies) and other nonsense. CB remains popular with OTR trucks on the Interstates but otherwise is fairly useless.

Power levels is supposed to be limited to 4 watts and AM and SSB operations are allowed. Illegal “Freeband” operations abound in the 27.405 to 28.9 MHz. range, using AM, FM and SSB.

“Class C” Remote control channels are interspaced within the CB band, these are intended to be used to control model plane, cars and boats etc. Often illegal voice operations can be heard here as well.

1	26.965	11	27.085	21	27.215	31	27.315	Class C
2	26.975	12	27.105	22	27.225	32	27.325	Remote
3	26.985	13	27.115	23	27.235	33	27.335	Control:
4	27.005	14	27.125	24	27.245	34	27.345	26.995
5	27.015	15	27.135	25	27.255	35	27.355	27.045
6	27.025	16	27.155	26	27.265	36	27.365	27.095
7	27.035	17	27.165	27	27.275	37	27.375	27.145
8	27.055	18	27.175	28	27.285	38	27.385	27.195
9	27.065	19	27.185	29	27.295	39	27.395	
10	27.075	20	27.205	30	27.305	40	27.405	

Wireless Microphones

Wireless Mics can be found almost anywhere, but the majority are found on the following frequencies. These are often used by performance venues, police car video systems, churches, schools, CARMA meetings and more. Usually they are extremely low power, so if you can hear the police car chances are it is you that is being stopped.

169.345	171.045*	175.400	184.025	192.325
169.445	171.105	176.425	185.125	193.825
169.505	171.845	177.650	187.800	194.400
169.545	171.905	178.225	188.200	195.425
170.245	173.225	179.200	189.325	195.972
170.305	173.275	181.400	190.075	196.800
170.345	173.325	181.850	190.600	
170.445	173.375	182.550	191.300	*CARMA

Maritime Frequencies

<u>Ch Nr</u>	<u>Frequency</u>	<u>Use</u>	<u>Ch Nr</u>	<u>Frequency</u>	<u>Use</u>
01	156.050	Commercial	28	162.000	Radio telephone
05	156.250	Commercial	63	156.175	Commercial
06	156.300	Intership safety	65	156.275	Port Operations
07	157.350	Commercial	66	156.325	Port Operations
08	156.400	Intership safety	67	156.375	Commercial
09	156.450	Commercial	68	156.425	non-Commercial
10	156.500	Commercial	69	156.475	non-Commercial
11	156.550	Commercial	70	156.525	non-Commercial
12	156.600	Port Operations	71	156.575	non-Commercial
13	156.650	Port Operations	72	156.625	non-Commercial
14	156.700	Commercial	73	156.675	Port Operations
14	157.700	Commercial	74	156.725	Port Operations
15	156.750	Environmental	77	156.875	Commercial
16	156.800	Calling/distress	78	156.925	Non-Commercial
17	156.850	Admin/Enforceme	79	156.975	Commercial
18	156.900	Commercial	80	157.025	Commercial
19	156.950	Commercial	81	157.075	Coast Guard
20A	161.600	Port Operations	82	157.125	Coast Guard
20	157.000	Port Operations	83	157.175	Coast Guard
21	157.050	Coast Guard	84	161.825	Radio telephone
22	157.100	Coast Guard	85	161.875	Radio telephone
23	157.150	Coast Guard	86	161.925	Radio telephone
24	161.800	Radio telephone	87	161.975	Radio telephone
25	161.850	Radio telephone	88	157.425	Commercial
26	161.900	Radio telephone	83B	161.775	Coast Guard
27	161.950	Radio telephone	21B	161.650	Coast Guard

* Not all channels used in all areas.

Low power on-board communications:

Repeater Outputs:	457.5250	457.5500	457.5750	457.6000
Repeater Inputs:	467.7500	467.7750	467.8000	467.8250

Automated Maritime Telecommunications System (AMTS) (Voice, fax and teletype)
216.0125 thru 219.9875 (25 KHz. Steps, channels 101-180, Mobiles transmit 2 MHz. up)

