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

In the Matter of	)	
	)	
Review of the Commission's Part 95 Personal Radio Services Rules	)	WT Docket No. 10-119
	)	
	)	
Petition for Rulemaking of Garmin International, Inc.	)	RM-10762
	)	
	)	
Petition for Rulemaking of Omnitronics, L.L.C.	)	RM-10844
	)	

MEMORANDUM OPINION AND ORDER ON RECONSIDERATION

Adopted: August 3, 2021 **Released: August 4, 2021**

By the Commission:

I. INTRODUCTION

1. This Memorandum Opinion and Order on Reconsideration (Order) addresses three petitions for reconsideration of the 2017 Report and Order in this proceeding, which reorganized and updated the Commission's Part 95 Personal Radio Services rules.[1] Cobra Electronics Corporation (Cobra), Motorola Solutions, Inc. (Motorola), and Medtronic, Inc. (Medtronic) each filed a petition for reconsideration of particular aspects of the Report and Order regarding specific services.[2] After careful consideration of the supplemented record,[3] we find that the public interest will be served by granting the petitions and making some additional rule corrections, as described herein.

II. BACKGROUND

2. The Personal Radio Services governed by Part 95 include various short-range, low-power services, generally for public use over shared spectrum with operation authorized by rule rather than by individual licenses.[4] In the Report and Order, the Commission reorganized Part 95 to make it easier for

[1] *Review of the Commission's Part 95 Radio Services Rules*, Report and Order, 32 FCC Rcd 4292 (2017) (Report and Order).

[2] *See* Petition for Reconsideration of Cobra Electronics Corporation, WT Docket No. 10-119 (filed June 23, 2017) (Cobra Petition); Petition for Partial Reconsideration of Motorola Solutions, Inc., WT Docket No. 10-119, RM-10762, and RM-10844 (filed Sept. 28, 2017) (Motorola Petition); Petition for Reconsideration of Medtronic, Inc., WT Docket No. 10-119, RM-10762, and RM-10844 (filed Sept. 28, 2017) (Medtronic Petition).

[3] The three petitions were placed on public notice on December 1, 2017. *See Petitions for Reconsideration of Action in Proceeding*, Public Notice, Rep. No. 3082 (Dec. 1, 2017), https://www.fcc.gov/edocs/search-results?t=advanced&reportNumber=3082; *see also* 82 Fed. Reg. 58374 (Dec. 12, 2017).

[4] *See* Report and Order, 32 FCC Rcd at 4294-95, paras. 4-5. The Personal Radio Services consist of eleven different services. *Id.* at 4294, para. 4; *see* 47 CFR Part 95. While Part 95 originally applied mainly to mobile voice communication for individuals and radio control devices used by hobbyists for control of model devices, the scope has expanded over time to include, for example, devices used to locate lost persons, retrieve data from implanted medical devices, and increase highway safety. *Id*. at 4293, para. 3, citing *Review of the Commission's Part 95*

(continued….)

the public to use by consolidating similar or duplicative rules that were located in various subparts and arranging the specific service rules in each subpart according to a common template to the extent possible.[5] The Commission also made substantive changes to the rules governing certain services, including the CB Radio Service,[6] General Mobile Radio Service (GMRS), and Family Radio Service (FRS).

3. Cobra requests that the Commission permit Frequency Modulation as an optional modulation scheme in the CB Radio Service.[7] Motorola asks the Commission to allow automatic or periodic location and data transmissions on GMRS and FRS frequencies.[8] Medtronic seeks the correction of typographical errors and rules changes that inadvertently altered the substance of the Medical Device Radiocommunications Service (MedRadio) rules.[9] Each of these requests is discussed in more detail, below.

III. DISCUSSION

4. *Cobra Petition*. CB Radio Service is a mobile and fixed two-way voice communications service for facilitating personal, business, or voluntary public service activities, including communications to provide assistance to highway travelers.[10] While there has been a general decline in the use of CB radios, certain segments of the public, such as long haul drivers or highway patrol, continue to use them on the highways and in rural areas.[11] Commenters to the Notice of Proposed Rulemaking in this proceeding recommended various changes to the CB Radio Service rules in order to keep up with current technology and conditions.[12] In the Report and Order, the Commission, while adopting some of these suggestions,[13] declined the suggestion to permit use of Frequency Modulation (FM),[14] leaving Amplitude Modulation (AM) and Single Side Band (SSB) as the only permitted voice emission types.[15] It concluded that such a change would "expand or substantially change the character of the service" and "the alternative modulation techniques would be incompatible with the existing equipment base."[16]

5. On June 23, 2017, Cobra filed a petition for reconsideration requesting that the Commission permit FM operation as part of an optional dual modulation scheme for CB radios (i.e., a CB

(Continued from previous page)
Personal Radio Service Rules, WT Docket No. 10-119, Notice of Proposed Rulemaking and Memorandum Opinion and Order on Reconsideration, 25 FCC Rcd 7651, 7653 (2010) (NPRM).

[5] *See* Report and Order, 32 FCC Rcd at 4296-97, paras. 9-11.

[6] The CB Radio Service rules are codified at 47 CFR §§ 95.901 *et seq*. These are to be distinguished from the rules for the "Citizens Broadband Radio Service," codified at 47 CFR §§ 96.1 *et seq*.

[7] *See* Cobra Petition.

[8] *See* Motorola Petition; *see also* Letter from Frank Korinek, Director of Government Affairs, Spectrum and Regulatory Policy, Motorola Solutions, Inc., to Marlene H. Dortch, Secretary, FCC (July 25, 2018) (Motorola *Ex Parte*).

[9] *See* Medtronic Petition.

[10] Report and Order, 32 FCC Rcd at 4294, para. 4.

[11] *Id.* at 4317, paras. 61-62.

[12] *Id.* at 4320, para. 71.

[13] For example, the Commission removed the requirement that the serial number of each CB radio be engraved into the transmitter chassis. *Id.* at para. 72.

[14] *See id.* at 4321, para. 74, citing the comments of Jeffrey Kardos Jr.

[15] *See* 47 CFR §§ 95.967, 95.971, 95.973.

[16] *See* Report and Order, 32 FCC Rcd at 4321, para. 74.

radio could have both AM and FM capability).[17] Cobra states that this "would allow users to enjoy the benefits of FM, if they so choose, while ensuring every new radio sold could communicate with all the existing radios in the field."[18] It argues that a dual modulation approach has been used successfully in other countries for many years.[19] Cobra and others suggest that an FM option will benefit the CB radio user – both professional and recreational – in that it will provide better quality and clarity of communications.[20] President Electronics USA (President), a subsidiary of Groupe President Electronics, which is a leading supplier of CB radios with AM and FM mode in Europe, concurs that AM and FM each have "unique advantages" and together provide "a better user experience" for CB radios.[21] No commenter opposed Cobra's petition.

6. After considering this additional information, we conclude that allowing manufacturers to add FM as an optional modulation scheme will not substantially change the fundamental nature of the CB Radio Service and will improve the user experience, as described by Cobra and President. How people use the service will not materially change or be expanded. Further, Cobra states that AM is a "well-established" operating mode that is unlikely to disappear, even if we permit operations in FM mode.[22] Continuing to mandate AM capability while permitting dual modulation will provide benefits to CB radio users who will have an additional modulation option, while maintaining the basic character of the service. The addition of FM as a permitted mode will not result in additional interference because users who hear unintelligible audio on a particular channel can simply select another channel or switch modes.[23]

7. Accordingly, we grant the Cobra Petition to the extent described herein.[24] Specifically, we amend Section 95.971(a) of the Commission's rules to permit CB Radio Service transmitters to transmit FM voice emissions along with AM.[25] We note that AM and FM operations are permitted in other Part 95 services under similar technical parameters,[26] so we generally apply the technical rules to FM signals as currently apply to AM signals for the CB Radio Service. This approach is the same as that taken in other Part 95 services.[27] In the case of peak frequency deviation, however, we adopt a limit of ±2 kHz due to the 10 kHz channel spacing and 8 kHz occupied bandwidth maximum in the CB Radio

[17] *See* Cobra Petition at 1.

[18] *Id.*

[19] *Id.*; *see also* Letter from Michael Williams, Vice President, Engineering and Quality, Cobra Electronics Corporation, to Marlene H. Dortch, Secretary, FCC, at 1 (Apr. 30, 2018) (Cobra *Ex Parte*) (stating that CB Radio Service radios use both AM and FM emissions in Brazil, Russia, and most European countries).

[20] *See* Cobra *Ex Parte* at 2; Letter from Pearse Umlauf, President & CEO, Mark A. Smith Off-Roading, Inc. dba Jeep Jamboree, to Marlene H. Dortch, Secretary, FCC (June 8, 2018); Letter from Kavi Sharma, Chief Operating Officer/General Manager, President Electronics USA, to Marlene H. Dortch, Secretary, FCC, at 1 (May 24, 2018) (President *Ex Parte*).

[21] *See* President *Ex Parte* at 1 ("For example, AM can provide longer distance communication due to ionospheric skip whereas FM can provide higher quality communication as they are less prone to noise.").

[22] Cobra *Ex Parte* at 2. Indeed, President notes that it continues to manufacture and sell AM-only radios in Europe as well as dual-modulation models. *See* President *Ex Parte* at 1.

[23] *See* Cobra *Ex Parte* at 1-2.

[24] *See* 47 CFR § 1.429(b)(3). A petition for reconsideration in a rulemaking proceeding that relies on facts or arguments not previously presented to the Commission will be granted when the Commission determines that consideration of those facts or arguments is required in the public interest. We make such a determination here regarding the new facts and arguments presented by Cobra that support our decision to grant Cobra's petition.

[25] 47 CFR § 95.971(a). *See* Appendix hereto.

[26] *See, e.g.*, 47 CFR § 95.1771 for GMRS emission types and 47 CFR § 95.2771 for MURS emission types.

[27] *See, e.g.*, 47 CFR §§ 95.1767, 95.1773, 95.1775, 95.1779, 95.2767, 95.2775, 95.2779.

Service. Although this specific limit differs from those established in other Part 95 services (e.g., ±5 kHz for 20 kHz channel bandwidth and ±2.5 kHz for 12.5 kHz channel bandwidth in both GMRS and Multi-Use Radio Service (MURS)), it is consistent across Part 95 services considering the respective occupied bandwidths. We note that the ±2 kHz limit is the current European standard for CB radios that use AM and FM transmissions, thereby facilitating equipment compatibility.[28] We also find it appropriate to use the common FM emission designator used for Part 95 GMRS and MURS for FM CB Radio Service. These technical rules are implemented through the amendment of Sections 95.967, 95.971, 95.973, 95.975, and 95.979 of the Commission's rules to reflect the addition of FM as an optional additional mode of transmission.[29] We note that parties planning to incorporate the FM mode into CB radios will have to obtain a valid grant of certification under the Commission's equipment authorization rules.[30]

8. *Motorola Petition*. GMRS is a mobile two-way voice communications service, with limited data applications, for facilitating activities of individual licensees and their family members, including communications during emergencies and natural disasters.[31] Similarly, FRS is a very short-distance, two-way voice communications service, with limited data applications, between low-power hand-held radios, for facilitating individual, family, group, recreational, and business activities.[32] GMRS and FRS co-exist on the same frequencies, except for the GMRS 467 MHz main channels.[33] In the Report and Order, the Commission amended the GMRS rules to allow the transmission of location information and user-generated text messages subject to certain requirements, as already was permitted for FRS operations.[34] For example, digital data transmissions in the GMRS are "limited to location information, requests for location information from other units, and brief text messages to another specific unit; [and] must be initiated by a manual action or command of a user, except that a unit receiving a location request from another unit may automatically respond with its location."[35] The Commission concluded that the benefits of allowing this type of digital transmission, including potential personal safety applications, exceeded the minimal risk of any increase in interference or congestion in the GMRS.[36] It declined Motorola's suggestion to permit automatic or periodic location and data transmissions, however, after concluding that the record was not adequate to consider it.[37]

9. On September 28, 2017, Motorola filed a petition seeking reconsideration of the decision not to permit automatic or periodic location and data transmissions.[38] It seeks harmonized rule amendments for both the GMRS and FRS, since the two services coexist on the same frequencies.[39] Motorola argues that automatic transmissions should be allowed because almost all of the reasons that support permitting manual data transmissions apply equally to transmissions initiated automatically,

[28] *See* European Telecommunications Standards Institute EN 300 433 V.2.1.1 (2016-05), Citizens' Band (CB) radio equipment; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU, para. 7.3.3.

[29] 47 CFR §§ 95.967(a), 95.971(a), 95.973(a), 95.975(a), and 95.979(a). *See* Appendix hereto.

[30] *See* 47 CFR §§ 95.335 and 95.337.

[31] Report and Order, 32 FCC Rcd at 4294, para. 4.

[32] *Id*.

[33] *See* Motorola *Ex Parte* at 1, n. 2.

[34] *See* Report and Order at 4306-07, paras. 35-39.

[35] *Id.* at 4307, para. 38.

[36] *See id.* at 4307, paras. 37-38.

[37] *See id.* at 4308, para. 39.

[38] Motorola Petition at 1.

[39] *See* Motorola *Ex Parte* at 1, n. 2.

except for how frequently a user could transmit the data information.[40] Members of the GMRS community support Motorola's suggestion to permit automatic or periodic location and data transmissions.[41]

10. Motorola contends that allowing automatic data transmissions is in the public interest and will enhance public safety.[42] Motorola explains that automatic location transmissions will provide tracking capabilities for individuals in remote areas where these expanded capabilities will aid search and rescue missions.[43] For example, improved tracking will aid skiers, backpackers, and hunters who may become lost. This clearly will enhance public safety, particularly where commercial wireless network coverage is lacking.[44] Individuals tracking the location of another member of their party will not be burdened by the need to manually request location, but rather the information simply will be available on their device.

11. Based on the supplemented record in this proceeding, we conclude that the public interest will be furthered by allowing automatic or periodic location and data transmission on all GMRS channels in contrast to the Report and Order, which only permitted manually-initiated data transmissions.[45] For radio users in remote, outdoor locations, the quality of service should not be diminished. Rather, the safety of these individuals will be increased by having more frequent location information available without repeated manual requests. Moreover, in an emergency situation involving individuals who are disoriented or otherwise unable to send manual transmissions, the automatic transmission of location information could enhance search and rescue operations.

12. Automatic or periodic location and data transmissions will be subject to the same technical limitations as manual data transmissions. While the record reflects a range of suggested duty cycles,[46] we see no reason to depart from the duty cycle limitations already found to be reasonable by the Commission for manual data transmissions for FRS and for GMRS.[47] We are not persuaded by speculation that existing duty cycle restrictions will not be sufficient to maintain quality of service[48] and

[40] *See* Motorola Petition at 4-5.

[41] *See, e.g.*, Letter from Rick Dunajewski, President, RepeaterFinder, LLC, myGMRS.com, to Marlene H. Dortch, Secretary, FCC (June 6, 2018); Further Comments of RepeaterFinder, LLC, my GMRS.com, Inc., WT Docket No. 10-119, WT Docket No. 98-182 RM-9222, RM-10762, RM-10844, filed June 19, 2018 (myGMRS.com Further Comments); Reply Comments to the Petition for Partial Reconsideration, Northern California GMRS Users Group (NCGUG), WT Docket No. 10-119, WT Docket No. 98-182 RM-9222, RM-10762, RM-10844, filed July 15, 2018 (NCGUG Reply Comments); *see also* Letter from Thomas Hannason, Sr. Account Manager, Rocky Mtns. Astra Communications, to Marlene H. Dortch, Secretary, FCC (July 29, 2018) (noting that first responders and search and rescue groups working in "off-the-grid" locations agree that Motorola's proposal will be helpful to them).

[42] Further Comments of Motorola Solutions, Inc., WT Docket No. 10-119, WT Docket No. 98-182 RM-9222, RM-10762, RM-10844, at 2 (filed Jan. 8, 2018) (Motorola Further Comments).

[43] *See id.*; Motorola *Ex Parte* at 1.

[44] *See id.*

[45] *See* Report and Order, 32 FCC Rcd at 4307, para. 38; 47 CFR § 95.1773(c). No digital data transmissions – manually-initiated or automatic – are permitted on the repeater input frequencies in the 467 MHz range. 47 CFR § 95.1773(c).

[46] *See* Motorola Further Comments at 2-3 (suggesting a duty cycle of one to two seconds and an interval of 30-60 seconds); myGMRS.com Further Comments at 2-3 (supporting a five-second maximum transmission duration and a two-minute minimum interval, but not proposing a specific duty cycle); NCGUG Reply Comments at 4 (supporting myGRMS.com).

[47] *See* Report and Order, 32 FCC Rcd at 4307, para. 38; *Garmin International, Inc., Amendment of Sections 95.193(a), 95.193(b) and 95.631(d) of the Commission's Rules in the Family Radio Service,* WT Docket No. 01-339, Report and Order, 18 FCC Rcd 2349, 2358-59, para. 22 (2003) (FRS Order).

[48] *See* NCGUG Reply Comments at 4.

see no evidence that existing limitations are not working. Consequently, automatic or periodic transmissions will be limited to no more than once every 30 seconds and no more than one second in duration.[49]

13. Similarly, we decline the suggestion to require equipment manufacturers to install a Busy Channel Lockout feature that would prevent automatic or periodic data transmissions until the device detects that the particular channel is free.[50] In light of the fact that the Commission rejected this suggestion as unnecessary when it permitted manual data transmissions in the FRS[51] and that we are adopting the duty cycle limitations previously adopted for manual data transmissions,[52] we find insufficient evidence here to persuade us to require radios to have such a feature. One commenter suggests additional restrictions intended to protect GMRS and FRS operations.[53] Given that all GMRS and FRS users – whether transmitting voice or data, automatically or manually – are responsible for the proper operation of their stations and must cooperate in the selection and use of channels in order to avoid interference and make efficient use of the spectrum,[54] we decline to mandate additional technical restrictions because we are not persuaded that these requirements are necessary in addition to our service rules currently in place. Utilizing analogous technical rules for manual and automatic or periodic data transmissions will ensure that the existing character of the GMRS and FRS will not be substantially altered by adding automatic or periodic location and data transmissions as an option.[55] That said, we encourage stakeholders to explore the implementation of any other features that they believe would enhance the GMRS and FRS user experience.

14. Consistent with the Commission's approach to treating GMRS and FRS similarly with regard to digital data transmissions,[56] we amend our rules to permit automatic or periodic location and data transmissions for both GMRS and FRS. Indeed, because FRS operates on channels shared with GMRS, automatic or periodic location and data transmissions would be permitted on those channels even if we did not amend the FRS rules. Furthermore, because FRS operates at lower power than GMRS, any perceived interference concern with permitting automatic or periodic location and data transmissions with respect to GMRS is even less of a concern with respect to FRS.[57]

15. For the foregoing reasons, and based on the additional information filed in the record in this proceeding, we find that the public interest will be furthered by granting the Motorola Petition to the extent described herein. Specifically, we amend Sections 95.531, 95.587, and 95.1787 of our rules to permit FRS and GMRS units to transmit location and data information automatically or periodically,

[49] Motorola agrees that this is a workable option. *See* Motorola *Ex Parte* at 4.

[50] *See* myGMRS.com Further Comments at 2. NCGUG also mentions such a feature, but it is unclear whether NCGUG is suggesting that the Commission require it. *See* NCGUG Reply Comments at 4.

[51] FRS Order, 18 FCC Rcd at 2356, para. 17. The Commission did not even consider such an option when it permitted manual data transmissions in the GMRS in the Report and Order.

[52] We agree with Motorola's recommendation that we leave implementation and adoption of this type of technology (which Motorola states that it intends to implement) to the marketplace. Motorola *Ex Parte* at 3.

[53] NCGUG recommends that the Commission prohibit automatic or periodic transmissions by devices operating under automatic control and require a time-out feature that stops automatic transmissions if the radio is no longer in motion. *See* NCGUG Reply Comments at 4.

[54] *See, e.g.*, 47 CFR §§ 95.343, 95.359.

[55] For example, users taking advantage of automatic or periodic data transmissions will be subject to the same duty cycle limitations currently in place for manual data transmissions, which will limit the impact of any increased channel usage.

[56] *See* Report and Order, 32 FCC Rcd at 4307, para. 38.

[57] *Compare* 47 CFR § 95.567 *with* 47 CFR § 95.1767.

subject to the same restrictions as are currently in place for manual data transmissions.[58] We also take this opportunity to correct a typographical error in the GMRS frequency listings in Section 95.1763(d) as adopted in the Report and Order[59] by correcting the erroneous entry for 467.5675 MHz to refer to 467.5625 MHz.[60]

16. *Medtronic Petition*. In the Report and Order, the Commission specifically noted that, other than reorganization of the Part 95 rules to fit a new template, it did not make any "substantive changes to the MedRadio Service…."[61] Medtronic points out in its petition, however, that several rule revisions meant to be "ministerial" inadvertently may have modified the existing MedRadio Service rules.[62] Medtronic requests that the Commission revise certain rules to fix the inadvertent substantive changes and correct typographical errors.[63]

17. We grant the Medtronic Petition and amend the rules as requested, with a few modifications, to undo inadvertent changes to the MedRadio Service rules.[64] First, Medtronic points out that the new version of Section 95.303 defines the "authorized bandwidth" for Part 95 services in terms of "occupied bandwidth," but the flexible rules applicable to the MedRadio Service do not require the measurement of occupied bandwidth.[65] We resolve this inconsistency by amending the MedRadio rules to remove the incompatible "authorized bandwidth" concept. Specifically, we amend Section 95.2573[66] to clarify that the emission bandwidth definition in Section 95.2503 should be used for the MedRadio Service and make other conforming edits to indicate the channelization flexibility up to the bandwidth limits outlined in Section 95.2573. Further, we amend Section 95.2579[67] to remove the use of the term "occupied bandwidth," which has a specific definition in Section 95.303, and instead refer to the "MedRadio channel the transmission is intended to occupy" in order to make the language consistent with similar language in other MedRadio Service rules.[68] These changes will remove the use of similar yet incompatible terms from the MedRadio rules.[69] We accept Medtronic's suggested changes to Sections

[58] 47 CFR §§ 95.531, 95.587, 95.1787. *See* Appendix hereto.

[59] 47 CFR § 95.1763(d).

[60] The reference to 467.5675 MHz in rule section 95.1763(d) of the Report and Order's final rules was a typographical error. The correct frequency is 467.5625 MHz, as reflected in the NPRM's discussion of GMRS interstitial channels, *see* NPRM, 25 FCC Rcd at 7661, n.54 and 7668, n.103, and in the Report and Order table reflecting the new channel allotment for GMRS and FRS, *see* Report and Order, 32 FCC Rcd at 4313. Because of the inadvertent and noncontroversial nature of this obvious error as explained above, we find for good cause that the notice and comment procedures of the Administrative Procedure Act would serve no useful purpose and are therefore unnecessary. 5 U.S.C. § 553(b)(3)(B).

[61] Report and Order, 32 FCC Rcd at 4323, para. 81.

[62] Medtronic Petition at 1.

[63] *Id*. at 3.

[64] *See* Medtronic Petition, Attachment A. *See* Appendix hereto.

[65] *See* Medtronic Petition, Attachment A, at 2.

[66] 47 CFR § 95.2573.

[67] 47 CFR § 95.2579.

[68] *See* 47 CFR §§ 95.2503, 95.2559(a).

[69] Medtronic's petition suggested resolving the inconsistency by carving an exemption for MedRadio out of the definitions in Section 95.303, but we find the approach taken here preferable because 95.303 contains definitions that apply across all Part 95 services, so specific exceptions to those general definitions are best laid out within specific service rules.

95.2557(b), (c)[70] and 95.2559(a)(6)[71] because we agree they return the rules back to their original intent. Further, we take this opportunity to correct certain typographical errors, as suggested by Medtronic and on our own motion, in Sections 95.2503,[72] 95.2509(e)(2),[73] 95.2533(e)(2),[74] and 95.2559(f)[75] of the MedRadio Service rules.[76]

18. Finally, we clarify the language in Section 95.2569(c) to remove incorrect terminology regarding "SAR Measurement techniques" and return the rule to be closer to its previous language.[77] Section 95.2569(c) is designed to address the measurement of field strength and radiated power of devices that are implanted within a body. SAR measurements, by contrast, are used in connection with the evaluation of radiofrequency exposure and are already addressed in Section 95.2585. Because the original language and measurement guidance accurately described in-body simulations, we correct Section 95.2569(c) to refer to the "dielectric parameters for the tissue-equivalent material" with regard to measuring energy emitted from implanted devices.

IV. PROCEDURAL MATTERS

19. *Supplemental Final Regulatory Flexibility Certification.* The Regulatory Flexibility Act of 1980, as amended (RFA),[78] requires that a regulatory flexibility analysis be prepared for rulemaking proceedings, unless the agency certifies that "the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities."[79] The RFA generally defines "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[80] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[81] A small business concern is one which (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA). [82]

20. The two statutorily-mandated criteria to be applied in determining the need for RFA analysis are (1) whether the proposed rules, if adopted, would have a *significant economic effect*, and (2)

[70] Specifically, we remove the words "without the communications of data" from the end of time period limit in the rule because it mistakenly introduced a data carriage provision that was not in the original MedRadio rules.

[71] Specifically, we remove the word "authorized" from in front of the word "channel" because it leaves a false impression that authorization is needed in the selection of MedRadio channels.

[72] We replace the word "if" with "of" to fix a typographical error.

[73] We insert the word "frequency" in front of the word "coordinator" twice to fix its omission from the rule.

[74] We delete the word "device" from the sentence because it was a typographical error.

[75] We replace "MBAN Networks" with "MBANs" because the "N" in "MBAN" stands for network.

[76] *See* Appendix hereto.

[77] *Id*.

[78] *See* 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601- 612, was amended by the Small Business Regulatory Enforcement Fairness Act of 1996, (SBREFA) Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

[79] 5 U.S.C. § 605(b).

[80] 5 U.S.C. § 601(6).

[81] 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

[82] Small Business Act, § 15 U.S.C. § 632.

if so, whether the economic effect would *directly affect a substantial number of small entities*.[83] Upon application of these criteria in the Report and Order, the Commission determined that the reorganization of Part 95 and substantive changes made to rules governing certain services would not have a significant economic impact on a substantial number of small entities and included a Final Regulatory Flexibility Certification (FRFC) in the Report and Order which is subject to review in this Memorandum Opinion and Order on Reconsideration.[84] No comments or petitions for reconsideration were received on the FRFC.

21. The actions taken by the Commission in this Order amend our rules to make certain activities permissible but not required,[85] fix typographical errors,[86] clarify language in Part 95,[87] and correct unintended substantive changes made in the Report and Order.[88] More specifically, the activities made permissible in this Order allow for the addition of FM as an optional modulation scheme which will enable CB radios to have both AM and FM capability and will apply the existing technical rules for AM to FM signals. In addition, the Order harmonizes the rules for two two-way voice communication services (GMRS and FRS) that co-exist on the same frequencies, which will enhance public safety and serve the public interest. These actions will not have a significant economic impact on a substantial number of small entities. Therefore, we certify that the requirements of this Order will not have a significant economic impact on a substantial number of small entities.

22. The Commission will send a copy of this Order, including a copy of this Supplemental Final Regulatory Flexibility Certification, in a report to Congress pursuant to the Congressional Review Act.[89] In addition, the Order and this supplemental final certification will be sent to the Chief Counsel for Advocacy of the SBA, and will be published in the Federal Register.[90]

23. *Paperwork Reduction Analysis*. This document does not contain any new or modified information collection requirements subject to the Paperwork Reduction Act of 1985 (PRA), Public Law 104-13. In addition, therefore, it does not contain any new or modified information collection burden for small business concerns with fewer than 25 employees, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198.[91]

24. *Congressional Review Act*. The Commission has determined, and the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, concurs, that this rule is non-major under the Congressional Review Act, 5 U.S.C. § 804(2). The Commission will send a copy of this Memorandum Opinion and Order on Reconsideration to Congress and the Government Accountability office, pursuant to 5 U.S.C. § 801(a)(1)(A).

V. ORDERING CLAUSES

25. ACCORDINGLY, IT IS ORDERED that, pursuant to the authority contained in Sections 1, 4(i), 4(j), 301, 303, 304, 309, 316, 332, and 405 of the Communications Act of 1934, as amended, and

[83] 5 U.S.C. § 603, *et seq*. *See also Mid-Tex Electric Cooperative, Inc., v. FERC*, 773 F.2d 327, 342-343 (D.C. Cir. 1985) (*Mid-Tex Electric*).

[84] *See* Report and Order.

[85] *See supra* paras. 6 and 13.

[86] *See supra* para. 13.

[87] *See supra* para. 15.

[88] *Id.*

[89] *See* 5 U.S.C. § 801(a)(1)(A).

[90] *See* 5 U.S.C. § 605(b).

[91] *See* 44 U.S.C. § 3506(c)(4).

Section 706 of the Telecommunications Act of 1996, as amended, 47 U.S.C. §§ 151, 154(i), 154(j), 301, 303, 304, 309, 316, 332, 405, and 1302, and Section 1.429 of the Commission's rules, 47 CFR § 1.429, this Memorandum Opinion and Order on Reconsideration **IS ADOPTED** and **SHALL BE EFFECTIVE** 30 days after publication in the *Federal Register*.

26. IT IS FURTHER ORDERED, pursuant to Section 405 of the Communications Act of 1934, as amended, 47 U.S.C. § 405, and Section 1.429 of the Commission's rules, 47 C.F.R. § 1.429, that the Petition for Reconsideration of the Report and Order in the above-referenced proceeding, filed by Cobra Electronics Corporation on June 23, 2017, IS HEREBY GRANTED, to the extent discussed herein.

27. IT IS FURTHER ORDERED, pursuant to Section 405 of the Communications Act of 1934, as amended, 47 U.S.C. § 405, and Section 1.429 of the Commission's rules, 47 C.F.R. § 1.429, that the Petition for Partial Reconsideration of the Report and Order in the above-referenced proceeding, filed by Motorola Solutions, Inc. on September 28, 2017, IS HEREBY GRANTED, to the extent discussed herein.

28. IT IS FURTHER ORDERED, pursuant to Section 405 of the Communications Act of 1934, as amended, 47 U.S.C. § 405, and Section 1.429 of the Commission's rules, 47 C.F.R. § 1.429, that the Petition for Reconsideration of the Report and Order in the above-referenced proceeding, filed by Medtronic, Inc. on September 28, 2017, IS HEREBY GRANTED, to the extent discussed herein.

29. IT IS FURTHER ORDERED, that Sections 95.531, 95.587, 95.967, 95.971, 95.973, 95.975, 95.979, 95.1763, 95.1787, 95.2503, 95.2509, 95.2533, 95.2557, 95.2559, 95.2569, 95.2573, and 95.2579 of the Commission's rules, 47 CFR §§ 95.531, 95.587, 95.967, 95.971, 95.973, 95.975, 95.979, 95.1763, 95.1787, 95.2503, 95.2509, 95.2533, 95.2557, 95.2559, 95.2569, 95.2573, and 95.2579, are AMENDED as set forth in the Appendix. The amendments shall become effective thirty (30) days after publication of this Memorandum Opinion and Order on Reconsideration in the Federal Register.

30. IT IS FURTHER ORDERED, that the Commission SHALL SEND a copy of this Memorandum Opinion and Order on Reconsideration to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. § 801(a)(1)(A).

31. IT IS FURTHER ORDERED, that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Memorandum Opinion and Order on Reconsideration, including the Supplemental Final Regulatory Flexibility Certification, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX

Final Rules

The Federal Communications Commission amends Part 95 of Title 47 of the Code of Federal Regulations (CFR) as set forth below:

Part 95 of Chapter 1 of Title 47 of the Code of Federal Regulations is amended as follows:

PART 95 – PERSONAL RADIO SERVICES

1. The authority citation for Part 95 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 303, 307.

2. Section 95.531 is amended by revising paragraph (a) to read as follows:

§ 95.531 Permissible FRS uses.

* * * * *

(a) *Digital data.* In addition to voice conversations, FRS units may transmit digital data containing location information, or requesting location information from one or more other FRS or GMRS units, or containing a brief text message to another specific GMRS or FRS unit. Digital data transmissions may be initiated by a manual action of the operator or on an automatic or periodic basis, and a FRS unit receiving an interrogation request may automatically respond with its location. *See also* § 95.587(c). * * * * *

3. Section 95.587 is amended by revising paragraph (c)(2) to read as follows:

§ 95.587 FRS additional requirements.

* * * * *

(c) * * *

(2) Digital data transmissions may be initiated by a manual action or command of the operator or on an automatic or periodic basis, and FRS units may be designed to automatically respond with location data upon receiving an interrogation request from another FRS unit or a GMRS unit.

* * * * *

4. Section 95.967 is amended by revising paragraph (a) to read as follows:

§ 95.967 CBRS transmitter power limits.

* * * * *

(a) When transmitting amplitude modulated (AM) voice signals or frequency modulated (FM) voice signals, the mean carrier power must not exceed 4 Watts.

* * * * *

5. Section 95.971 is amended by revising paragraph (a) to read as follows:

§ 95.971 CBRS emission types.

* * * * *

(a) *Permitted emission types.* CBRS transmitter types must transmit AM voice emission type A3E or SSB voice emission types J3E, R3E or H3E, and may also transmit FM voice emission type F3E.

* * * * *

6. Section 95.973 is amended by revising paragraph (a) to read as follows:

§ 95.973 CBRS authorized bandwidth.

* * * * *

(a) *AM and FM.* The authorized bandwidth for emission types A3E and F3E is 8 kHz.

* * * * *

7. Section 95.975 is amended by adding a new paragraph (c) to read as follows:

§ 95.975 CBRS modulation limits.

* * * * *

(c) When emission type F3E is transmitted the peak frequency deviation shall not exceed ±2 kHz.

* * * * *

8. Section 95.979 is amended by revising the first row of the table in paragraph (a) to read as follows:

§ 95.979 CBRS unwanted emissions limits.

* * * * *

(a) *Attenuation requirements.* * * *

Emission Type	Paragraph
A3E, F3E	(1), (3), (5), (6).
* * * * * * *	* * * * * * *

* * * * *

9. Section 95.1763 is amended by revising paragraph (d) to read as follows:

§ 95.1763 GMRS channels.

* * * * *

(d) *467 MHz interstitial channels*. Only hand-held portable units may transmit on these 7 channels. The channel center frequencies are: 467.5625, 467.5875, 467.6125, 467.6375, 467.6625, 467.6875, and 467.7125 MHz.

10. Section 95.1787 is amended by revising paragraph (a)(1) to read as follows:

§ 95.1787 GMRS additional requirements.

* * * * *

(a) * * *

(1) Digital data transmissions may contain location information, or requesting location information from one or more other GMRS or FRS units, or containing a brief text message to another specific GMRS or FRS unit. Digital data transmissions may be initiated by a manual action of the operator or on an automatic or periodic basis, and a GMRS unit receiving an interrogation request may automatically respond with its location.

* * * * *

11. Section 95.2503 is amended by revising the definition of *Medical implant transmitter* to read as follows:

§ 95.2503 Definitions, MedRadio.

* * * * *

Medical implant transmitter. A MedRadio transmitter in which both the antenna and transmitter device are designed to operate within a human body for the purpose of facilitating communications from a medical implant device.

* * * * *

12. Section 95.2509 is amended by revising the paragraph (e)(2) to read as follows:

§ 95.2509 MBAN registration and frequency coordination.

* * * * *

(e) * * *

(2) If the MBAN is within line-of-sight of an AMT receive facility, the MBAN frequency coordinator shall achieve a mutually satisfactory coordination agreement with the AMT frequency coordinator prior to the MBAN beginning operations in the band. Such coordination agreement shall provide protection to AMT receive stations consistent with International Telecommunication Union (ITU) Recommendation ITU-R M.1459, "Protection criteria for telemetry systems in the aeronautical mobile service and mitigation techniques to facilitate sharing with geostationary broadcasting-satellite and mobile-satellite services in the frequency bands 1 452-1 525 and 2 310-2 360 MHz," May 2000, as adjusted using generally accepted engineering practices and standards that are mutually agreeable to both coordinators to take into account the local conditions and operating characteristics of the applicable AMT and MBAN facilities, and shall specify when the device shall limit its transmissions to segments of the 2360-2390 MHz band or must cease operation in the band. This ITU document is incorporated by reference into this section with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the Federal Communications Commission must publish a document in the FEDERAL REGISTER and the material must be available to the public. Copies of the recommendation may be obtained from ITU, Place des Nations, 1211 Geneva 20, Switzerland, or online at *http://www.itu.int/en/publications/Pages/default.aspx.* You may inspect a copy at the Federal Communications Commission, 445 12th Street, SW., Washington, DC 20554, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. "Generally accepted engineering practices and standards" include, but are not limited to, engineering analyses and measurement data as well as limiting MBAN operations in the band by time or frequency.

13. Section 95.2533 is amended by revising paragraph (e)(2) to read as follows:

§ 95.2533 Prohibited MedRadio uses.

* * * * *

(e) * * *

(2) A non-radio frequency actuation signal generated by a device external to the body with respect to which the MedRadio implant or body-worn transmitter is used.

14. Section 95.2557 is amended by revising paragraphs (b) and (c) to read as follows:

§ 95.2557 MedRadio duration of transmissions.

* * * * *

(b) MedRadio transmitters may transmit in the 401–406 MHz band in accordance with the provisions of § 95.2559(b)(2) and § 95.2559(b)(3) for no more than 3.6 seconds in total within a one hour time period.

(c) MedRadio transmitters may transmit in the 401–406 MHz band in accordance with the provisions of § 95.2559(b)(4) for no more than 360 milliseconds in total within a one hour time period.

* * * * *

15. Section 95.2559 is amended by revising paragraph (a)(6), paragraph (a)(6)(iii) and (f) to read as follows:

§ 95.2559 MedRadio channel access requirements.

* * * * *

(a) * * *

(6) When a channel is selected prior to a MedRadio communications session, it is permissible to select an alternate channel for use if communications are interrupted, provided that the alternate channel selected is the next best choice using the above criteria. The alternate channel may be accessed in the event a communications session is interrupted by interference. The following criteria must be met:

(i) * * *

(ii) * * *

(iii) In the event that this alternate channel provision is not used by the MedRadio system, or if the criteria in sub-paragraphs (i) and (ii) above are not met, a channel must be selected using the access criteria specified in paragraphs (a)(1) through (a)(5) of this section.

* * *

(f) *Requirements for MBANs.* * * *

* * * * *

16. Section 95.2569 is amended by revising paragraph (c) to read as follows:

§ 95.2569 MedRadio field strength measurements.

* * * * *

(c) For a MedRadio transmitter intended to be implanted in a human body, radiated emissions and M-EIRP measurements for transmissions by stations authorized under this section may be made in accordance with an FCC-approved human body simulator and test technique. Guidance regarding dielectric parameters for the tissue-equivalent material can be found in the Office of Engineering and Technology (OET) Laboratory Division Knowledge Database (KDB).

17. Section 95.2573 is amended to read as follows:

§ 95.2573 MedRadio authorized bandwidths.

Each MedRadio transmitter type must be designed such that the MedRadio emission bandwidth (as defined in §95.2503) does not exceed the applicable limits set forth in this section.

(a) For MedRadio transmitters operating in the 402-405 MHz band, the maximum MedRadio emission bandwidth is 300 kHz. Such transmitters must not use more than 300 kHz of bandwidth (total) during a MedRadio communications session. This provision does not preclude full duplex or half duplex communications provided that the total bandwidth of all of the channels employed in a MedRadio communications session does not exceed 300 kHz.

(b) For MedRadio transmitters operating in the 401-401.85 MHz band or the 405-406 MHz band, the maximum MedRadio emission bandwidth is 100 kHz. Such transmitters must not use more than 100 kHz of bandwidth (total) during a MedRadio communications session. This provision does not preclude full duplex or half duplex communications provided that the total bandwidth of all of the channels employed in a MedRadio communications session does not exceed 100 kHz.

(c) For MedRadio transmitters operating in the 401.85-402 MHz band, the maximum MedRadio emission bandwidth is 150 kHz. Such transmitters must not use more than 150 kHz of bandwidth (total) during a MedRadio communications session. This provision does not preclude full duplex or half duplex communications, provided that the total bandwidth of all of the channels employed in a MedRadio communications session does not exceed 150 kHz.

(d) For MedRadio transmitters operating in the 413-419 MHz, 426-432 MHz, 438-444 MHz or 451-457 MHz bands, the maximum MedRadio emission bandwidth is 6 MHz.

(e) For MedRadio transmitters operating in the 2360-2400 MHz band, the maximum MedRadio emission bandwidth is 5 MHz.

(f) Lesser emission bandwidths may be employed, provided that the unwanted emissions are attenuated as provided in §95.2579. See also §95.2567 regarding maximum radiated power limits, §95.2565 on frequency accuracy, §95.2569 on field strength measurements, and §95.2585 on RF exposure.

18. Section 95.2579 is amended by revising paragraph (c)(1), paragraph (d), paragraph (d)(1)(i) and (ii), and paragraph (g) to read as follows:

§ 95.2579 MedRadio unwanted emissions limits.

* * * * *

(c) * * *

(1) 20 dB, on any frequency within the 402–405 MHz band that is more than 150 kHz away from the center frequency of the MedRadio channel the transmission is intended to occupy;

(2) * * *

(d) *Attenuation requirements, 401–402 MHz, 405–406 MHz.* For MedRadio transmitter types designed to operate in the 401–402 MHz band or 405–406 MHz band, the power of unwanted emissions must be attenuated below the maximum permitted transmitter output power by at least:

(1) * * *

(i) More than 75 kHz away from the center frequency of the MedRadio channel the transmission is intended to occupy if the MedRadio transmitter type is operating on a frequency between 401.85 and 402 MHz; or,

(ii) More than 50 kHz away from the center frequency of the MedRadio channel the transmission is intended to occupy and 100 kHz or less below 401 MHz or above 406 MHz.

* * * * *

(g) *Measurements.* Compliance with the limits in paragraphs (c), (d) and (e) of this section is based on the use of measurement instrumentation using a peak detector function with an instrument resolution bandwidth approximately equal to 1.0 percent of the emission bandwidth of the device under measurement.