



# Scarborough Fire Department

## Scarborough, Maine



### Standard Operating Procedures

<b>Book:</b>	<b>Emergency Operations</b>
<b>Chapter:</b>	<b>Command Operations</b>
<b>Subject:</b>	<b>1600 –Radio Communications Policy</b>
<b>Revision Date:</b>	<b>3/17/2009 Revised 4/11/14, 3/7/19</b>
<b>Approved by:</b>	<i>B. Michael Thurlow</i>

#### PURPOSE

To establish safe and efficient procedures for routine and emergency radio communications.

#### POLICY

These procedures outline the use of assigned department radio frequencies for routine and emergency radio communications.

#### SCOPE

This procedure applies to all emergency and non-emergency radio communications conducted in association with the Scarborough Fire Department, Scarborough Dispatch, and mutual aid partners. The Scarborough Fire Department recognizes that effective communications is a critical link to providing emergency services and providing for the safety of responders.

#### DEFINITIONS

<b>4-0</b>	Pronounced "four-oh" - the radio call sign for Town of Scarborough Fire Dispatch (Dispatch).
<b>Banks/Zones</b>	A group of radio channels organized by channel type or location.
<b>Emergency Alert System</b>	Radio feature which allows an emergency signal to be transmitted sending an alert tone and alpha message to other on-scene radios and dispatch.
<b>Fire Primary</b>	Main (Primary) channel that is monitored and controlled by Dispatch utilized for the dispatching of all calls for service and routine radio traffic.
<b>Fire Tactical (TAC)</b>	A Simplex (Direct) channel that is used for on-scene communications.
<b>Fire VRS</b>	Channel which utilizes the VRS capability to repeat radio traffic from on-scene portable radios over the more powerful mobile radio transmitter on the Fire TAC frequency.

<b>Hot Buttons</b>	Programed buttons located on the mobile radio head that shortcut to preselected channels.
<b>Identifier</b>	A feature which transmits a unique alphanumeric identification assigned to each specific radio, which is displayed on the receiving radios. This allows for Dispatch as well as on-scene radios to view which radios are transmitting.
<b>Mobile Radio</b>	A hi-powered radio hard wired in a vehicle capable of transmitting at a range of 45-110 watts.
<b>Portable Radio</b>	A hand-held, battery operated radio that is limited to transmitting at 5 watts.
<b>Scan</b>	A feature which enables a radio to monitor multiple channels concurrently.
<b>Talk-Around</b>	A feature which allows for "line-of-site" direct communications by-passing repeater systems limiting the transmission to a small area (generally a 1.5 mile radius).
<b>VRS</b>	Vehicle Repeater System

**PROCEDURES**

- A. There are four “System Channels” in use for the Scarborough Fire Department located at the following channel positions:
  - a. **Fire Primary** - Main (Primary) channel that is a repeated channel monitored and controlled by Dispatch, utilized for the dispatching of all calls for service and routine radio traffic. Located at Channel 1 on all radios.
  - b. **Talk-Around** - Channel which by-passes the repeater on the Fire Primary frequency. Talk-Around allows units in close proximity to each other to utilize “line-of-site” communications. This channel will only be used for non-emergency situations such as training, building inspections, or special events. Located at Channel 2 on all radios.
  - c. **Fire Tactical (TAC)** - A non-repeated channel which is used in conjunction with the Vehicle Repeater System (VRS). The normal use of this channel is for units not yet on scene to monitor radio traffic and communicate with Incident Command operating on VRS. This channel can be used in the same manner as Talk-Around for non-emergency situations. Displayed as FIRE TAC, located at Channel 3 on all mobile radios, and Channel 15 on all portable radios.
  - d. **Fire VRS** - A channel which utilizes the VRS to repeat radio traffic from portable radios over the more powerful mobile radio transmitter utilizing the same frequency as Fire Tactical (TAC). This system is used for on scene communications between operating units and the Incident Commander (IC). Located at Channel 16 on all portable radios and activated by the repeater switch in the cab of apparatus for mobile radios.
- B. The Scarborough Fire Department utilizes multiple channel mobile and portable radio devices to communicate with mutual aid partners and other public safety agencies/partners. On all portable radios these channels are organized into 9 “zones” or “banks” in a consistent fashion as follows:
  - a. Zone 1 - “Local” - Normal mutual aid partners for specific districts
  - b. Zone 2 - “Metro” - Metro Chiefs Mutual Aid Departments
  - c. Zone 3 - “York” - York County Mutual Aid Departments
  - d. Zone 4 - “EMA-1” - Scarborough Interoperability Channels

- e. Zone 5 - “EMA-2” - Regional Interoperability Channels
  - f. Zone 6 - “Countywide 1” - CCEMA Interoperability Channels
  - g. Zone 7 - “Countywide 2” - CCEMA Interoperability Channels
  - h. Zone 8 - “Marine” - Marine Operations Channels
  - i. Zone 9 - “Scar” - Scarborough town wide Channels
- C. On all department portable radios, the four “System Channels” described in Section A are located in the same position in all nine zones or banks for consistency and to assure you will get to them regardless of what bank is selected:
- a. Channel 1 - Fire Primary
  - b. Channel 2 - Talk-Around
  - c. Channel 15 - Fire TAC
  - d. Channel 16 Fire VRS
- D. Fire Primary will be utilized for the dispatching of all calls for service and all routine radio traffic. This is the “primary” radio channel that is monitored and controlled by Dispatch.
- E. EMS calls, single engine calls, and routine or non-emergency type calls shall normally respond and operate on Fire Primary unless reassigned by Dispatch or Command.
- a. The first unit with VRS capabilities shall activate their VRS when arriving on scene of any call. This shall be verbalized with dispatch in the following manner:  
EXAMPLE: “Ambulance two to 4-0, on the scene activating VRS.”
  - b. The activation of the VRS is critical as it allows for the use of the Emergency Alert System (EAS) of the portable radios. Units can continue to utilize Fire Primary for on scene communications. Any time that radio coverage becomes questionable, portables radios can switch to Fire VRS (Channel 16) and utilize the VRS to reach Dispatch.
- F. All multiple unit calls such as Full Box Alarms or Motor Vehicle Accidents the Fire VRS system shall be utilized for on-scene communications.
- G. Units dispatched on multiple unit calls will respond and remain on Fire Primary until an on scene unit has activated the VRS. This should normally occur in conjunction with the first arriving unit size-up report and/or establishment of Incident Command. In the event that the first unit is not equipped with a VRS, the first unit shall request that another unit complete this responsibility.

EXAMPLE:

**First Arriving Unit** – “Engine 1 to 4-O, on the scene 123 First Avenue with a 2-story single family dwelling with smoke showing from the first floor. Establishing First Avenue Command, activating VRS.

**Dispatch** – (ALERT TONE) “Attention units responding to 123 First Avenue, Engine 1 on the scene with a 2-story single family dwelling with smoke showing from the first floor. Establishing the First Avenue Command, activating VRS, mobile radios to Fire TAC, portable radios to Fire VRS.”

- a. In addition to the first arriving suppression apparatus, the following units will also activate their VRS **when arriving on scene**:
  - i. First arriving ambulance
  - ii. First arriving command officer (Normally Car 7)
- b. The scan feature on the mobile radio must be turned off prior to activating the VRS.
- c. It is extremely important that the VRS is only activated when arriving on the scene. **Activating a VRS prior to arrival renders the VRS inoperable and can cause a “no comms” situation.**

- d. Units still responding shall use the “hot button” on the mobile radio head to switch to Fire TAC (labeled as channel 3). **Activating the VRS prior to arrival renders the VRS inoperable and can cause a “no comms” situation.**
  - e. All portable radios on scene are to switch to Channel 16 Fire VRS (Channel 15, Fire TAC, will not work properly with the VRS).
  - f. Any units leaving the scene such as ambulances transporting patients, must deactivate the VRS and communicate with Dispatch on Fire Primary.
- H. Incident Command will utilize Fire VRS to direct responding apparatus.
- I. On scene incident operations shall be conducted on the Fire VRS channel, and to the extent possible, communications with Dispatch will be conducted on Fire Primary.
- J. Once a formal Incident Command Post (ICP) has been established, the Incident Commander (IC) will be responsible for monitoring Fire VRS and Fire Primary. Early assignment of a command aid to assist with monitoring communication must be considered.
- K. Additional frequencies available and commonly used are:
- a. State Fire - Normally assigned to the Staging Officer for management of unassigned resources at an incident.
  - b. Chief 280 - Normally assigned to the Water Supply Officer to communicate directly with apparatus involved in a tanker shuttle or large scale pumping operation.
  - c. Chief 265 - On-Scene operations channel that can be assigned as appropriate by the IC.
  - d. EMS-1 - On-scene Medical operations channel that can be assigned as appropriate by the IC.
  - e. EMS-2 - On-scene Medical operations channel that can be assigned as appropriate by the IC.
- L. Mobile and portable radios are equipped with a scan feature for monitoring multiple frequencies at once. This feature is **not to be used while units are assigned to an incident.** On mobile radios this feature must be turned off before activating the VRS.
- M. Each portable radio is equipped with an electronic identifier. This identifier consists of embedded information, unique to each radio, which is sent to receiving radios with each transmission. This signal enables a display of the transmitting radio’s identifier such as:
- a. AMB 2 - PORT 2 (Ambulance 2, Portable 2)
  - b. ENG 7 - PORT 3 (Engine 7, Portable 3)
  - c. SQ. 7 - PORT 2 (Squad 7 - Portable 2)
- N. When communicating messages critical to safety of personnel or life threatening situations the following terms should be used.
- a. “Urgent” is a term that shall be used to “clear” the channel and alert the receiving unit of information indicating a dangerous condition.

EXAMPLE:

**Engine 7** – “Engine 7 to Command URGENT”

**Command** – “Engine 7 go ahead with the urgent”

**Engine 7** – “Engine 7 to Command alert all personnel of live electrical wires on side alpha”

- b. “Emergency Traffic” is a term that shall be used to “clear” the channel and alert the receiving unit (usually Command or Dispatch) that an incident has occurred requiring immediate action such as an injury to response personnel.

EXAMPLE:

**Engine 5** – “Engine 5 EMERGENCY TRAFFIC”

**Command** – “Engine 5 go ahead with the emergency traffic”

**Engine 5** – “Engine 5 to Command need EMS for an injured firefighter at Engine 5”

- c. “MAYDAY” is a term that shall be used to “clear” the channel and alert the receiving unit (usually Command or Dispatch) that a member or members are in a life threatening situation needing immediate assistance and unable to evacuate themselves. The procedures to follow in a MAYDAY situation are outlined in SOP#3640 MAYDAY Procedures.
- O. Emergency Alert System (EAS) - All department portable radios are equipped with EAS which enables the radio to send an emergency signal to Dispatch and other portable radios operating on the VRS.
- a. The EAS should only be utilized when attempts to alert command or dispatch of a life threatening emergency have been unanswered.
    - i. This system may also be used when a silent distress call is appropriate such as EMS response with extreme danger to personnel such as displayed weapons or a hostile environment (listed in section f. below).
  - b. The EAS is activated by pressing and holding the orange button on the top of the radio or on the remote speaker microphone for 3 seconds.
  - c. When the EAS is activated the emergency signal is automatically transmitted through the VRS over Fire TAC regardless of the channel selected on the portable radio. **Hence the critical need for the VRS to be activated on every call.**
  - d. Dispatch consoles and radios assigned to chief officers will emit an audible emergency signal and display the identifier of the activated radio.
  - e. Activating the EAS will automatically lock open the microphone for 15 seconds. This allows for:
    - i. Transmission of emergency information such as the LUNAR process outlined in SOP#3640 MAYDAY Procedures.
    - ii. Dispatcher to monitor radio traffic for active threats such as personnel confronted with a hostile environment (fight or displayed weapons).
    - iii. Personnel to call for help in a silent manner when faced with a physical threat.
  - f. When an EAS signal has been received during non-firefighting incident(s) such as an EMS call, dispatchers shall:
    - i. attempt contact with the unit by transmitting the following message over both Fire Primary and Fire TAC:
      1. “4-0 to (*Unit with activated EAS*) verify your EAS”
    - ii. if no contact in 3 seconds repeat the message.
      1. “4-0 to (*Unit with activated EAS*) verify your EAS”
    - iii. if no contact in 3 seconds transmit:
      1. “4-0 to (*Unit with activated EAS*) your EAS is confirmed”
    - iv. immediately send:
      1. Police units
      2. closest available fire unit(s)
      3. Car 7
  - g. When an EAS signal has been received during firefighting operations dispatchers shall:
    - i. Verify that the Incident Commander (IC) has received the signal and identified the radio activating the EAS.
    - ii. Monitor the channel and relay pertinent information to the IC.

- iii. Respond to any request from the IC to reassign operational channels outlined in SOP#3640 MAYDAY Procedures.
  - h. The IC will initiate appropriate procedures in accordance with SOP#3640 MAYDAY Procedures.
  - i. To “clear” an inadvertent activation of the EAS, do one of the following
    - i. Press and hold the orange button on the top of the radio or on the remote speaker microphone for 2 seconds.
    - ii. Briefly turn the radio off and then back on.
- P. In compliance with the National Incident Management System (NIMS) the Scarborough Fire Department has adopted the use of “plain language” for all communications.
- a. The use of 10-codes, acronyms, and unclear terminology shall be avoided.
- Q. General Radio Procedures and Etiquette - In an effort to establish consistency, control the amount of radio traffic, and provide clear accurate communications the following general radio procedures and etiquette shall be followed:
- a. Utilize the “me-to-you” method of transmission. such as:
    - i. “Engine 1 to 4-0”
    - ii. “Division 2 to Command”
  - b. Listen before transmitting to make certain the channels are clear.
  - c. When advising that a unit is responding, at scene, in service, or in quarters give your message in a single transmission.
  - d. When any unit goes enroute or responding on a call they shall transmit their staffing levels.
  - e. When multiple units are responding from a single station they should be reported in a single transmission such as:
    - i. “Ladder 1 responding with 2, Engine 6 with 1, and Ambulance 2 with 2”
  - f. Personnel responding in other than dispatched apparatus, such as staff and/or private vehicles, should refrain from tying up the radio unnecessarily.
    - i. The I am Responding system should be used to indicate your response.
    - ii. There is no need to report on a “column of smoke”. This is a normal condition when dispatched to a fire.
    - iii. When in doubt, use the acronym “DIM-WIT” - **Does It Matter - What I’m Transmitting?**
  - g. Units shall utilize the following terms to report the status of units:
    - i. Responding - Unit is enroute to an assigned call for service/incident.
    - ii. On-Scene - Unit has arrived on the scene of an assigned call for service/incident.
    - iii. In-Service - Unit that is available for other responses.
    - iv. Enroute to Hospital - Status of unit (ambulance) transporting a patient to hospital.
    - v. Off at Hospital - Status of unit (ambulance) completing transport to hospital.
  - h. Units shall refrain from reporting “on-the-road” unless they will be outside of their first response district. When leaving the first response district units shall announce their destination and purpose such as “Ladder 2 out of district for fuel”.
    - i. The I am Responding (IAR) software system is to be used to place apparatus “on-the-road”. This allows Dispatch and on-duty officers to monitor the movement of apparatus and adjust dispatch assignments accordingly.
  - i. Keep all transmissions brief and to the point.

- j. Speak up, speak distinctly and pronounce words carefully.
- k. Avoid transmitting with loud background noise such as next to building alarm devices or next to other radios creating feedback.
- l. Use official titles and authorized apparatus designations in all transmissions. Do not use nicknames or first names.
- m. During all radio operations, remain cordial and calm. Words or voice inflections which reflect an individual's irritation, disgust or sarcasm are inappropriate.

## **RESPONSIBILITIES**

All Scarborough Fire Department members and dispatchers shall adhere to this policy.

## **REFERENCES**

- A. U.S. Fire Administration (USFA), Voice Radio Communications Guide for the Fire Service, 2016
- B. Prince George's County Fire/EMS Department, General Order 03-13 Emergency Identifier Activation Procedure, 2011
- C. Rogers Fire Department Standard Operating Procedures, Radio Communications #402, 2016

## **ATTACHMENTS**

- A. Scarborough Fire Department Radio Fleet Map
- B. Town of Scarborough Communications Plan - ICS 205
- C. Scarborough Fire Department Acceptable Radio Terminology

Attachment A

<b>Scarborough Fire Department Radio Fleet Map</b>		
	(zones 2 and 3 swapped @ 1,3,5)	
<b>ZONE 1 - LOCAL</b>	<b>ZONE 2 - YORK M/A</b>	<b>ZONE 3 - METRO M/A</b>
1 FIRE PRIMARY	1 FIRE PRIMARY	1 FIRE PRIMARY
2 FIRE PRI T/A	2 FIRE PRI T/A	2 FIRE PRI T/A
3 STATE FIRE	3 STATE FIRE	3 STATE FIRE
4 CHIEF 280	4 CHIEF 280	4 CHIEF 280
5 CHIEF 265	5 OOB FIRE	5 WESTBROOK FD
6 EMS - 1	6 OOB FIRE TAC	6 WESTBRK FD VRS
7 EMS - 2	7 SACO/BIDD OPS	7 WESTBRK FD OPS
8	8 BIDDEFORD OPS	8 GORHAM FD
9	9 SACO OPS	9 GORHAM FD VRS
10	10 S/B OPS 3	10 CAPE FIRE
11 Station Specific Channels	11 S/B OPS 4	11 S.PORTLAND FD
12	12 BUXTON FIRE	12 PORTLAND FD
13	13 BUXTON VRS	13 WINDHAM FIRE
14	14 BUXTON T/A	14 STANDISH FIRE
15 FIRE TACTICAL	15 FIRE TACTICAL	15 FIRE TACTICAL
16 FIRE VRS	16 FIRE VRS	16 FIRE VRS
<b>ZONE 4 - EMA - 1</b>	<b>ZONE 5 - EMA - 2</b>	<b>ZONE 6 CTYW-BK-1</b>
1 FIRE PRIMARY	1 FIRE PRIMARY	1 FIRE PRIMARY
2 FIRE PRI T/A	2 FIRE PRI T/A	2 CC TAC 1
3 STATE FIRE	3 STATE FIRE	3 CC TAC 2
4 CHIEF 280	4 CHIEF 280	4 NWCC
5 CC EMA PRI	5 CHIEF 265	5 STATE FIRE
6 CC TAC 1	6 EMS - 1	6 CHIEF 280
7 CC TAC 2	7 EMS - 2	7 CHIEF 265
8 CC TAC 3	8 HOSPITAL	8 EMS - 1
9 CC TAC 4	9 VCALL 10	9 SWCC
10 CC TAC 5	10 VTAC 11	10 COUNTY FIRE
11 COUNTY FIRE	11 VTAC 12	11 COUNTY LAW
12 COUNTY LAW	12 VTAC 13	12 SP GRAY RCC
13 YORK CO EMA	13 VTAC 14	13 SP PLEASANT
14 WEATHER	14 YORK CO EMA	14 SP OSSIPEE
15 FIRE TACTICAL	15 FIRE TACTICAL	15 FIRE TACTICAL
16 FIRE VRS	16 FIRE VRS	16 FIRE VRS
<b>ZONE 7 CTYW-BK-2</b>	<b>ZONE 8 -MARINE</b>	<b>ZONE 9 - SCARBOROUGH</b>
1 FIRE PRIMARY	1 FIRE PRIMARY	1 FIRE PRIMARY
2 CONOPS 1 SWSP	2 FIRE PRI T/A	2 FIRE PRI T/A
3 CONOPS 2 NWCC	3 STATE FIRE	3 STATE FIRE
4 CONOPS 3 EMS-2	4 WEATHER	4 CHIEF 280
5 CONOPS 4 NWCC	5 MARINE 09	5 EMS - 1
6 CONOPS 5 ST FD	6 MARINE 12	6 HOSPITAL
7 CONOPS 6 SWCC	7 MARINE 16	7 POLICE PRIMARY
8 CONOPS 7 VCALL	8 MARINE 17	8 POLICE TAC
9 SP GRAY RCC	9 MARINE 22	9 PUB WORKS
10 SP PLEASANT	10 MARINE 23	10 COMM SERVICE
11 SP OSSIPEE	11 MARINE 68	11 SCHOOL BUS
12 SP SPRUCE	12 MARINE 78	12 SP OSSIPEE
13 EMS - 1	13 MARINE 81	13 SP SPRUCE
14 HOSPITAL	14 MARINE 83	14 T-PIKE MAINT.
15 FIRE TACTICAL	15 FIRE TACTICAL	15 FIRE TACTICAL
16 FIRE VRS	16 FIRE VRS	16 FIRE VRS



Attachment: B

Town of Scarborough ICS 205												
INCIDENT RADIO COMMUNICATIONS		Frequency Bank : Countywide Bank 1 (CTYW BK1)				Date/Time Approved 01-14-18		Operational Period/Date/Time As Needed				Page 1
Ch #	Function CC Bank 1	Channel Name	Assignment	RX Freq N	RX Tone/NAC	TX Freq N	TX Tone/NAC				Permission Required	
1	Local	FD Primary	FD Dispatch	154.130	192.8	153.905	114.8	No			No	
2	Local	FD TAC	Operations	155.775	155.775	156.7	156.7	No			Direct Non-repeated	
3		ME EMS 1	Medical	155.3850	CSQ	155.3850	CSQ	No			No	
4		SF 310	FD Staging	154.310	CSQ	154.310	CSQ	No			No	
5		CHF280	Water Supply	154.2800	CSQ	154.2800	CSQ	No			No	
6		CC FIRE	M/A FD Coms	155.6250	107.2	160.4550	107.2	No			Repeated Channel	
7		CHF265		154.265	CSQ	154.265	CSQ	No			No	
8		CC EMATAC1		155.1000	173.8	155.1000	173.8	No			No	
9		CC EMATAC2		155.6400	173.8	155.6400	173.8	No			No	
1	Local	PD Primary	PD Dispatch	160.125	192.8	155.415	192.8	No			No	
2	Local	PD TAC	Operations	155.520	192.8	155.520	192.8	No			Direct Non-repeated	
3		CC LAW	M/A PD Coms	154.8750	107.2	160.5450	107.2	No			Repeated Channel	
4		NWCC	Operations	155.4750	CSQ	155.475	192.8	No			No	
5		GRAY RN		151.1600	162.2	155.9700	162.2	Yes			Repeated Channel	
6		SWCC		154.6950	CSQ	154.6950	192.8	Yes			Yes	
7		PLEASANT RN (Bridgton)		169.6625	162.2	163.5750	162.2	Yes			Repeated Channel	
8		OSSIPEE RN		172.425	162.2	159.33	162.2	Yes			Repeated Channel	
9		SPRUCE RN		172.775	162.2	161.460	162.2	Yes			Repeated Channel	

Attachment: C

<b>Scarborough Fire Department Acceptable Radio Terminology</b>		
<b>Term or Phrase</b>	<b>Definition</b>	<b>Example</b>
Affirmative	Yes	"Engine three affirmative"
Copy/Copies	Used to acknowledge message received	"Engine two copies"
Emergency Traffic	Term used to “clear” the channel and alert the receiving unit (usually Command or Dispatch) that an incident has occurred requiring immediate action such as an injury to response personnel.	“Engine five EMERGENCY TRAFFIC”
Enroute to Hospital	Status of unit (ambulance) transporting a patient to hospital.	"Ambulance two enroute to Maine Med"
In Service	Status of a unit that is available for other responses.	"Engine four is in service"
Loss Stopped	Incident status or "benchmark" indicating that damage is no longer occurring.	"Command to four-oh loss stopped"
Mayday	Term indicating that a member or members are in a life threatening situation needing immediate assistance and unable to evacuate themselves.	"MAYDAY, MAYDAY, MAYDAY"
Negative	No	"Ladder one negative"
Off at Hospital	Status of unit (ambulance) completing transport to hospital.	Ambulance two off at Maine Med
On Scene	Status of a unit that has arrived on the scene of an assigned call for service/incident.	"Ladder two is on the scene"
Out-of-service	Status of a unit unable to respond due to a mechanical reason or committed to a training activity.	"Forestry four out of service mechanical"
Responding	Status of a unit that is enroute to an assigned call for service/incident	"Engine six is responding"
Under Control	Incident status or "benchmark" indicating that response objectives have been met and the need for additional resources is not expected.	"Command to four-oh under control"
Urgent	Term that shall be used to “clear” the channel and alert the receiving unit of information indicating a dangerous condition.	“Engine seven to Command URGENT”