SOUTH PORTLAND FIRE DEPARTMENT

STANDARD OPERATING GUIDELINES

SOG #:	6.117	**Effective Date:**	2/13/2024
Title:	Radio Use & Communications	**# of pages:**	7
Category:	General Operations	**Classification:**	Yellow

1. PURPOSE: To standardize the use of and communications with portable and mobile radios in the South Portland Fire-Rescue Department.

2. PROCEDURES:

Definitions:

- **800 MHz Mobile Radio** - Apparatus mounted radio used for field communications, as a stand-alone unit or with a VRS, for units within the SPFD and PFD.
- **800 MHz Portable Radio** -Hand held radio used for in-field communications**.**
- **Operations (OPS) Channel** -Talk group assigned by a dispatcher to a unit or group of units responding to an emergency or operating at an event.
- **Digital Vehicle Repeater System (DVRS) –** Mobile device fixed to designated Fire and Police apparatus that can be used to repeat an 800 MHz or VHF signal from units in the field.
- **VHF Mobile Radio** - Apparatus mounted radio used for field communications, as a stand- alone unit or in conjunction with a VRS, primarily with mutual aid communities**.**
- **Talk Group** - A group of frequencies utilized by the computerized radio system to allow inter-unit communication in the field.
- **Zone** - Bank of talk groups that allow different types of communication access to the radio system.

Background: In 2011, the South Portland Fire Department placed into service a, trunked, 800MHz radio system that is shared with the Portland Fire Department. In 2018, that system was upgraded to digital. Each department maintains a separate primary dispatch channel and shares 10 Operations channels.

Guidelines:

800 MHz Mobile Radios

Each apparatus in the South Portland Fire-Rescue Department is equipped with an 800 MHz mobile radio. For operations within the City of South Portland and City of Portland, companies will use the 800MHz radio for in-field communications. Upon receipt of an alarm, the dispatcher will assign the unit(s) a channel to be used for the duration of

the incident.

In general, for low acuity calls, the dispatcher will assign units to operate on SP *Prime*. This will include most medical calls and most still alarms. For higher acuity calls, the dispatcher will assign units to operate on an OPS channel. This will include box alarms, echo level medical calls, and specialty responses (for example Marine responses). An incident commander may also request the assignment of an OPS channel as needed.

When initiating their response, companies will switch to the assigned channel and remain on that channel while operating at that incident. When receiving an alarm while in quarters, units will acknowledge receipt of the alarm on their assigned channel. When receiving an alarm from the road, units will acknowledge receipt on SP *Prime* and acknowledge that they have received their channel assignment if so assigned.

For incidents where an OPS Channel has been assigned, dispatchers will announce the channel on both SP *Prime* and the assigned OPS Channel once units have acknowledged the call to ensure all units are on the correct channel.

Upon clearing an incident where an OPS Channel has been assigned, companies will notify the dispatcher that they are "returning to prime" and switch their radios to SP *Prime.*

800 MHz Mobile Radio Programming:

Talk Group	Zone 1 (DVRS)	Zone 2 (VHF)	Zone 3 (DIRECT)
1	T SP Prime	In alphabetical	T SP Prime
2	T OPS 7		E OPS 7
3	T OPS 8		E OPS 8
4	T OPS 9		E OPS 9
5	T OPS 10		E OPS 10
6	T OPS 2		E OPS 2
7	T OPS 3		E OPS 3
8	T OPS 4		E OPS 4
9	T OPS 5		E OPS 5
10	T OPS 6		E OPS 6
11	T PFD PRIME		T PFD PRIME
12	T SPPD 1		SPPD 1
13	T PORT PD 1		PORT PD 1
14	T HOSPITAL		HOSPITAL
15	T JETPORT		MAYDAY
16	T MAYDAY		

Each zone provides the user with different features or different means to communicate. *Zone 1*

is the primary zone that will be used. *Zone 1* allows the user to communicate on the 800 MHz network and to activate the unit's DVRS (if equipped). *Zone* 2 consists of VHF channels and will allow communications to non-800MHz mutual aid communities (see VHF Mobile Radios below). VHF frequencies are listed in alphabetical order. Zone *3* is designed for use in the event of a catastrophic failure of the 800 MHZ system. *Zone 3* is of limited range and utilizes radio-to-radio communications similar to a "talk around" type systems. *Zone* 4 consists of a bank of channels to be used for EMA Operations. *Zone 5* consists of a separate bank of talk groups that can be used for training, *Zones 6 & 7* consist of County-wide frequencies.

Emergency Button

800 MHz mobile radios are equipped with an orange emergency button located on the face of the unit. Pressing this button activates an alarm in the communications center allowing the dispatcher to identify the unit in distress by its unique identifier. When the dispatcher recognizes the alarm, he or she will contact the unit to determine if an emergency exists and take appropriate action.

VHF Mobile Radios

Many apparatus in the South Portland Fire-Rescue Department are equipped with a separate VHF mobile radio. For operations in mutual aid communities other than Portland, the VHF radio can be used to communicate with the MA community dispatcher and in-field units. For apparatus equipped with a DVRS, the radio can be used in conjunction with the DVRS and 800 MHz portable radios to provide a gateway to communicate via portable radios to the MA dispatcher and in-field units (this is accomplished using the VRS and *Zone 1 #15* on the 800 MHz portables).

Also note that MA units entering either South Portland or Portland have been instructed to utilize one of 2 VHF channels for operations. Units engaged in coverage operations should be using the legacy SPFD VHF channel (154.430 MHZ). Units engaged at the scene of the incident that has initiated the need for MA should be using the legacy PFD VHF channel (154.205 MHZ). Both of these channels are programmed in the VHF radios.

If an SP Fire unit is assigned to a coverage operation for the City of Portland, FA may request that you use the legacy SPFD VHF channel as other MA coverage units will be assigned to that channel.

Digital Vehicle Repeater System

Most permanent, front line apparatus and reserve apparatus within the South Portland Fire Department are also equipped with Digital Vehicle Repeater Systems (DVRS). These systems link on-scene communications to the 800 MHz network or a Mutual Aid Community's network.

800 MHZ Portable Radios

800 MHz portable radios are programmed with numerous talk groups separated into six Zones that can be used for emergency and non-emergency communication primarily between other agencies on the 800 MHz network. *Zone 1* is the primary zone and allows the user access to the system via fixed repeaters. *Zone 2* allows the user to access the system directly through the

use of strategically placed fixed repeaters. *Zone 3* contains other city-wide channels, *Zone 4* contains a bank of channels to be used EMA Operations and *Zone 5* (not listed) contains a bank of channels shared by the Public Safety Agencies of South Portland and Portland. *Zone 6* (not listed) contains a bank of FCC required public safety channels.

Portable radios will routinely the fixed towers. Therefore, portable radios should routinely be kept in *Zone 1*. If operating outside of Portland or South Portland, personnel will need to utilize the DVRS and VHF Mobile radios to establish a communication link.

Upon receipt of an alarm, the dispatcher will assign the unit(s) an Operations Channel to be used for the duration of the incident. When initiating their response, members will switch their portable radios to the assigned OPS channel and remain on that channel while operating at that incident.

Portable Radio Programming:

On all Zones, the first talk group is T SP Prime which will access the network via the fixed towers and the last talk group is T MAYDAY.

Talk Group	Zone 1	Zone 2 (Direct)	Zone 3 (DVRS)	Zone 4
1	T SP Prime	T SP Prime	T SP Prime	T SP Prime
2	T OPS 7	E OPS 7	OPS 7	T SP PD 1
3	T OPS 8	E OPS 8	OPS 8	T CITYWIDE
4	T OPS 9	E OPS 9	OPS 9	T ELEC 1
5	T OPS 10	E OPS 10	OPS 10	T EVACUATION
6	T OPS 2	E OPS 2	OPS 2	T EMA 2
7	T OPS 3	E OPS 3	OPS 3	T EMA 3
8	T OPS 4	E OPS 4	OPS 4	T EMA 4
9	T OPS 5	E OPS 5	OPS 5	T EMA 5
10	T OPS 6	E OPS 6	OPS 6	T EOC
11	T PFD PRIME	T PFD PRIME	T PFD PRIME	T EMS DISASTER
12	T SPPD 1	T SPPD1	T SP PD 1	T CITY OPS 1
13	T SPPD 2	T SPPD 2	T SP PD 2	T CITY OPS 2
14	T HOSPITAL	T PPD 1	T HOSPITAL	T CITY OPS 3
15	VHF	JETPORT	VHF	UNPROGRAMMED
16	T MAYDAY	T MAYDAY	T MAYDAY	T MAYDAY

Notes on highlighted talk groups:

- *OPS 5 is normally reserved for emergencies at the Portland International Jetport and typically will only be assigned for incidents at that facility.*
- *The JETPORT talk group is accessible to many agencies operating at the Portland International Jetport. It is **not** the emergency OPS channel that will be assigned to unit(s) responding to the Jetport.*
- *MAYDAY would be used to move FG operations allowing for a members involved in a MAYDAY operation to have clear air.*

Each permanent firefighter shall have access to a portable radio for the duration of their shift and should have that radio with them while operating in the field. Each portable radio is programmed with a unique identifier and members should ensure that they have the correct radio for their riding assignment. Radios shall be assigned as follows:

Engines:

Radio	Assignment
Officer	**Officer/OC (Engine 48)**
Pump	**Driver (Engine 48 Truck)**
Pipe	**Firefighter (Engine 48 Pipe)**
Spare	**Firefighter (Engine 48 Spare)**

Ladders:

Radio	Assignment
Officer	**Officer/OC (Ladder 45)**
Truck	**Driver (Ladder 45 Truck)**
Roof	**Firefighter (Ladder 45 Roof)**
Spare	**Firefighter (Ladder 45 Spare)**

Ambulances:

Radio	Assignment
A4*X*	**Medic (Ambulance 41)**
Driver	**Driver (Ambulance 41 Driver)**

Portable radios may also be issued to officers for use off-duty and on call back. The Unit designations shall be a three digit number determined as follows:

- The first digit shall correspond to the department ID (4)
- The second digit shall correspond to the company to which the Officer is regularly assigned. i.e. 4, 5 or 8.
- The third digit shall correspond to the Officer's regularly assigned shift. i.e. 1,2,3 or 4

Spare batteries will be kept in bank chargers in each station. Personnel should rotate batteries as needed during their shifts.

Portable radios assigned to call company apparatus and reserve apparatus will be kept in charging units installed in the apparatus.

Emergency Button

Each portable radio is equipped with an orange emergency button located on the top of the unit, APX portable radios also have an orange emergency button on the remote speaker microphone. Pressing this button activates an alarm in the communications center allowing the dispatcher to identify the unit in distress by its unique identifier. Other portable radios operating on the same Ops Channel also receive an emergency alert and will display the ID of the activated unit. If the unit is known to be operating within a command structure (i.e. structure fire, haz-mat, MCI etc.) the dispatcher will notify the Incident Commander of the specific emergency activation. The Incident Commander will then initiate the appropriate on-scene actions.

If the unit is not operating within a formal command structure, (i.e. EMS) the dispatcher will contact the activated unit to determine if an emergency exists and take appropriate action.

Mutual Aid Companies

Mutual aid companies providing coverage to the city should be assigned to the South Portland Fire VHF frequency (154.430).

Mutual aid companies that are assigned directly to an incident, should be assigned to Portland VHF frequency (154.205). Dispatch should then create a patch between 154.205 and the fire ground OPS channel.

Language

All radio communications should be in plain English. Transmissions should typically be brief

and always polite.

3. REFERENCES:
   - 6.311

By Order Of:

Phil Selberg
Fire Chief