Family Radio Service (FRS) Use in Barbados

Policy in accordance with sections 4 (2)(b) and 4 (2)(f) of the Telecommunications Act 2001-36.

1. INTRODUCTION

1.1 The Telecommunications Unit (TU) in the Ministry of Energy and Public Utilities will identify the requirements necessary for the use of FRS devices.

1.2 This document outlines the specifications of the FRS use in Barbados Policy.

1.3 FRS is the abbreviation for Family Radio Service. It is a personal UHF two-way Citizen Band (CB), short distance communications service, which has a range of approximately 1-2 miles.

1.2 FRS intended use is for hand-held, short range communication. It operates in Narrowband FM (NBFM) with a radiated power of 0.5 watts. The service can be advantageous to families and friends while going on group excursions. FRS units can be operated in the Caribbean.

1.5 The proceeding paragraphs show the spectrum allocated for FRS as well as the conditions of use of the service.

2. SPECTRUM ALLOCATION

2.1 The Telecommunications Unit has a range of frequencies which accommodates FRS users.

2.2 FRS utilizes 14 frequencies for broadcasting, operating around 70cm wavelength from 462.5625 MHz - 467.7125 MHz, with a maximum bandwidth of 12.5 KHz, with 25 KHz spacing. Indicated in Table 1 below is the frequency allocation.

Table 1: Frequency Allocation for FRS

Channel 1	462.5625
Channel 2	462.5875
Channel 3	462.6125
Channel 4	462.6375
Channel 5	462.6625
Channel 6	462.6875
Channel 7	462.7125
Channel 8	467.5625
Channel 9	467.5875
Channel 10	467.6125
Channel 11	467.6375
Channel 12	467.6625
Channel 13	467.6875
Channel 14	467.7125

NB: The first 7 FRS channels are similar to the Simplex frequencies of the General Mobile Radio Service (GMRS)

3. CONDITIONS OF USE

3.1 A licence must be obtained from the Telecommunications Unit (TU) in Upton, St. Michael, in order to operate a "FRS unit. Before any FRS equipment can be used or put on sale, the Telecommunications Unit (TU) must approve it."

Continuous Tone Controlled Squelch System (CTCSS)

3.2 The majority of FRS radios are equipped with Continuous Tone Controlled Squelch System (CTCSS), which allows the squelch on the FRS radio to remain closed to unwanted radio signals until the correct digital code is received. CTCSS is a means of informing the radio, not to open the squelch for incoming radio signals, unless the radio signal has a tone that matches the tone the FRS radio is set to. CTCSS minimizes interference and it is not secure. Illustrated in Table 2 below is the different CTCSS tones used.

Table 2: Standard tones for CTCSS devices

Tone in Hz	Tone in Hz
67.0 (FRS 1)	156.7 (FRS 25)
69.3	159.8
71.9 (FRS 2)	162.2 (FRS 26)
74.4 (FRS 3)	165.5
77.0 (FRS 4)	167.9 (FRS 27)
79.7 (FRS 5)	171.3
82.5 (FRS 6)	173.8 (FRS 28)
85.4 (FRS 7)	177.3
88.5 (FRS 8)	179.9 (FRS 29)
91.5 (FRS 9)	183.5
94.8 (FRS 10)	186.2 (FRS 30)
97.4 (FRS 11)	189.9
100.0 (FRS 12)	192.8 (FRS 31)
103.5 (FRS 13)	196.6
107.2 (FRS 14)	199.5
110.9 (FRS 15)	203.5 (FRS 32)
114.8 (FRS 16)	206.5
118.8 (FRS 17)	210.7 (FRS 33)
123.0 (FRS 18)	218.1 (FRS 34)
127.3 (FRS 19)	225.7 (FRS 35)
131.8 (FRS 20)	229.1
136.5 (FRS 21)	233.6 (FRS 36)
141.3 (FRS 22)	241.8 (FRS 37)
146.2 (FRS 23)	250.3 (FRS 38)
151.4 (FRS 24)	254.1

General Mobile Radio Service (GMRS)

4.1 To improve the range of communication, a service known as General Mobile Radio Service (GMRS) can be facilitated. It is a UHF two-way communications service that can benefit immediate family members. The range of service is limited up to 5 miles in Barbados.

4.2 FRS utilizes seven (7) low power GMRS channels. GMRS licensees are allowed 5 watts ERP on these specific channels and 0.5 watts for FRS.

Licences & Regulations

5.1 A licence fee of $20.00 is required to operate an FRS or GMRS radio in Barbados according to the Telecommunications (Licence Fees) Regulations, S.I. 2003 No.78. All such radios must be type-approved by the Telecommunications Unit in the Ministry responsible for Telecommunications. FRS radios must not be modified, to ensure users comply with the intended purpose of the radio service. Modifying the radio in any way would void the type acceptance, making it illegal to use in the FRS.

Emergency Calling

6.1 For emergency calling, individuals possessing a licence to operate, can use 462.675/467.675 MHz. 462.675 MHz communication is normally repeater communication and not simplex. As a result of this, a person calling for help using simplex communication can be affected by a person using a repeater that is out of range. A repeater radio would be appropriate to take advantage of 462.675 MHz.