

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of)
)
GARMIN INTERNATIONAL, INC.)
)
Request for Waiver of Family Radio Service Rule)
Sections 95.193(a) and 95.631(d) to Authorize)
Manufacture, Sale and Use of GPS Transmission)
Enhanced FRS Units)
)
Request for Waiver of Sections 95.193(a),)
95.193(b), and 95.631(d) of the Commission's)
Rules Governing Permissible Communications in)
the Family Radio Service)

ORDER

Adopted: September 28, 2000

Released: September 29, 2000

By the Chief, Public Safety and Private Wireless Division, Wireless Telecommunications Bureau:

I. INTRODUCTION

1. On June 22, 2000, Garmin International, Inc. (Garmin) filed a request for waiver of the Family Radio Service (FRS) rules.¹ Garmin requests waiver of the rules that authorize two-way voice communications with another person using a FRS unit and that permit FRS units to transmit only emission type F3E and tones to establish or continue voice communications² so that it can manufacture and market inexpensive handheld FRS transceivers capable of transmitting Global Positioning System (GPS) location information on FRS channels.³ For the reasons stated below, Garmin's request for waiver of the Commission's Rules is granted in part.

II. BACKGROUND

2. In 1996, the Commission established the FRS as a very short distance, two-way personal radio service.⁴ The *Report and Order* established the FRS primarily on the basis that it would fill a market niche

¹ Letter from Garmin International, Inc. to Federal Communications Commission (dated June 22, 2000) (June 2000 Waiver Request).

² See 47 C.F.R. §§ 95.193(a) and 95.631(d), respectively.

³ June 2000 Waiver Request at 1.

⁴ See Amendment of Part 95 of the Commission's Rules to Establish a Very Short Distance Two-way Radio Service, *Report and Order*, WT Docket No. 95-102, 11 FCC Rcd 12977 (1996) (*Report and Order*).

in short distance, personal communications needs.⁵ It was envisioned that the FRS would provide an affordable and convenient means of direct, short range two-way voice communications among small groups of persons, with minimal regulation.⁶ Because the FRS is intended to meet the needs of families and other small groups to communicate with each other while they are out of speaking distance or sight, but still within close range, and to prevent the FRS from being used as a substitute for other personal communications services, non-voice emission types, except tones transmitted to establish or continue voice communications, were not authorized.⁷ FRS units also may be used to transmit one-way communications to send an emergency message.⁸

3. On August 4, 1999, Garmin filed a request for waiver⁹ of Sections 95.193(a), 95.193(b), and 95.631(d) of the Commission's FRS rules.¹⁰ Garmin maintained that these waivers were necessary for it to receive FCC certification for a FRS transceiver that is capable of transmitting location information derived from the GPS.¹¹ Garmin proposed to manufacture a handheld communications device that would include a polling feature whereby each unit would be able to page other units thereby causing the other units to automatically transmit their GPS-derived location so that the location of the transmitting unit could be displayed on the map of the receiving unit.¹² On February 28, 2000, the Wireless Telecommunications Bureau's Public Safety and Private Wireless Division (Division) denied Garmin's request for waiver on the grounds that Garmin had failed to demonstrate, as required by our Rules governing waiver requests, that either a) the underlying purpose of the FRS rules would not be served or would be frustrated by their application in this context; or b) that because of unique or unusual circumstances, application of the rules would be inequitable, unduly burdensome or contrary to the public interest, or that Garmin had no reasonable alternative.¹³

⁵ *Id.* at 12978 ¶ 2.

⁶ *Id.*

⁷ *Id.* at 12984 ¶ 13; *see also* 47 C.F.R. §§ 95.193(a), 95.629(d).

⁸ *See* 47 C.F.R. § 95.193(a).

⁹ Letter from Garmin International, Inc. to D'wana Terry, Chief, Public Safety and Private Wireless Division, Wireless Telecommunications Bureau, Federal Communications Commission (dated August 4, 1999) (August 1999 Waiver Request).

¹⁰ *See* 47 C.F.R. §§ 95.193(a), 95.193(b), and 95.631(d), respectively. The August 1999 Waiver Request requested waiver of the FRS rules that authorize an FRS user to use an FRS unit to conduct two-way voice communications with another person, that allow FRS units to transmit tones to make contact or continue communications with a particular FRS unit, and that permit an FRS unit to transmit only emission type F3E. A non-voice emission is limited to tones to establish or continue voice communications.

¹¹ August 1999 Waiver Request at 1.

¹² *Id.* at 2.

¹³ *See* Letter from D'wana R. Terry, Chief, Public Safety and Private Wireless Division, to Andrew R. Etkind, General Counsel, Garmin International, Inc. (February 28, 2000) (Denial Letter).

4. On March 29, 2000, Garmin filed a petition seeking reconsideration of the Division's decision.¹⁴ Garmin stated that the Division's concerns that the units it proposed to manufacture could be used for tracking purposes and to poll the location of other FRS units could be adequately addressed by eliminating the polling feature and designing the FRS units so that transmission of location information would be possible only by human intervention, *i.e.*, a user would be required to press a button on the unit in order to transmit the unit's location.¹⁵ On June 27, 2000, Garmin informed the Commission, by letter, that it desired to withdraw the petition.¹⁶ Based on our understanding that Garmin is no longer interested in pursuing reconsideration of the Division's decision, we will grant its request to withdraw its petition for reconsideration.

5. In its June 2000 Waiver Request, Garmin again requests waiver of two rule sections that were included in its August 1999 Waiver Request.¹⁷ Specifically, Garmin requests waiver of the FRS rules that authorize an individual to use a FRS unit to conduct two-way voice communications with another person and that permit FRS units to transmit only emission type F3E and selective calling or tone-operated squelch tones to establish or continue voice communications.¹⁸ Garmin seeks the waiver so that it can receive FCC certification of a FRS transceiver that transmits GPS location information using emission type F2D in a digital data burst of not more than one second.¹⁹ Garmin also states that, unlike the unit proposed in its August 1999 Waiver Request, GPS location information would be transmitted by a FRS unit only by the user pressing a button on the unit.²⁰ On August 28, 2000, Garmin clarified that the units it proposed to manufacture would be standard FRS voice communication radios incorporating an enhancement which would permit transmission of GPS location information.²¹ Garmin also stated that it would be possible to limit transmission of GPS information to only once every 10 seconds if a user were to repeatedly press the transmit button or switch.²²

¹⁴ See Petition for Reconsideration filed March 29, 2000.

¹⁵ *Id.* at 2-3.

¹⁶ Letter from Garmin International, Inc. to Chief, Public Safety and Private Wireless Division, Wireless Telecommunications Bureau, Federal Communications Commission (dated June 27, 2000).

¹⁷ June 2000 Waiver Request at 1.

¹⁸ See 47 C.F.R. §§ 95.193(a) and 95.631(d), respectively. Emissions are designated by an alphanumeric code that indicates the type of modulation of the main carrier, nature of the signal(s) modulating the main carrier, and the type of information to be transmitted. 47 C.F.R. § 2.201(b). F3E is a type of voice emission. 47 C.F.R. § 2.201(e).

¹⁹ June 2000 Waiver Request at 2. F2D is a type of data transmission. 47 C.F.R. § 2.201(e).

²⁰ *Id.* at 1.

²¹ Letter from Garmin International, Inc. to D'wana Terry, Chief, Public Safety and Private Wireless Division, Wireless Telecommunications Bureau, Federal Communications Commission (dated August 28, 2000) (August 2000 Letter).

²² *Id.*

III. DISCUSSION

6. The Commission's Rules provide that we may grant a waiver request if a) the underlying purpose of the rules would not be served or would be frustrated by application to the instant case, and a waiver would be in the public interest; or b) in view of unique or unusual circumstances, application of the rules would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative.²³ Recently the Commission reiterated that waiver of its rules is appropriate only if special circumstances warrant a deviation from the general rule, and such a deviation will serve the public interest.²⁴ It is against this backdrop that we will analyze Garmin's June 2000 Waiver Request. For the reasons set forth below, we believe that allowing FRS units to transmit location information derived from the GPS would further the Commission's stated goals in establishing the FRS.

7. Based on the information before us, we conclude that the underlying purpose of the FRS rules potentially would be frustrated by application of Sections 95.193(a) and 95.631(d) of the Commission's Rules to the instant matter. We note, as an initial matter, that these rules are intended to ensure that FRS is used to meet the needs of families and other small groups for direct, short range, two-way voice communications, particularly when persons become separated, either planned or inadvertently.²⁵ The FRS rules also provide that one-way emergency messages may be sent, thereby facilitating the safety of family or group members who have become inadvertently separated.²⁶ Garmin's request appears to be premised upon its belief that permitting the transmission of GPS-derived location information on FRS channels would be a significant enhancement to FRS.²⁷ In this connection, we note that the enhancement proposed by Garmin is the direct result of technological developments that have occurred since the creation of FRS. Garmin has provided examples of how the units that it proposes to market could be used, including facilitating the location of lost family members in the woods or at amusement parks.²⁸ Thus, we believe that permitting the implementation of Garmin's proposal would further the purposes for which the FRS was created.

8. We nonetheless believe that it is important to ensure that there are safeguards to ensure that such enhancement does not result in a departure from the basic nature of the FRS. In this regard, we note that Garmin recently submitted information showing that transmission of GPS-derived location information would only be an enhancement to its FRS unit's voice capabilities²⁹ and that it would be possible to limit transmission of this information to only once every ten seconds.³⁰ Thus, we will require

²³ See 47 C.F.R. § 1.925(b)(3).

²⁴ See Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems, *Fourth Memorandum Opinion and Order*, CC Docket No. 94-102, FCC 00-326, ¶ 43 (rel. September 8, 2000).

²⁵ See *Report and Order*, 11 FCC Rcd at 12978 ¶ 3.

²⁶ See 47 C.F.R. § 95.193(a).

²⁷ June 2000 Waiver Request at 3.

²⁸ *Id.*

²⁹ August 2000 Letter at 1.

³⁰ *Id.*

that Garmin design its units to limit transmission of GPS-derived location information to only once every ten seconds. We also will require that Garmin include information in the instructions accompanying its units that the capability to transmit GPS-derived location information is provided for personal and public safety purposes and that transmission of GPS-derived location information for other location determination purposes is not authorized by the FRS rules. We believe that these requirements are necessary in order to emphasize to users that the capability to transmit GPS-derived location information is an enhancement provided for personal and public safety purposes.

9. In addition, we will require that Garmin incorporate the change it has suggested, redesigning the proposed FRS unit so that it can not automatically poll other units to determine their location based on GPS data,³¹ to insure that the purpose of the FRS rules is not defeated. As we noted above, this change does not prevent a user from transmitting GPS-derived location information every ten seconds for personal or public safety purposes. It does, however, prevent a user from deploying numerous units and using them for applications such as surveying or tracking, albeit within a limited area, because such uses would appear to be inconsistent with the underlying purposes of the FRS. We also will require that Garmin inform users that if interference to a GPS-derived location information transmission is received from a FRS voice transmission, the user transmitting GPS-derived location information must accept this interference.

IV. CONCLUSION AND ORDERING CLAUSES

10. We conclude that grant of a waiver is in the public interest because it could result in the FRS being used for additional personal and public safety applications. Accordingly, we grant a one-year waiver to Garmin to permit it to manufacture and market FRS transceivers capable of transmitting GPS location information on FRS channels, subject to the following conditions and requirements:

- Garmin is authorized to manufacture and market for a one-year trial period FRS transceivers that are capable of transmitting location information derived from the GPS on FRS channels, provided that the FRS transceiver complies with all other technical standards applicable to the FRS.³² This waiver is granted on the condition that the FCC may immediately terminate the waiver if harmful interference³³ is reported to the Commission.
- Garmin must include information in the instructions accompanying its units that the capability to transmit GPS-derived location information is provided for personal and public safety purposes and that transmission of GPS-derived location information for other location determination purposes is not authorized by the Commission.
- Garmin must design the units it proposes to manufacture to limit transmission of emission type F2D GPS-derived location information digital data bursts to not longer than one second and not more

³¹ June 2000 Waiver Request at 1.

³² If Garmin wishes to obtain permanent authorization to manufacture and market such units, it should file a petition for rulemaking proposing the necessary revisions to the FRS rules. See 47 C.F.R. § 1.401.

³³ Harmful interference for purposes of this waiver will be considered interference which endangers the functioning of a radionavigation service or of other safety services or seriously degrades, obstructs or repeatedly interrupts another radiocommunication service operating in accordance with the Commission's Rules or the international *Radio Regulations*.

frequently than once every 10 seconds.

- Garmin must inform users that if interference to a GPS-derived location information transmission is received from a FRS voice transmission, the user transmitting GPS-derived location information must accept this interference.
- Garmin must redesign the units it proposes to manufacture so a unit can not automatically poll other units to determine their location based on GPS-derived location information.

11. Accordingly, IT IS ORDERED that pursuant to Sections 4(f) and 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(f), 154(i), and Section 1.925 of the Commission's Rules, 47 C.F.R. § 1.925, Garmin International, Inc.'s request for waiver of Sections 95.193(b) and 95.631(d) of the Commission's Rules, filed June 22, 2000, IS GRANTED IN PART for one year from the date of this *Order*, to the extent indicated herein.

12. IT IS FURTHER ORDERED that pursuant to Sections 4(i) and 405 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 405, and Section 1.106 of the Commission's Rules, 47 C.F.R. § 1.106, Garmin International, Inc.'s request on June 27, 2000, to withdraw its petition for reconsideration filed on March 29, 2000, IS GRANTED.

13. This action is taken under delegated authority pursuant to Sections 0.131 and 0.331 of the Commission's Rules, 47 C.F.R. §§ 0.131, 0.331.

FEDERAL COMMUNICATIONS COMMISSION



D'wana R. Terry
Chief, Public Safety and Private Wireless Division
Wireless Telecommunications Bureau