SOG #
99-34A

Scope:
This standard establishes guidelines for the use of two-way radio communications equipment. It was promulgated to promote the most efficient and effective use of the radio communication system.

I. General

A. The department operates a very high frequency radio system. The system uses transmitters located at Topsfield Fire Headquarters and 210 Boston Street. This ensures a continuous, uninterrupted source of electrical power.

B. Most of the department's radios contain 99 channels or frequencies, which have been assigned as follows:

VHF Listings

l.	**Topsfield Fire**	**154.100**	**107.2**
2.	**Topsfield Fireground**	**151.460**	**107.2**
3.	**Beverly Control**	**154.070**	**131.8**
4.	**Boxford Fire**	**153.845**	**CSQ**
5.	**Ipswich Fire**	**159.397**	
6.	**Ham/Wen Fire**	**155.940**	**127.3**
7.	**Beverly Control FG**	**153.83**	
8.	**Topsfield Police ch2**	**154.710**	**107.2**
9.	**Boxford Police**	**154.800**	**123.0**
10.	**Lyons Ambulance**	**154.715**	**127.3**
11.	**North Each C-Med**	**154.340**	
12.	**Lawrence Fire**	**154.445**	**100.0**
13.	**Haverhill Fire**	**154.010**	**CSQ**
14.	**Lynn Fire**	**154.415**	**131.8**
15.	**Rowley Fire**	**154.295**	**94.8**
16.	**Amesbury Fire**	**158.955**	**203.5**

UHF Listings

1.	**Middleton FD**	**460.5750**	**131.8**
2.	**Danvers FD**	**483.3375**	**131.8**
3.	**Beverly FD**	**482.4375**	**131.8**
4.	**Peabody FD**	**484.6625**	**203.5**
5.	**Salem FD**	**483.4625**	**146.2**
6.	**Lynnfield FD**	**465.6125**	**131.87**
7.	**Andover FD**	**483.5875**	**146.2**
8.	**N. Reading FD**	**453.9500**	**136.5**
9.	**Stoneham FD**	**460.6250**	**131.8**
10.	**Wakefield FD**	**483.4370**	**146.2**
18.	**Med 1**	**463.000**	
19.	**Med 2**	**463.025**	
20.	**Med 3**	**463.050**	
21.	**Med 4**	**463.075**	
22.	**Med 5**	**463.100**	
23.	**Med 6**	**463.125**	

24. **25.** **26.** **27.**	**Med 7** **Med 8** **Med 9** **Med 10**	**463.125** **463.175** **462.950** **462.975R**	

C. It is the responsibility of all personnel to remain in radio contact with Fire Alarm while they are on duty. Therefore, they should notify Fire Alarm when they change location or status.

II. Restricted Activities

A. The radio system is designed for emergency communications and those activities that support the accomplishment of the department's mission. Therefore, a number of subjects are inappropriate when using the system. Common sense and good judgment should always be the user's guide when deciding the appropriateness of a message.

B. Personnel who use a two-way radio should realize that the radio does not afford the user the same level of privacy as when making a telephone call.

C. The following items are inappropriate and should never be broadcast over a two-way radio:

1. **Any term that would be offensive to someone of another race or gender.**
2. **Profanity.**
3. **Any discussion of an athletic event or political contest.**
4. **The name of a deceased firefighter before the proper notification of family members.**
5. **Business of a personal nature.**

III. Channel/Frequency Assignments

A. Frequency/channel 154.1mHz/channel #1 has been designated the department's primary channel. All incidents shall be dispatched on the primary channel and routine, non-emergency traffic will be conducted on this channel unless otherwise instructed by Fire Alarm. Therefore, all members should monitor this channel at all times.

B. Emergency operations may be conducted on a Fire Ground frequency 154.46mHz/channel #2 if necessary. The assignment will be made at the time of dispatch, and the responding units will be advised to move their traffic to the appropriate frequency/channel.

C. Frequency 154.34mHz/channel #11 has been designated as the medical control channel. Units shall use this channel to contact the hospital emergency room.

D. Frequency 154.07 mHz/channel #3 has been designated to serve as our county mutual aid radio network.

E. Frequency 154.38 mHz/channel #7 has been designated as the county mutual aid fireground radio network.

IV. Terminology

A. Use plain speech or clear text when transmitting over a two-way radio. The department does not use any system of 10 codes or CB lingo. Although the department does not use numerical codes, a distinctive vocabulary of words, phrases, and terms has been developed for use in radio conversations. These terms simplify and clarify radio conversation as well as contribute to brevity.

B. The department also uses the 24-hour clock rather than the traditional 12-hour clock. The 24-hour clock is often referred to as the military clock. All references to time used in two-way radio communications will be expressed in the 24-hour format. For example, 9:00 a.m. is expressed as 09:00 hrs (pronounced zero nine hundred hours). 9:00 p.m. is expressed as 21:00 hrs (twenty-one hundred hours).

C. Use the ICAO (International Civil Aviation Organization) phonetic alphabet to clearly identify each letter of the alphabet:

A – Alpha	**H – Hotel**	**O – Oscar**	**V – Victor**
B – Bravo	**I – India**	**P – Papa**	**W – Whiskey**
C – Charlie	**J – Juliet**	**Q – Quebec**	**X – X-ray**
D – Delta	**K – Kilo**	**R – Romeo**	**Y – Yankee**
E – Echo	**L – Lima**	**S – Sierra**	**Z - Zulu**
F – Foxtrot	**M – Mike**	**T – Tango**	
G - Golf	**N - November**	**U – Uniform**	

V. Sending and Receiving Messages

A. To ensure that a radio message will be clear and understandable, the user of a two-way radio should observe the following practices:

1. **Always speak in a conversational tone and at a moderate speed.**
2. **Speak directly into the microphone. While speaking, keep your lips within a half-inch of the microphone.**
3. **Remain calm. Always speak distinctly and clearly, pronouncing each word carefully.**
4. **Phrase your message naturally, not word for word. Avoid lengthy discussions, and be clear and to the point!**
5. **Use ordinary conversational strength. If surrounding noise interferes, speak louder, but do not shout.**
6. **Remember that a high-pitched voice transmits better than a low-pitched voice.**
7. **Figures, difficult words and important messages should be repeated by the speaker as necessary. The repeated portion should be preceded by the phrase *I repeat*.**

B. Message Format

1. **Identify the unit or function sending the message, as well as the unit or function to whom the message is being directed. Example: "Engine One to Command."**
2. **Wait for the unit being called to acknowledge, and then keep the message brief and to the point.**

   Example: "Engine One to Command."
   "Command to Engine One, go ahead."
   "Engine One to Command, the primary search is complete. We have an all clear."
3. **Use procedural words and phrases whenever possible.**
4. **Use phonetic spelling when using words or terms that might be difficult to understand or may be spelled in a variety of ways.**

C. Eliminating common errors

1. **The most common error committed by a user of a two-way radio is short keying. This is caused when a radio operator attempts to transmit a message before the repeater has time to engage. This practice chops off the first part of the message.**
2. **To correct the problem, the user should press the transmit button on the microphone and delay his message for three to five seconds. This delay allows the repeater time to engage. An experienced radio operator can actually hear the repeater engage. Once the repeater engages, the entire message can be successfully transmitted and received.**
3. **An error similar to short keying results when the radio operator fails to transmit the prefix of his assigned radio identifier when reporting en route or on location when responding to an assignment. The root cause of this problem is apathy or laziness on the part of the radio operator.**

VI. Clear text

Words and Phrases:	**Application:**
Affirmative	**-Yes.**
Call by phone	**-Self-explanatory.**
Clear	**-Understood.**
Clear of the scene	**-Assignment is completed, units returning to their stations, etc.**
Disregard	**-Cancel present assignment and return to service.**
Emergency	**-Term used to gain control of radio channel to report an emergency. All other radio users will refrain from using that channel until cleared by Fire Alarm.**
Emergency Traffic Only	**-Radio users will confine all radio**

	transmissions to an emergency in progress or a new incident. Radio traffic that includes status information (e.g., response, conditions, location, availability) will be authorized during this period.
En route	**-Responding to a destination.**
In quarters	**-Indicates a unit is in a station.**
In service	**-On the radio, available for a call.**
Loud and clear	**-Self-explanatory.**
Major accident	**-A motor vehicle accident with injuries.**
Minor accident	**-A motor vehicle accident without injuries.**
Negative	**-No.**
On location	**-Has arrived at the scene of an incident.**
Out of service	**-Indicates a unit is unavailable to respond to a call.**
Received	**-Understood.**
Repeat	**-Self-explanatory.**
Report	**-Provide a status update on the progress of an incident.**
Resume normal traffic	**-Radio channel is cleared for normal use.**
Return to	**-Self-explanatory.**
Respond, responding	**-Indicates a unit should proceed to/is proceeding to an incident.**
Stand by	**-Stop transmitting.**
Unreadable	**-Radio signal is unclear. In most cases, try to add the specific trouble. Example: "Unreadable, background noise."**
What is your location?	**-Self-explanatory.**