



Use of Maryland “Direct” Frequencies Standing Operating Procedure

1 Purpose

To establish the operating procedures regarding permitted simplex, or “*talk-around*”, communications on designated radio frequencies. These simplex frequencies are known as “**MD Direct**” frequencies. The principle purpose of the MD Direct frequencies is to provide an additional layer of redundancy in the highly unlikely event that a portion of the Maryland FiRST system is disabled. Because system disablement is a remote possibility, there are other permitted uses of the MD Direct frequencies.

2 Scope

This standard operating procedure applies to all primary Maryland FiRST system users as interoperability users not authorized to operate on MD Direct frequencies. Maryland FiRST Interoperability (only) users should utilize a nationwide interoperability channel in the direct mode when needed to support direct (simplex) inter-agency public safety communications. MD Direct frequencies may be installed on primary user mobile, portable, and control station radios.

3 Authority

The Statewide Interoperability Radio Control Board has the authority to establish Standard Operating Procedures, Quality of Service Standards and Maintenance Guidelines for the Maryland FiRST Radio System in accordance with the Annotated Code of Maryland, Public Safety Article, § 1-501-1-503.

4 Background

Many public safety communications systems employ a limited number of radio frequencies for direct or “*talk-around*” use. First responders typically employ “*talk-around*” channels for a variety of public safety purposes consistent with FCC rules. MD Direct frequencies provide such a capability for Maryland FiRST primary users consistent with generally accepted public communications practices.

5 Policy Statement

Primary users of the Maryland FiRST statewide public safety communications system may operate temporarily and non-exclusively on one of three designated 700 MHz radio frequencies in the “*direct*” mode within Maryland as needed to support first responder operations. The term



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“direct” means that mobile and portable radios as well as control stations programmed with a MD Direct frequency are not communicating through the Maryland FIRST base station infrastructure, but directly on a radio-to-radio basis.

6 Supporting Rules/Procedures

- MD DIRECT OPERATIONS ARE LIMITED TO AREAS WITHIN THE STATE MARYLAND
- Because 700 MHz frequencies are used extensively in Maryland, Northern Virginia, and the District of Columbia, no one frequency can be used statewide without the risk of interference.
 - MD DIRECT MAIN is the primary frequency and may be used in the mainland counties of the State of Maryland except in Montgomery and Prince George’s.
 - MD DIRECT NCR should be used only in Montgomery and Prince George’s Counties to avoid interference to other licensed stations.
 - MD DIRECT EAST is to be used on the Eastern Shore (not including Cecil County).
 - MD DIRECT MAIN operates on 770.73125 MHz and is licensed as [WQYK328](#).
 - MD DIRECT NCR operates on 769.20625 MHz and is licensed as [WPTZ805](#).
 - MD DIRECT EAST operates on 769.43125 MHz and is licensed as [WPTZ805](#).
- MD Direct frequencies are always operated in the “simplex” mode using the \$293 Network Access Code (“NAC”) for transmitting and \$F7E for receiving. The effective radiated power (“ERP”) of these frequencies may not exceed 100 watts¹ unless the use is by a control station which may operate up to 200 watts ERP². The emission type is the standard P25 “8K10F1E.”
- ANALOG OPERATION IS NOT PERMITTED ON THESE FREQUENCIES³
- Encrypted operations are permitted on MD Direct frequencies when necessary provided that standard encryption codes are used.
- Use of the MD Direct frequencies is as needed on a “first come, first served” basis. Prior to using a MD Direct frequency, users should monitor the frequency to ensure that it is available for operation. The MD Direct frequencies, which are not nationwide interoperability channels, are available for first responder use on an itinerant and temporary basis. MD Direct

¹ See 47 CFR § 90.541(c)

² See 47 CFR § 90.541(b)

³ See 47 CFR §90.535



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frequencies have a limited range⁴. Plain language should be used at all times unless such use is contradicted by agency or governmental policy.

Examples of anticipated use are depicted below.

- In the highly unlikely event of a catastrophic infrastructure failure that prohibits user communications through the Maryland FIRST system, a MD Direct frequency is available in all counties and cities for use until the system is restored to normal operations.
- At any time an Incident Commander or Communications Unit Leader (“COML”) determines that direct non-repeated on-scene communications in small geographical areas are needed.
- When the use of direct communications are temporarily needed on an “ad hoc” basis to support a public safety operational mission; e.g., surveillance, deep in-building fireground or rescue communications, etc.
- All other uses meeting the definition of public safety⁵.

7 Responsibilities

- All Maryland FIRST users are responsible for following the policy/procedures contained in this SOP.
- The Director of the Radio Control Board may approve temporary changes or modifications to this policy to ensure the security of the system or to accommodate an emergency condition. Any permanent changes to this policy require the approval of the Radio Control Board.

8 Contact Information

The Maryland FIRST Agency Coordinator/Customer Liaison may be contacted at:
md-first.radio@maryland.gov

⁴ When used exclusive with portable radios, the effective operating range may be no greater than a mile or less. Mobile to mobile use may provide communications within several miles. All MD Direct coverage is relative to terrain and other environmental factors.

⁵ See 47 USC §337(f)(1). The term “public safety services” means services the sole or principal purpose of which is to protect the safety of life, health, or property.



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The Maryland FIRST System Manager may be contacted at:
MDFirstSystem.Manager@maryland.gov

9 Approval

This SOP was reviewed by the Maryland FIRST Operations Group on, November 28, 2018 and was approved by the Statewide Interoperability Radio Control Board, by majority vote on, December 12, 2018.

Norman J. Farley
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