AIR RESCUE PLAN - HIGH RISE STRUCTURES

1. INTRODUCTION

1.1 Fires and emergencies in high-rise buildings present unique challenges to the Fire Department of the City of New York. Operations usually require a large commitment of resources. Some of the factors complicating operations are: wind, large fire areas, numerous occupants, and water supply issues. Another problem at high-rise fires is the tendency of occupants to seek refuge on the roof. These occupants cannot be ignored and the possibility exists that a helicopter operation may be required.

The decision to place FDNY personnel on the roof does not always commit the IC to a helicopter evacuation. Many fatalities at high-rise fires were caused by people attempting to reach the roof via smoke filled halls and stairwells. A plan to provide helicopter capabilities at high-rise fires has been developed in conjunction with the New York City Police Department.

Roof evacuation by helicopter is both hazardous and time consuming, and should only be attempted as a last resort upon direct orders from the Incident Commander (IC).

2. DESCRIPTION OF THE AIR RESCUE PLAN-HIGH RISE STRUCTURES

2.1 Objectives:

2.1.1 Provide FDNY with the capability to place fire personnel on the roof of high-rise buildings, otherwise inaccessible due to fire conditions for the purpose of ventilation and search. A High Rise Roof Chief (HRRC) and designated High Rise Roof Teams (HRRTs) will be used to staff these positions.

2.1.2 Control, comfort and direct people who view themselves as trapped and remote from help.

2.1.3 Provide the incident command post with intelligence on roof conditions.

2.1.4 Evacuate persons in need of immediate medical attention.

2.1.5 Provide the capability to evacuate the roof as a last resort.

2.2 The plan is divided into three phases:

**ALERT:** Notification is made by the Incident Borough Fire Dispatcher direct to the NYPD Operations Unit upon the transmission of a doubtful third alarm for a fire associated with a 10-76 or 10-77 involving a high-rise building.

**ASSEMBLE:** Fire Department units, Police Helicopters and NYPD Emergency Service Unit (ESU) personnel are assembled at a selected mobilization point.

**AIRLIFT:** Air Rescue Teams are airlifted to the vicinity of the roof of the fire building, pending the decision of the IC to actually land members on the roof.
2.3 Criteria for Use:

2.3.1 The decision to "Assemble" rests with the IC at the fire. The conditions under which Assembly may be ordered are generally, but not limited to:

A. Fire located above 10th floor in a high-rise building.
B. Fire has possession of two or more floors.
C. Interior access routes above fire blocked.
D. Access to the roof limited to exterior of building, via helicopter.

2.3.2 The decision to "Airlift" may be made only by an IC who is a staff chief.

2.3.3 If the decision is made by the Fire Department IC to utilize the Air Rescue Plan for High Rise Structures, the operation shall be in conformity with guidelines contained in this document. This decision rests with the Fire Department IC until fire operations are completed.

2.4 Mobilization Points:
In the event of a major high-rise fire in the midtown area, most 3rd Division units will be engaged and streets in the midtown area are likely to be clogged with traffic. Similarly a high-rise fire in lower Manhattan will involve most 1st Division units. For this reason two high-rise helicopter mobilization points have been selected. Each location has a different High-Rise Roof Chief (HRRC) and different High-Rise Roof Teams (HRRT).

2.4.1 High-Rise Fire South of 23rd Street:
Mobilization Point E. 34 St. Heliport.
HRRCs Battalion 8, 9
HRRTs Ladder Co. 2, 7, 21

2.4.2 High-Rise Fire North of 23rd Street:
Mobilization Point Wall St. Heliport
HRRCs Battalion 1, 4
HRRTs Ladder Co. 6, 10, 15

2.4.3 In unforeseen events or for fires in high-rise buildings in other parts of the City, the selection of alternate mobilization points will be determined by the Incident Borough Tour Supervisor (Dispatcher), in consultation with the NYPD Aviation Unit.
3. PERSONNEL AND EQUIPMENT INVOLVED

3.1 High-Rise Roof Chief (HRRC) Duties

3.1.1 On the order to "Assemble," the Manhattan Dispatcher will notify the nearest and available HRRC to respond to the designated FDNY/NYPD mobilization point and rendezvous with the HRRTs, NYPD Aviation and ESU Units.

3.1.2 Obtain the following information from the Incident Commander through the Dispatcher while responding to the mobilization point.
   A. Progress Report
   B. Identification of Attack and Evacuation Stairs
   C. Identification of the stairs that lead to roof

3.1.3 Notify the IC of the fire through the Manhattan Radio Dispatcher (or the Borough Radio Dispatcher wherein the mobilization point is located) when the High Rise Roof Teams, NYPD Aviation and ESU are assembled.

3.1.4 Be equipped with SCBA (Self-Contained Breathing Apparatus) clipboard and a personal harness for attachment to safety hook inside the helicopter.

3.1.5 Communications:
   A. Ensure that the HRRC, HRRTs and PD ESU are on the proper handie-talkie channel prior to lift off. The TAC U Channel 13 would be a suitable choice during air operations and necessary for coordination and communication between FDNY/NYPD personnel.
   B. On receiving the order to "Airlift" from the FDIC via the Fire Dispatcher, inform NYPD Aviation and ESU to commence "Airlift Operations."
   C. Take the Post Radio for use on/within structure. If a Post Radio is not available, take the Battalion FF’s handie-talkie. The Post Radio cannot be used in the helicopter.
   D. On the building, use the Primary Command channel for contacting the Incident Command Post and the Tactical U Channel for interoperable communications with the HRRT's and NYPD ESU.
   E. If hardwired communication is established with the ICP (warden phone, standpipe phone, telephone) use a HRRT member to assist with communications.

3.1.6 Due to the unpredictable effects of ventilation in high-rise buildings, interior stairs or shafts must not be vented unless ordered by the Incident Commander of the fire.
3.1.7 If required, the HRRC in consultation with the Incident Commander will order an evacuation and airlift of all civilian and uniform personnel from the roof. The HRRC will notify the Incident Commander when all civilians and uniformed personnel have been airlifted to safety.

3.1.8 The HRRC's Battalion firefighter will remain at the mobilization point to provide security for the Battalion vehicle and HRRT apparatus.

3.1.9 The HRRC's Battalion firefighter must obtain keys to both HRRT apparatus. If additional equipment is needed, a helicopter will return to the mobilization point to transport it. The Battalion firefighter will monitor the department radio for instructions.

3.1.10 Battalions 1, 4, 8 and 9 have been trained as HRRCs. If they are unavailable, any battalion may be selected.

3.2 High-Rise Roof Team (HRRT)

3.2.1 A HRRT consists of a trained and properly equipped ladder company staffed with an officer and five firefighters. Upon the order to "Assemble," the Manhattan Dispatcher will notify the two nearest available trained HRRTs to respond to the designated mobilization point. The HRRC will designate units as primary and secondary HRRTs.

3.2.2 Upon landing, members will operate under the direction of the HRRC. The secondary HRRT will remain at the mobilization point and await orders.

3.3 High-Rise Roof Kit (HRRK) See Figure 1

3.3.1 Due to space and weight considerations aboard the helicopter, the only tools and equipment included in the High-Rise Roof Kit are:

A. 6 SCBA with 1-hour cylinder
B. 1 Bolt Cutter
C. 2 Halligan Tools
D. 2 Axes
E. 2 Search Ropes
F. 1 Rabbit Tool
G. Bags for Tools (to prevent damage to the aircraft)

3.3.2 These bagged tools shall be the only tools brought into the helicopter.

3.3.3 Tools shall be stowed in the helicopter as directed by the NYPD Helicopter Crew Chief.
3.4  NYPD Aviation Bureau & NYPD ESU

3.4.1 Under normal conditions, it can be anticipated that a time span of approximately 30 minutes can be expected between the orders to "Assemble" and "Airlift." In developing a strategy, the FDNY IC should give consideration to this time lag and also communications with the Air Recon Chief, who will already have been mobilized and on scene in the air in an NYPD Helicopter.

3.4.2 If two helicopters are available, the first will carry the NYPD ESU who will secure the landing zone as ordered by the Fire Department Incident Commander. The second helicopter will begin the airlift of FD personnel. If only one helicopter is available, it will return to the Mobilization Point to begin the airlift of FD personnel.

3.4.3 The Helicopter Pilot, Crew Chief or ESU Personnel will direct members on and off the aircraft.

3.4.5 ESU will remain with the HRRC on the roof to secure the landing zone.

3.4.6 ESU members operating on the roof of the fire building will communicate with FDNY personnel on the TAC U channel.

Figure 1
HIGH-RISE ROOF KIT

? 6 SCBA (1 HR. CYL.)
? 2 AXES
? 2 HALLIGAN TOOLS
? 2 SEARCH ROPES
? 1 RABBIT TOOL
? 1 BOLT CUTTER
? REQUIRED TOOL BAGS FOR EQUIPMENT
4. **AIR RESCUE PLAN FOR HIGH RISE STRUCTURES - OPERATIONS**

4.1 **Alert Phase**

Upon receipt of a doubtful third alarm for a fire associated with a 10-76 or 10-77, the Incident Borough Fire Dispatcher will contact the NYPD Operations Unit.

**Note:** The purpose of the "Alert" phase is to allow the NYPD Operations Unit time to prepare and make required notifications to NYPD Aviation Unit and NYPD ESU for joint Air Rescue Operations.

The Incident Borough Fire Dispatcher (if necessary) will notify the Manhattan C.O. that the "Alert" phase of AUC 269 has been implemented.

There will be no movement of the HRRC or HRRTs in this alert phase.

4.2 **Assemble Phase**

The IC at a high-rise fire will give the order to "Assemble" via the Incident Borough Dispatcher.

4.2.1 The Incident Borough Communications Office shall:

A. Notify the NYPD Operations Unit by phone of the FDNY IC orders and to "Assemble" the Air Rescue Teams, at the agreed upon mobilization point. The primary mobilization points, Wall St. and 34th St. Heliports, will be used if possible.

B. Notify the Manhattan C.O. (if operations are located in a different Borough) to dispatch the HRRC and HRRTs to the designated mobilization heliport or helispot.

C. Obtain information required in Section 3.1.2 and relay to the HRRC.

D. Notify the Incident Command Post when the HRRC, HRRTs and NYPD are assembled at the mobilization point.

4.2.2 The NYPD Operations Unit shall:

A. Notify the Aviation Unit and the Emergency Service Unit to respond to the mobilization point for rendezvous with the FDNY HRRC and HRRTs.

B. Notify NYPD to dispatch the nearest available radio car to the fire building. This officer will report to the IC and be a Command Post Liaison for the interagency Air Branch operations.
4.3 Airlift Phase

The IC (Staff Chief) at a High Rise fire will give the order to "Airlift" via the Incident Borough Dispatcher.

4.3.1 The Incident Commander shall:
   A. Have the TAC U interoperable channel and the primary command channel monitored at the incident command post.
   B. Notify the Air Recon Chief that an Airlift has been ordered and to switch to the TAC U channel. If available, the Battalion firefighter will monitor the primary command channel via FDNY handie-talkie and headset.

4.3.2 The Incident Borough Communications Office shall:
   A. Notify the HRRC at the mobilization point (or the Manhattan Dispatcher if appropriate for relay to the HRRC) that an "Airlift" has been ordered and to commence with airlift operations. Follow-up notification will be made to the NYPD Operations Unit by phone.

4.3.3 The High Rise Roof Chief shall:
   A. Switch to the TAC U interoperable channel. Order the HRRTs to switch to the TAC U Channel.
   B. Notify NYPD ESU to switch to the TAC U channel.
   C. Inform NYPD Aviation and ESU to commence with airlift operations.

4.3.4 NYPD Aviation shall:
   A. Fly the NYPD ESU to the roof of the fire building. The aviation pilot in consultation with ESU personnel will advise the FDNY Air Recon Chief (ARC) and IC as to the feasibility of landing the aircraft on the roof.
   B. Communications between ESU personnel and the ARC will be on the interoperable TAC U Channel 13 handie-talkie frequency. The Air Recon Chief will relay information received to the IC using the helicopter 25-watt radio on the TAC U channel. If the IC orders a roof landing, NYPD ESU will secure the landing zone.
   C. This aircraft will return to the FDNY/NYPD mobilization point to pick up the HRRC and the HRRT. Due to weight limitations, two airlifts will be necessary. The first airlift will include the HRRC, the officer and forcible entry team. The second lift will include the Chauffeur, OVM and Roof firefighters. In the event NYPD has an additional Bell 412 air rescue helicopter, it will be dispatched to assist.
4.3.5 The HRRT Officer shall:
A. Insure all members have their personal harness, the firefighting equipment is properly bagged and members are on the handie-talkie TAC U channel. (Obtain an extra personal harness from the HRRC or use a Life Saving Belt)
B. Approach the helicopter after receiving the signal from the pilot, co-pilot or crew chief.
C. Supervise loading and unloading in view of pilot as directed by the crew chief.
D. Monitor the handie-talkie TAC U channel during flight.
E. Operate under the direction of the High Rise Roof Chief.
F. After the helicopter has landed on the roof, select an assembly point near a bulkhead or other roof projection away from the helispot and have members proceed to it.

4.3.6 After FDNY personnel have successfully disembarked on the roof and the air rescue phase of operations has concluded, the ARC and HRRC may resume communications with the ICP on the primary command channel as ordered by the Incident Commander.

5. SAFETY

5.1 All Department personnel must observe the following safety rules:
♦ All members must wear a personal safety harness or Life Saving Belt during flight operations in the NYPD helicopter as a HRRC or member of a HRRT. This is necessary to secure the member to a substantial object.
♦ The HRRC and HRRTs shall approach and board the air-rescue Bell 412 helicopter only when directed by the pilot, co-pilot or crew chief. Leave the helicopter only when directed by the pilot, co-pilot or crew chief.
♦ Air rescue teams shall board and depart the Bell 412 air rescue ship from the front within the field of vision of the pilot (See Figure 2).

NOTE: The safety zone on this Bell 412 air-rescue helicopter is different than the safety zone of the Augusta A119 helicopter (see AUC 269 Figure 1) that flies the Air Recon Chief.
♦ Do not approach the tail section under any circumstances.
♦ Approach and leave the aircraft in a semi-crouched position in single file. Do not run.
♦ Raise nothing above the head in the vicinity of the helicopter. All items must be secured when boarding and unloading. Helmets must be secured with the chinstrap.
♦ Each member will carry his/her mask. Firefighters will carry their assigned tools in appropriate carry bags to the helicopter. This will protect the aircraft from damage and prevent movement of the stored tools. There must be no unnecessary movement in the area of the helicopter.
♦ When loading HRRK, one member will enter the cabin and stow the equipment as directed by the helicopter crew chief.
The crew chief or pilot will designate riding positions on the helicopter. 
Be alert for other helicopter landings and takeoffs.

6. PROGRAM MAINTENANCE

6.1 The Manhattan Borough Commander is the PROGRAM OFFICER and is responsible for all support, training and maintenance of the FDNY Air Rescue Plan-High Rise Structures.
- Liaison with the N.Y.P.D.
- Training and the condition of all equipment required for the program.
- Notifying the Bureau of Operations when major drills are planned.
- Forwarding of required reports to the Chief Of Operations.

NYPD Air-Rescue Helicopter
(Bell 412 Aircraft)

Figure 2