# UTILIZATION OF COMPANY HANDIE-TALKIE

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## ADDENDA

1. **Handie-Talkie Batteries – XTS 3500 R Radio**  
2. **Internal Radio Codes for Motorola XTS3500R Handie-Talkie**  
3. **Assignment of Spare Handie-Talkies**
1. INTRODUCTION

In order to meet the department's communications needs, a comprehensive communications system is being developed. The first phase includes new handie-talkie radios with enhanced features, vehicular cross band repeaters and 45-watt post radios. These three components will significantly improve communications in fire operations.

1.1 Handie-Talkies: (HT)

The Department has purchased 2 models of Motorola XTS3500R analog UHF HTs to replace current VHF Saber and MX330 HTs. They provide Interagency/Interoperability communications, as well as future Fire Dispatch communications.

1.2 Transition to UHF

Issuance of new UHF (XTS3500R) HTs requires the discontinuance and removal of all MX330 and most field VHF Saber HTs. 

Note: Citywide VHF HT will remain in service in Battalions and Divisions until Mobile frequencies are switched to UHF. Communication between existing FDNY VHF HTs and the new UHF (XTS3500R) HTs is not possible.

UHF mobile Cross-Band repeaters have been procured and installed and will replace existing VHF Mobile Cross-Band Repeaters in selected Battalion vehicles to provide continued communication in Hi-Rise locations.

Note: Currently some in-building repeaters are not compatible with UHF HTs.
11-2

5" Whip Antenna

Channel Frequency Indicator

16 Channel Frequency Selector Knob

Volume Control/ON-OFF Knob

LED Light

Concentric Switch (disabled)

3 Position Zone Selector (A-B-C)

Light Button (Purple)

Emergency Alert Button

"Squelch" Button (Gray)

Speaker

Disabled (Gray) For future use

Microphone

Push-To-Talk Button

Company ID#
5" Whip Antenna

16 Channel Frequency Selector Knob

LED Light

Remote Mic Connector

Concentric Switch (Disabled)

Emergency Alert Button

Lock Screw for Remote Mic

3 Position Zone Selector (A-B-C)

Volume Control/ON-OFF Knob

Light Button (Purple)

"Squelch" Button (Gray)

Disabled (Gray) For future use

Push-To-Talk

Company ID#

Microphone

Speaker

Multifunction LCD

Soft Keys

3X4 Alphanumeric Keypad

5" Whip Antenna

16 Channel Frequency Selector Knob

LED Light

Remote Mic Connector

Concentric Switch (Disabled)

Emergency Alert Button

Lock Screw for Remote Mic

3 Position Zone Selector (A-B-C)

Volume Control/ON-OFF Knob

Light Button (Purple)

"Squelch" Button (Gray)

Disabled (Gray) For future use

Push-To-Talk

Company ID#

Microphone

Speaker

Multifunction LCD

Soft Keys

3X4 Alphanumeric Keypad
REMOTE MICROPHONE

Emergency Alert Button

Push-to-talk Button

Microphone

Speaker
2. DESCRIPTION AND USE OF HT

2.1 Two XTS3500R HT models (Model I and Model III) come equipped with the following:

- 2 Watt to 5 Watt capability
- 5" whip antenna
- Nickel Cadmium rechargeable battery
- Carrying case with an adjustable shoulder strap

2.2 **LCD Display:** (Model III only)

The Liquid Crystal Display (LCD) provides visual information, including Zone Indication and Selected Channel. Every handie-talkie has an assigned 7-digit numeric Internal Identification Code. The code identifies the company and assigned riding position of the radio. This code will appear on the LCD screen of Model IIIIs for all transmissions. Activation of the Emergency Alert Button will cause the ID number to be preceded by the letters EM:

Model III radio is also capable of receiving a special 7-digit number specifically assigned to each radio, which will appear on its LCD screen for all transmissions.

**Note:** EM and the members ID code will appear again if the second "Emergency Alert Tone" is sent and/or each time the member depresses his/her push-to-talk button until member resets the Emergency Alert Button.

2.3 **ON-OFF/Volume Knob:**

**Radio ON:** Rotate knob clockwise until a click is heard or felt. The radio will go through a power-up self-test. The Model III display shows "Self Test". When the radio passes the self-test, it emits a short tone sound. If the radio fails the self-test, the radio emits a low-pitched tone sound. The Model III display shows "FAIL XX/YY", where XX/YY is an alphanumeric code. Turn the radio off, check the battery, and turn the radio back on. If the radio still does not pass its self-test, it is defective. The defect shall be noted on a repair tag and the HT sent for repair.

The HT must be turned ON prior to donning the bunker coat. Volume must be adjusted for effective communications. Operating at maximum volume increases feedback, which may interfere with communications. To reduce damage to the HT unit and to protect it from adverse weather conditions, the unit must be worn under the bunker coat.

2.4 **Push-To-Talk (PTT) Button:**

Puts Radio in the Transmit Mode – PTT function is also extended to the remote microphone. When the PTT button is depressed it transmits a pre-determined 7-digit number, specifically assigned to that radio. When the PTT switch is released at the end of a transmission, a tone will be heard through the microphone speaker. The tone level is proportional to the volume setting.
2.5 \textit{A/B/C Switch:}
(Model I and Model III): Selects any of 3 zones (Zone A, Zone B or Zone C)

2.6 \textit{Concentric Switch:} Disabled

2.7 \textit{Emergency Alert Button:}

2.7.1 The Emergency Alert Button (EAB) is found on the top of the HT Base and also on the top of the Remote Microphone.

2.7.2 Activation of either button will cause the following to occur:
- An "Emergency Alert Tone" is sounded on all HT’s within range (other than HT with EAB activation) on the same frequency.
- A "Beacon Tone" is sounded on the HT with EAB activation.
- Within range, the company, position, and name of the member who pressed the EAB immediately displays in the Electronic Fireground Accountability System (EFAS).
- HT transmission power on the tactical channel is increased from 2 watts to 5 watts, providing more power for the message to get through.
- The 7 digit Internal Radio Code, preceded by the letters “EM” is displayed on the LCD screen of the FAST Radio and Model III HTs. This enables identification of the unit and the assigned position of the member pressing the EAB.
- The MDTs of EFAS enabled units within range will automatically switch to EFAS mode and print a hard copy showing the company, position, and time when it receives an EAB activation.

2.8 \textit{Light Button:} (Purple)
Turns Channel Selector Knob and LCD (Model III) backlight ON for 5 seconds.

2.9 \textit{Squelch Button:} (Upper Gray)
Depressing the squelch button momentarily opens the internal squelch of the radio for the duration of button actuation.
Model III LCD Display shows the speaker symbol when squelch is in open mode.

2.10 \textit{Disabled Button:} (Lower Gray)

2.11 \textit{Multifunction LED:}
When the HT is turned ON, the LED temporarily illuminates Green and is followed by a short tone. This indicates that the HT is in proper working order.
### Steady Red

- Radio is transmitting

### Flashing Red (while transmitting)

- Low battery or when the radio voltage temporarily drops below the preset alert level

### Flashing Green (while transmitting)

- Battery too low to transmit but reception is possible

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#### 2.12 Soft Keys®/Home Key/Arrow Keys (Model III)
Disabled

#### 2.13 3 x 4 Alphanumeric Keypad: (Model III)
Disabled

#### 2.14 Zone Selection:
Each zone is a grouping of channels. The HT is provided with three distinct zones, Zones A, B and C. To select any of the three Zones, flip the A/B/C Switch to appropriate Zone.

#### 2.15 Channel Selection:
16 Position Select Knob
Rotate to select specific channel. The Model III LCD display shows the selected zone and channel. *When changing channels, you must ensure that the channel selector knob is on the intended channel. If the channel selector knob is inadvertently placed between channels, an incorrect channel may be activated. You must stop at a full click.*

#### 2.16 Remote Speaker/Microphone
Is provided with a hang up clip for attachment to the shoulder strap or a heavy spring loaded clip for attachment to the bunker coat.

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### 3. SPECIAL FEATURES

#### 3.1 Water Resistance
Radios and the remote speaker/microphones are designed to be water resistant to the effects of temporary submersion. Water resistance is highly dependent on proper use/connection and condition of the radio seal elements. Therefore, the radio should not be subject to unwarranted or casual submersion outside the function of firefighting.

#### 3.2 Audible Tone at End of Transmission (a.k.a. Key-up or Trailing Tone)
At end of each transmission, the radio emits an audible tone to 1) inform the operator of the volume setting, 2) indicate that the radio is functioning properly and 3) to signal the receivers' radio of the end of transmission.

#### 3.3 Audible Indication of Volume Setting
The radio operator may determine the volume setting in 3 ways: 1) level of audio during reception, 2) "squelch noise" when depressing upper gray button and 3) audible tone at end of each transmission.
3.4  30 Second Time-Out-Timer  
This feature cuts off the transmitter after 30 seconds of continuous transmission and is especially useful to correct the "stuck-button" problem. At the remote microphone speaker, the radio emits a short audible warning tone at approximately 26 seconds and a continuous tone at approximately 30 seconds. This indicates that the transmitter has been shut off. The operator can re-key the transmitter again if a longer transmission is required. This resets the Time-Out-Timer.

3.5  Intrinsically Safe and Non-Incendive  
The radio is approved to be Intrinsically Safe and Non-Incendive for several classified hazardous (flammable or explosive) environments when used with specific batteries. This means that the radio will not release sufficient electrical or thermal energy under normal or abnormal conditions to cause ignition of specific flammable vapors, liquid or gas, or combustible dusts or fibers in their most easily ignitable concentrations.

4.  EQUIPMENT DISTRIBUTION AND ASSIGNMENTS  
HT Equipment will be distributed as follows:

- 2 HT to each Division
- 3 HT to each Battalion
- 6 HT to each Ladder Company
- 6 HT to each Engine Company
- 6 HT to each Rescue Company
- 6 HT to each Squad Company
- 8 HT to Haz-Mat
- 6 HT to each Engine Company
- 4 HT to each Marine Company
- 6 HT to Decon Unit
- 2 HT to Special Operations Battalion
- 2 HT to Safety Operating Battalion
- 2 HT to Mask Service Unit
- 2 HT to each Haz-Tac Ambulance
- 2 HT to each Recuperation and Care Unit
- 2 HT to each Tactical Support Unit

4.1  All members of the following units shall be assigned a handie-talkie:
Engine, Ladder, Rescue, Haz-Mat and Squad Companies.

4.2  Radio depots are issued a full complement of HTs to outfit all units within their jurisdiction. Additionally, a 20% spare pool is issued over and above their regularly assigned sets.

4.3  Positional Radio Assignments
Engraved on the side of every unit's radio is the Company number and the assigned position of the radio. Examples:

- For Engine 79 Officer: FDNY E079-01
- For Ladder 81 Roof: FDNY L081-03
Companies shall adhere to the following positional radio assignments:

<table>
<thead>
<tr>
<th>4 FIREFIGHTER ENGINE COMPANY</th>
<th>5 FIREFIGHTER ENGINE COMPANY</th>
<th>LADDER COMPANY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Officer 01</td>
<td>Officer 01</td>
<td>Officer 01</td>
</tr>
<tr>
<td>ECC 02</td>
<td>ECC 02</td>
<td>LCC/QC 02</td>
</tr>
<tr>
<td>Nozzle 03</td>
<td>Nozzle 03</td>
<td>Roof 03</td>
</tr>
<tr>
<td>Back-up 04</td>
<td>Back-up 04</td>
<td>OV 04</td>
</tr>
<tr>
<td>Control 05</td>
<td>Control 05</td>
<td>Irons 05</td>
</tr>
<tr>
<td>Spare 06</td>
<td>Door 06</td>
<td>Can 06</td>
</tr>
</tbody>
</table>

Note: Any markings of the case MUST coincide with the assigned numerical position of the radio.

4.4 Internal ID Code
Every radio has an assigned 7-digit numeric internal identification code.
Examples:
For Engine 79 Officer: 5079001
For Ladder 81 Roof: 7081003

The internal code will appear on the LCD screen of Model IIIIs for all received messages.

5. UNIT INTRACOMMUNICATIONS

5.1 Members shall precede handie-talkie transmissions with their unit designation and assigned position.

Example
Company Officer: "Ladder 1 to Ladder 1 Roof. Have you opened the bulkhead yet? K"
Ladder 1 Roof: "Ladder 1 Roof to Ladder 1. Having difficulty with bulkhead door but skylight is off. K"
Officer: "Ladder 1, Ten-four."

5.2 When the Push-to-Talk button (PTT) on the handie-talkie is depressed, an electronic ID signal is transmitted. The processing time for the transmission of this electronic ID signal is approximately one quarter of a second. This is automatically done prior to the transmission of the audio signal from the handie-talkie.

Members shall follow these guidelines to assure clear and complete transmission of the HT audio signal:

- Depress the PTT button, taking a slight pause (1/4 second) to allow for the HT to transmit its electronic ID signal prior to speaking.
- Speak clearly and directly into the Remote Speaker Microphone (RSM). This will eliminate the need to repeat transmissions.
6. MAINTENANCE OF HT EQUIPMENT

6.1 If the HT becomes wet at an operation, or has been submerged in water, remove the battery, dry, and clean the HT and battery contacts before re-attaching battery to the HT.

6.2 If the remote microphone becomes wet, or submerged, water trapped inside the speaker grille and microphone can be removed by shaking the unit well.

6.3 External battery charging contacts may be cleaned with an eraser if a coating is observed on the contacts. Never use an abrasive.

6.4 The Field Communications Unit (FCU) shall carry, in addition to its normal complement, additional HTs with fully charged batteries. FCU shall keep, in addition to their normal complement, a supply of spare HTs for emergency use in the event a Division is depleted of HTs. Spare HTs for emergency use shall be returned to the FCU as soon as they are no longer required.

6.5 Members should not remove or replace any accessories associated with the radio, including antenna and remote microphone.

6.6 Member should not remove the radio housing. This will jeopardize the waterproof integrity of the radio.

6.7 When HTs are sent for repair, they should be sent complete (radio, antenna, battery, and external remote microphone) with defect and company number recorded on tag. Leather goods (cases and straps) should not be sent unless they need repair.

6.8 No items (keys, key fobs, etc.) shall be attached directly to the HT, case, antenna or remote mic as this may cause interference with radio transmissions. Items may be attached to the HT strap; however, they must be secured in a manner that does not allow movement or contact with the HT, case, antenna or remote mic.

7. FREQUENCY ALLOCATION AND USE

7.1 The following Frequency Assignment tables are included for both HT models. Channel Number is indicated on the 16 Position Select Knob at the top of both HT models.

NOTE:
♦ CHANNEL 16 (Emergency Channel) IS PROGRAMMED THE SAME ON ALL ZONES. Channel 16 is reserved for use at the discretion of the Incident Commander as an emergency channel.
# NEW YORK CITY FIRE DEPARTMENT

## MODEL I

### UHF PORTABLE RADIO CHANNEL LISTING

<table>
<thead>
<tr>
<th>ZONE A</th>
<th>WATTS</th>
<th>ZONE B</th>
<th>WATTS</th>
<th>ZONE C</th>
<th>WATTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH</td>
<td>NAME</td>
<td></td>
<td>NAME</td>
<td>WATTS</td>
<td>NAME</td>
</tr>
<tr>
<td>1</td>
<td>A: TACTICAL 1</td>
<td>2</td>
<td>B: TACTICAL 1</td>
<td>2</td>
<td>C: TACTICAL 1</td>
</tr>
<tr>
<td>2</td>
<td>A: COMMAND 1</td>
<td>5</td>
<td>B: COMMAND 1</td>
<td>5</td>
<td>C: COMMAND 1</td>
</tr>
<tr>
<td>3</td>
<td>A: TACTICAL 2</td>
<td>2</td>
<td>B: TACTICAL 2</td>
<td>2</td>
<td>C: TACTICAL 2</td>
</tr>
<tr>
<td>4</td>
<td>A: HT-4</td>
<td>5</td>
<td>B: HT-4</td>
<td>5</td>
<td>C: HT-4</td>
</tr>
<tr>
<td>5</td>
<td>A: HT-5</td>
<td>5</td>
<td>B: UCALL 40</td>
<td>5</td>
<td>C: HT-5</td>
</tr>
<tr>
<td>6</td>
<td>A: HT-6</td>
<td>5</td>
<td>B: UCALL 40D</td>
<td>5</td>
<td>C: HT-6</td>
</tr>
<tr>
<td>7</td>
<td>A: HT-7</td>
<td>5</td>
<td>B: UTAC 41</td>
<td>5</td>
<td>C: HT-7</td>
</tr>
<tr>
<td>8</td>
<td>A: HT-8</td>
<td>5</td>
<td>B: UTAC 41D</td>
<td>5</td>
<td>C: HT-8</td>
</tr>
<tr>
<td>9</td>
<td>A: HT-9 DIG†</td>
<td>5</td>
<td>B: UTAC 42</td>
<td>5</td>
<td>C: HT-9 DIG†</td>
</tr>
<tr>
<td>10</td>
<td>A: 10 EMSFIRE</td>
<td>5</td>
<td>B: UTAC 42D</td>
<td>5</td>
<td>C: 10 EMSFIRE</td>
</tr>
<tr>
<td>11</td>
<td>A: 11 BLDG RP</td>
<td>5</td>
<td>B: UTAC 43</td>
<td>5</td>
<td>C: 11 BLDG RP</td>
</tr>
<tr>
<td>12</td>
<td>A: 12 MOB RP</td>
<td>5</td>
<td>B: UTAC 43D</td>
<td>5</td>
<td>C: 12 MOB RP</td>
</tr>
<tr>
<td>13</td>
<td>A: 13 TAC “U”</td>
<td>5</td>
<td>B: Blank</td>
<td></td>
<td>C: 13 TAC “U”</td>
</tr>
<tr>
<td>14</td>
<td>A: 14 SUBW 1</td>
<td>5</td>
<td>B: Blank</td>
<td></td>
<td>C: 14 SUBW 1</td>
</tr>
<tr>
<td>15</td>
<td>A: 15 SUBW 2</td>
<td>5</td>
<td>B: Blank</td>
<td></td>
<td>C: 15 SUBW 2</td>
</tr>
<tr>
<td>16</td>
<td>A: 16 EMRG CH</td>
<td>5</td>
<td>B: 16 EMRG CH</td>
<td>5</td>
<td>C: 16 EMRG CH</td>
</tr>
</tbody>
</table>

†Digital channels do not support the emergency alert function.

**Note:** Transmission wattage decreases as the battery drains.
| ZONE A | | ZONE B | | ZONE C |
|---|---|---|---|---|---|---|---|---|---|
| CH | NAME | WATTS | NAME | WATTS | NAME | WATTS |
| 1 | A: TACTICAL 1 | 2 | B: TACTICAL 1 | 2 | C: TACTICAL 1 | 2 |
| 2 | A: COMMAND 1 | 5 | B: COMMAND 1 | 5 | C: COMMAND 1 | 5 |
| 3 | A: TACTICAL 2 | 2 | B: TACTICAL 2 | 2 | C: TACTICAL 2 | 2 |
| 4 | A: HT-4 | 5 | B: HT-4 | 5 | C: 4 HT-4 | 5 |
| 5 | A: HT-5 | 5 | B: UCALL 40 | 5 | C: NYMAC1 | 5 |
| 6 | A: HT-6 | 5 | B: UCALL 40D | 5 | C: NYMAC2 | 5 |
| 7 | A: HT-7 | 5 | B: UTAC 41 | 5 | C: NYMAC3 | 5 |
| 8 | A: HT-8 | 5 | B: UTAC 41D | 5 | C: NYMAC4 | 5 |
| 9 | A: HT-9 DIG† | 5 | B: UTAC 42 | 5 | C: NYMAC5 | 5 |
| 10 | A: 10 EMSFIRE | 5 | B: UTAC 42D | 5 | C: NYMAC6 | 5 |
| 11 | A: 11 BLDG RP | 5 | B: UTAC 43 | 5 | C: Blank | 5 |
| 12 | A: 12 MOB RP | 5 | B: UTAC 43D | 5 | C: Blank | 5 |
| 13 | A: 13 TAC “U” | 5 | B: 13 BLANK | | C: 13 BLANK | |
| 14 | A: 14 SUBW 1 | 5 | B: 14 BLANK | | C: 14 BLANK | |
| 15 | A: 15 SUBW 2 | 5 | B: 15 BLANK | | C: 15 BLANK | |
| 16 | A: 16 EMRG CH | 5 | B: 16 EMRG CH | 5 | C: 16 EMRG CH | 5 |

†Digital channels do not support the emergency alert function.

Note: Transmission wattage decreases as the battery drains.
7.2 Method of Usage:

7.2.1 Primary Tactical (Model I & III – Zone A, Channel 1).
All units in all Boroughs shall operate on this channel until ordered to do otherwise by the Chief-in-Command of an operation.

7.2.2 Secondary Tactical (Model I & III – Zone A, Channel 3).
This channel can be used by units when Primary Tactical Channel (Channel 1) is heavily used at a nearby incident or at the discretion of the Chief-in-Command. The following guidelines will govern its use:

A. The first incident in a borough that escalates to 7-5 status will have priority use of Channel 1 (Primary Tactical)

B. The Incident Commander of any ensuing incidents in the same area will determine if and when the Secondary Tactical Channel (Channel 3) must be used.

C. When the Incident Commander arrives at an incident and decides to use the Secondary Tactical channel, all units must be informed. The Incident Commander will notify the dispatcher via Department radio that the Secondary Tactical channel will be placed in use. The dispatcher will then broadcast this information to responding units and again to any units responding on additional alarms.

The firefighter assigned to the Incident Commander shall contact each unit that arrived prior to the Chief and inform them of the necessary channel change. This may be accomplished by brief messages using Channel 1 or by personal contact.

The secondary tactical channel can also be implemented by the IC for; extensive floor searches, Haz-Mat/Decon Operations, 10-66 signal where search/rescue groups are operating, or any large operation deemed useful by the Incident Commander.

7.3 Primary Command Channel Operations

7.3.1 The Command Channel can only be implemented by the Incident Commander. As an operation progresses and sectors/groups and/or branches have been assigned, it is incumbent upon the IC to establish a Command Channel. This will allow the IC to effectively implement strategy, coordinate the supervision of the tactical operation and to allow better control of the overall operation.

7.3.2 A Command Channel shall be established:
A. 2nd alarm or greater.
B. Signals 10-60, 10-66, and 10-76.
C. When signal 10-77 is transmitted and more than one sector is established.
D. When needed during complex operations as determined by the IC to assure a manageable span of control.
The Bureau of Operations mandates Command Channel training drills to be conducted semi-annually (May/November). The Command Channel shall also be used at all large scale drills and discussed at Division conferences.

**Guidelines for establishing a Command Channel:**

A. The IC shall notify the dispatcher when a Command Channel has been established. If notification of a Command Channel activation is not received by the Borough Dispatcher on the transmission of a 2nd alarm, 10-60, 10-66, and 10-76, the dispatcher shall ascertain from the IC during the next progress report if a Command Channel will be established.

B. The dispatcher shall announce to all responding units that a Command Channel has been established. This announcement shall be followed by a notification to each Chief Officer responding on the 2nd or greater alarm, 10-60, 10-66, or 10-76. Chief Officers will acknowledge the receipt of this notification.

C. The IC shall announce to all on-scene units on HT Channel 1 that a Command Channel has been established.

   Ex. “Command to all units, a Command Channel has been established on HT Channel 2”

   Note: If time and radio traffic permits, this message shall be broadcast twice.

D. While enroute to the incident, the Resources Unit Leader (RESL) will ascertain from the MDT or dispatcher the identity of the units assigned to the incident. Upon arrival, the RESL shall report to the IC at the ICP.

E. The IC shall have the RESL conduct a roll call on HT Channel 2 to ensure compliance. If the RESL has not yet arrived, the IC may conduct the roll call, or delegate it to another member (i.e. Division or Battalion Firefighter).

   Ex. “Resources Unit Leader to all Sectors/Groups, a Command Channel has been established. All Battalion firefighters switch to HT Channel 2. A Command Channel roll call is being conducted, acknowledge when called.”

F. The Command Channel (primary) is designated as HT Channel 2. If the complexity of the incident warrants, the IC may establish a Secondary Command Channel as per section 7.4, and determine who shall operate on such.
7.3.5 Guidelines for using a Command Channel:

A. In order for a communications plan utilizing a Command Channel to operate effectively, all Battalion Chiefs assigned as Sector/Group Supervisors must ensure their assigned Battalion firefighters accompany them to their designated sector or operating location. These members shall be equipped with proper PPE.

B. Battalion Chiefs assigned as Sector/Group Supervisors operating in tactical positions shall continue to operate on the designated HT Channel 1 (tactical) in order to maintain control of ongoing operations under their supervision. Battalion firefighters operating in these sectors/groups shall monitor and maintain communications on HT Channel 2 (command).

C. Sector/Groups Supervisors shall provide progress reports to Command via the Battalion firefighter on HT Channel 2. In emergency situations, Sector/Group Supervisors may provide critical information directly to Command (or Operations if staffed) on HT Channel 1.

D. The Deputy IC or OSC (1st BC) shall monitor communications on HT Channel 1 (tactical). His/her Battalion firefighter shall monitor communications on HT Channel 2 (command).

E. The Deputy Chief (IC) shall operate on HT Channel 2 (command). His/her Division firefighter shall monitor communications on HT Channel 1 (tactical).

F. The Post Radio (45W) shall be pre-set to Channel 2 (command), and can be used by the Deputy Chief (IC) as needed to communicate with Sector/Group Supervisors if HT Channel 2 (5W) is ineffective.

G. The RESL shall remain at the ICP at the location of the Portable Command Post (PCP). He/she shall monitor all communications on HT Channel 1. His/her Battalion firefighter shall monitor communications on HT Channel 2.

H. When sectors/groups have been established, Sector/Group Supervisors must ensure that non-urgent transmissions do not bypass the Sector/Group Supervisor. If a non-urgent message is transmitted to “Command” or “Operations,” the Sector/Group Supervisor, or the RESL, must acknowledge the message and inform the member that a sector/group has been established. He/she must then inform the member that all future non-urgent transmissions are to go through their assigned sector/group. Organized communications is the key to effective command and control; therefore it is incumbent upon all Chief Officers to enforce this HT discipline.
I. When transition to the Command Channel is complete, each Sector/Group Supervisor will provide for command and control of that particular segment of the incident. He/she shall maintain communications with units in that sector/group.

J. The IC (Deputy Chief) will now have successfully decentralized command; and will be better able to manage the entire incident. He/she shall then ensure that all HT channels in use are actively and continuously monitored at the ICP for the duration of the incident.

K. At Large Scale operations, the IC shall consider having Chief Officers utilize their assigned Post Radio to improve communications.

Examples of a large-scale event are:

- Large Malls
- Airport Terminals
- Large Area Brush
- Venues such as Madison Square Garden and Stadiums
- Subway operations
- Major Transportation Hubs (Grand Central Terminal, Penn Station, etc.)

Note: Even if these locations are equipped with their own repeater system, Incident Commanders shall make use of the Post Radios as a redundancy in case of failure of the repeater system.

7.4 Channels 4-8 are for Secondary Command and for Tertiary Tactical use, implemented at the discretion of the Incident Commander. Channels HT-4 thru HT-8 are not named to allow for a more flexible assignment. Based on testing, recommendations are that Channels 4 thru 8 be used in designated boroughs as shown in the chart below. A copy of this chart shall be maintained in all Division and Battalion vehicles for use by responding Chief Officers. All Chief Officers must be familiar with the designated Tactical and Command Channels for their response areas.

<table>
<thead>
<tr>
<th>Borough</th>
<th>Recommended Secondary Command Channel</th>
<th>Recommended Tertiary Tactical Channel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Queens</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Brooklyn</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Manhattan</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Bronx</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Staten Island</td>
<td>8</td>
<td>4</td>
</tr>
</tbody>
</table>
NOTES: RADIO FREQUENCY (RF) INTERFERENCE AND DEADSPOTS

1. There are known and unknown locations where handie-talkie operations are hampered e.g., hospitals and dense buildings. Buildings with communications difficulties should be included in the CIDS program.

2. Communication transmissions and reception can sometimes be improved by moving a few feet or turning one’s body.

3. Repeaters not included in our infrastructure could hamper FDNY communications.