

Equipment Filing Considerations for Various Part 95 New Rules

Office of Engineering and
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NOTE: Corrections made following the presentation



Overview

- Summarize key items and transition dates for equipment authorization of FRS, GMRS, MURS and combination or multi-rule devices per the Part 95 update Report and Order FCC 17-57*
 - GMRS-FRS combination equipment
 - FRS combination equipment with other than GMRS
 - GMRS general and combination equipment with other than FRS
- Identify KDB Publications in-process for near-term changes
- Identify new equipment class for Part 95 vehicular radars
- See also the other Part 95 presentations in this conference:
 - T. Derenge on the Part 95 overall-update rulemaking
 - J. Prime on the Part 95 radar service rulemaking

* docket no. 10-119; 32 FCC Rcd 4292-4405; 82 FR 41096-41144, Aug. 29, 2017



GMRS-FRS Combined Eqpt (1)

- New grants are not allowed for hand-held portable equipment having a combination of GMRS (95E) and FRS (95B) transmitters (or transmitting modes) [95.1761(d)][†]
- Marketing of any GMRS-FRS combination equipment is not permitted **as of Sep. 30, 2019** [95.1791(a)]^{††}
 - Per the next slide, some legacy GMRS-FRS equipment may qualify for permissive change filing to permit continued marketing

[†] Effective Dec. 27, 2017

^{††} marketing = manufacture, import, sell, offer for sale



GMRS-FRS Combined Eqpt (2)

- For existing GMRS-FRS (95A-95B) combination equipment intended for marketing beyond Sep. 2019:
 - Form-731 equipment classes FRF, FRE, FRT, FRB
 - If device technical and operating parameters qualify (max. power 2 W in 462 MHz and 0.5 W in 467 MHz, max. bandwidth 11K3, etc.), Class II permissive change (C2pc) [2.1043(b)(2)] may be used to change Form-731 line-entries from 95A to 95B
 - C2pc filings must include full compliance descriptions and demonstrations under the new 95B rules (see next slide) for the formerly-95A transmitting modes
- Devices with other equipment classes and rule part combinations generally need case-by-case consideration by OET Lab (via KDB inquiry) to determine whether Class II permissive change or new FCC ID might apply



FRS General Filing Contents

- FRS portable devices—minimum rules for application test data and compliance supporting information:
 - Basic requirements: 2.911(c), 2.1033(c)(3), 2.1033(c)(14) [2.1046 through 2.1057], 1.1307, 2.1093; 2.947(g)[†]
 - pre FCC-17-57:
 - 95.193(b), 95.193(e), 95.194(c), 95.194(d), 95.603(d), 95.626, 95.631(d), 95.633(c), 95.635(a), 95.635(b)(1)(3)(7), 95.637(a), 95.639(d), 95.645(a), 95.647, 95.649, 95.653
 - post FCC-17-57:
 - 95.349, 95.361, 95.377, 95.381, 95.385, 95.391(c), 95.393, 95.519, 95.533, 95.561, 95.563, 95.565, 95.567, 95.571, 95.573, 95.575, 95.577, 95.579, 95.587^{††}
- Similar pre- and post-FCC-17-57 application contents apply for GMRS portable devices

[†] New paragraph 2.947(g) added at 82 FR 50828, Nov. 2, 2017; effective Nov. 2, 2017; FCC 17-93; docket no. 15-170.

§ 2.947(g) For each technical requirement in this chapter, the test report shall provide adequate test data to demonstrate compliance for the requirement, or in absence of test data, justification acceptable to the Commission as to why test data is not required.

^{††} New review and approval uniform guidance to be provided for example for 95.587(c) *Digital data transmissions*.



FRS Combination Equipment

- New grants are not allowed for hand-held portable equipment having an FRS transmitter in combination with transmitter(s) (or transmitting modes) operating under other subparts of Chapter I (FCC) of Title 47 [95.561(c)]†
 - Except combination with Part 15 transmitter(s) allowed
 - For example, new grants for FRS and Part 80 hand-held portable devices are not allowed
- Marketing of FRS hand-held portable equipment also containing other licensed or licensed-by-rule transmitter(s) [other than Part 15 intentional radiator(s)] is not permitted as of Sep. 30, 2019 [95.587(e), 95.591]††
 - Case-by-case consideration by OET Lab (via KDB inquiry) is generally needed to determine whether some type of C2pc qualifies to allow continued marketing of existing combination products

† Effective Dec. 27, 2017

†† marketing = manufacture, import, sell, offer for sale



GMRS Equipment (1)

- New grants are not allowed for equipment having a GMRS transmitter in combination with transmitter(s) (or transmitting modes) operating under a radio service or on frequencies where equipment certification is not required [95.1761(c)][†]
 - TCBs shall confirm filings show no evidence of non-authorized frequencies, and have specific explanation of 95.1761(c) compliance [2.947(g)]
- For example, new grants are not allowed for GMRS (95E) equipment also transmitting on:
 - Any U.S. or international amateur radio frequencies ^{††}
 - Any non-U.S. land-mobile frequencies

[†] Effective Dec. 27, 2017

^{††} [Background info FYI provided in NOTES page at end of this file.](#)



GMRS Equipment (2)

- New grants under GMRS Part 95 Subpart E (95E) are not allowed for hand-held portable equipment capable of complying with FRS Part 95 Subpart B (95B) rules (power, bandwidth, etc.) [95.1761(e)][†]
- For existing 95A GMRS grants (other than GMRS-FRS combination equipment as discussed above):
 - Changing from 95A to 95E on Form-731 listing and updating compliance information contents is generally not required (unless some technical item triggers a permissive change)
 - Some multi-rule combinations or specific devices may need case-by-case consideration by OET Lab via KDB inquiry
- Operating in GMRS requires equipment granted for GMRS [95.1761(a), 95.335, 95.361]

[†] Effective Dec. 27, 2017



MURS Equipment

- New grants are not allowed for equipment having a MURS (95J) transmitter in combination with transmitter(s) (or transmitting modes) operating under other subparts of Chapter I (FCC) of Title 47 [95.2761(c)]
 - Except combination with Part 15 transmitter(s) allowed



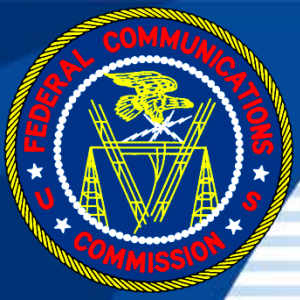
Part 95 Radar Service Devices

- Part 95 radar equipment requires certification (95.3361)
- EIRP limits, unwanted emissions limits, and RF exposure evaluations for all 76-81 GHz radars are the same as previously authorized/required for 76-77 GHz vehicular and FOD detection radars under the former Part 15 rules
- New rule sections (Part 95 Subpart M):
 - 95.3361-95.3385 (95M)
- New e-filing equipment class:
 - VRD - Part 95 Vehicular Radar



Part 95 KDB Pubs. In-Process

- Updates pending (rule section number changes, etc.):
 - 149672 (combination and multi-rule devices)
 - 550599 (MBAN)
 - 617965 (MedRadio test setup)
 - 703967 (WMTS)
- Target merge/supersede or expire:
 - 172838 (GMRS-FRS combination)
 - 593599 (spread-spectrum in WMTS)
 - 711889 (GMRS voice scrambling)
 - 771134 (MedRadio power—*cf.* 971168, ANSI C63.26)
 - 832856 (FRS-Part 80 combination)



QUESTIONS?

Test labs and applicants and TCBs
please let us know in case of any other
KDB Publication change requests



NOTES

- The slide GMRS Equipment (1) paraphrases 95.1761(c), whose actual text is:
 - "... No GMRS transmitter will be certified for use in the GMRS if it is equipped with the capabilities to operate in services that do not require equipment certification, such as the Amateur Radio Service. ..."
- Per n149 of FCC 17-57, the preceding serves to "clarify" the preceding/replaced 95.655(a):
 - n149 Several commenters are concerned that the proposal to prohibit combination radios would prevent GMRS licensees from using surplus Part 90 equipment in GMRS. ... This is not our intent. We will continue to certify equipment that meets the respective technical standards for Part 90 (land mobile) and Part 95 (GMRS) in both services, if requested. However, we are amending the language in new section 95.1761(c) to clarify the requirement in old section 95.655(a) that Part 95 GMRS radios will not be certified if they are equipped with the capabilities to operate in services that do not require equipment certification, such as the Amateur Radio Service.
- Old section 95.655(a):
 - "... no transmitter will be certificated for use in the GMRS if it is equipped with a frequency capability not listed in § 95.621, unless such transmitter is also certificated for use in another radio service for which the frequency is authorized and for which certification is also required. (Transmitters with frequency capability for the Amateur Radio Services and Military Affiliate Radio System will not be certificated.)"
- Concerning a question asked "why are GMRS and Amateur combination products prohibited," for reference the predecessor of 95.655(a) originated as 95.651(a) per FCC 88-318*; the following therefrom indicates the intent.
 - 13. Discussion. We concur with the majority of commenters that supported the proposal to limit licensing of GMRS systems to individuals. As a personal radio service, GMRS should not be compromised for the benefit of commercial users at the expense of personal users. Business communication needs, particularly the needs of large-volume dispatch operations, should be satisfied through the use of communications alternatives other than GMRS. ...
 - 16. We seek to discourage the proliferation of what are typically Part 90 uses of the GMRS. The GMRS is not and should not become the "other" Business Radio Service. ...
 - 17. Schlueter contended that the personal user communications we seek to address more fully in the GMRS should instead be accommodated in the Part 97 Amateur Radio Service. We do not agree. Many types of personal communications permitted in the GMRS are prohibited in the amateur service. Personal communications in the GMRS often include conducting personal business. Business communications, however, are prohibited in the amateur service. The amateur service is for self-training, intercommunication and technical investigation carried on by technically qualified persons, solely with a personal aim and without pecuniary or business interests. Thus the amateur service is unsuitable for typical GMRS personal communications that involve business matters such as discussions of purchases. It would be unreasonable and illogical to require all members of a family to pass amateur operator license examinations in order to conduct only a portion of the intercommunications they now conduct in the GMRS.
 - 42. We share the concerns of SIRSA, EIA-land Mobile and others with respect to possible proliferation of illegal user-programmable equipment in the private land mobile services. ... Therefore, we intend to take two additional steps to assure against the proliferation of unauthorized user-programmable equipment. First, we will not type accept a GMRS transmitter that can transmit in spectrum assigned to another service unless it is also type-accepted for use in that other service. ...
 - FOOTNOTE 2 We use the term "individual" throughout this discussion to refer to a human being -- that is, one man or woman. (Children under the age of eighteen are not eligible in the GMRS, and would continue to be ineligible for a GMRS system license under the rules we are adopting in this document. They can, however, be station operators in a GMRS system.

* FCC 88-318; docket no. 87-265; 3 FCC Rcd 6554-6571; 53 FR 47711-47718; Nov. 25, 1988.