

FDNY Fire Operations response on September 11

This section of our report describes the major aspects of the response of FDNY Fire Operations to the World Trade Center attack. It has four parts. The first describes how FDNY commanders exercised overall command and control of fire operations at the scene. The second deals more specifically with how those commanders deployed and managed personnel and resources. The third describes how the Fire Department handled planning of its resource requirements on September 11 and afterwards, and how the Fire Department managed logistics (i.e., deployment of supplies and equipment). The fourth discusses the challenges faced by the Department as it sought to support and counsel its members and their families in the aftermath of September 11.

COMMAND, CONTROL AND COMMUNICATIONS

The FDNY's response to the attacks of September 11 began at 8:46 a.m., the moment that American Airlines Flight 11 crashed into Tower 1 of the World Trade Center (WTC 1).

Command is established

The Battalion Chief assigned to Battalion 1 (B1)¹⁰ witnessed the impact of the plane from the corner of Church and Lispenard Streets. He immediately signaled a second alarm¹¹ and proceeded to the World Trade Center. En route, B1 requested additional resources by transmitting a third alarm at 8:48 a.m.

B1 informed the FDNY Communications Office (Dispatch) that the corner of West and Vesey Streets, one block north of WTC 1, would be the designated staging area for third alarm units.¹² B1 arrived at WTC 1 at approximately 8:50 a.m. As the first responding chief, he established the Incident Command Post

¹⁰ A battalion is a collection of FDNY resources or "units" (e.g., engine and ladder companies) responsible for a geographical area of the city. Four to five firefighters and one officer generally comprise a unit. Five to eight units comprise a battalion. Four to seven battalions comprise a division. The World Trade Center was located in Battalion 1's response area within Division 1. "B1" and similar codes used in this document are radio designations.

¹¹ Alarms correspond to the number and type of units deployed to an incident. A second alarm in a high-rise building typically deploys 19 pieces of apparatus and 11 chiefs. Third, fourth and fifth alarms deploy additional resources.

¹² A staging area is a resource management area in close proximity to an incident. It is standard FDNY procedure to stage units assigned to third alarms and above. Units that are directed to stage are expected to respond to the staging area and await further deployment instructions.

(ICP) in the lobby, per FDNY's high-rise firefighting procedures.¹³ In approximately 10 minutes, from 8:50 a.m. to about 9:00 a.m., Incident Command was established and passed (according to protocol) from B1 to the First Division Chief (D1) to the Citywide Tour Commander 4D (CWTC-4D)¹⁴ and finally to the Chief of Department (COD) (see Exhibit 2 for a command and control timeline).

At approximately 9:00 a.m., the Incident Commander moved the Incident Command Post from the lobby of WTC 1 to the far side of West Street (an eight-lane highway) opposite WTC 1, because of the increasing risk from falling debris within and around the lobby and other safety concerns. Chief officers considered a limited, localized collapse of the towers possible, but did not think that they would collapse entirely. The command post in the lobby of WTC 1 became the Operations Post¹⁵ (OP-1) for WTC 1, reporting to the ICP. This Operations Post was managed by senior chiefs and was responsible for all operations in WTC 1, including the assignment of units to search and rescue operations in that building. It was necessary for the chiefs to remain in the lobby so they would have direct access to important building systems, such as controls for alarms, elevators, and communications systems.

The Field Communications Unit (Field Com) set up operations at the West Street ICP at approximately 9:15 a.m., in accordance with protocols. This unit was responsible for tracking the location and job assignment of all resources at the incident (e.g., which units responded to which alarms and which units were assigned to each tower). Field Com was also responsible for coordinating the assignment of additional units to the incident with Dispatch, upon request by the Incident Commander.

Our interviews with the chief officers in charge of the Operations Post in WTC 1 indicated that, early in the response, they decided that operations in WTC 1 should focus on search and rescue of injured and trapped civilians. The chiefs dispatched units from the lobby of WTC 1 to higher floors in two situations:

- ¶ In response to specific distress calls (e.g., people stranded in elevators, trapped in rooms, or hurt who would either call 911 or contact OP-1 directly through WTC 1's internal telephone system).
- ¶ To ensure that floors below the fire had been totally evacuated.

¹³ An Incident Command Post is the location from which all aspects of an incident, including operations, logistics, and planning are managed.

¹⁴ The Citywide Tour Commander is a staff chief responsible for FDNY operations throughout the city. One citywide tour commander is on duty at all times. On September 11, seven citywide tour commanders were designated CWTC-4A through H, except for the designation CWTC-4F, which was unused.

¹⁵ An Operations Post is where operations are led for one component of the incident.

Units arriving at the lobby of WTC 1 checked in with the chief officers at the Operations Post for their assignments. Chief officers sent these units up into the building in a controlled, orderly way.

Before 9:00 a.m., D1 and B1 directed Port Authority personnel to evacuate surrounding buildings as a precautionary measure.

Plane hits WTC 2

At 9:03 a.m., United Airlines Flight 175 hit World Trade Center Tower 2 (WTC 2). Resources were immediately deployed to WTC 2 from the West and Vesey staging area and WTC 1. CWTC-4B, in coordination with the Incident Commander and chiefs in command of OP-1, established an additional Operations Post in the lobby of WTC 2 (OP-2), reporting to the Incident Commander. As at WTC 1, we believe that chiefs sent units arriving at WTC 2 up into the building in a controlled, orderly way.

Chiefs designate staging areas

As the mobilization escalated, senior chiefs established staging areas near the World Trade Center. However, as units approached, many failed to report to these areas and instead proceeded directly to the tower lobbies or to other parts of the incident area (see Exhibit 3 for a staging timeline).

For instance, early in the response B1 designated the corner of West and Vesey Streets as the staging area for third alarm units. Starting at 8:53 a.m., Dispatch sent radio instructions to these units to stage at West and Vesey. At 8:57 a.m., the Chief of Department, while still en route to the incident, requested the assignment of a staging chief to coordinate activities at West and Vesey. He then issued a fifth alarm for WTC 1 and responding units were instructed to report to this staging area.

At 9:12 a.m., the Chief of Department issued a fifth alarm for WTC 2 and at approximately 9:16 a.m., the corner of West and Albany Streets (two blocks south of the World Trade Center) was designated as the staging area for WTC 2. All units responding to that fifth alarm were directed by Dispatch to stage there. Citywide Tour Commander CWTC 4E assumed command of that area as the staging chief.

However, it is unclear whether all units received Dispatch's radio transmissions instructing them to stage because the units were not explicitly asked to confirm receipt of the transmission and they did not acknowledge the messages. Some

units responding to WTC 2 from Brooklyn may have been in the Brooklyn-Battery Tunnel, out of the reach of the Dispatch's radio communication and Mobile Data Terminal¹⁶ (MDT) systems, when the staging directions were transmitted.

As units converged on the scene and civilians were evacuated, there was traffic congestion and gridlock in the area. Several units traveling from the north had difficulty getting to their staging area south of the towers. Our interviews and reviews of dispatch tapes suggest that several responding units were unable to reach their staging areas with their apparatus and therefore proceeded on foot directly to the tower lobbies.

Among those units that failed to report to the West and Albany staging area were those responding to the fifth alarm for WTC 2. Interviews indicated that several units (probably including those responding to this fifth alarm) traveled past this staging area on their apparatus. After waiting approximately 23 minutes for adequate resources to arrive at the West and Albany staging area, CWTC-4E issued an additional second alarm for WTC 2. Units responding to this additional second alarm did report to the staging area.

At 9:47 a.m., the Incident Commander requested additional resources and issued a third fifth alarm for the incident. Units were directed to respond to the West and Vesey staging area.

The lack of staging had several effects.

- ¶ Chief officers on the scene, the Field Communications Unit, and Dispatch could not accurately track the whereabouts of all units.
- ¶ Units that failed to stage may have not received necessary information and orientation before going into the towers. As a result, several companies that were not from surrounding battalions had problems differentiating WTC 1 from WTC 2. Interviews with chief officers in command of the WTC 1 Operations Post indicated that several units that arrived there asked for confirmation of whether they were in the lobby of WTC 1 or WTC 2.
- ¶ If units had staged according to protocol, other units that were dispatched to the WTC might have been kept instead in the citywide pool. For example, the additional second alarm issued by CWTC-4E led to the dispatch of eight additional units to the incident.

¹⁶ A Mobile Data Terminal is a computer screen and printer in an apparatus (e.g., engine or ladder truck) that can receive and send data such as deployment instructions and confirmations.

Communications limitations emerge

A number of communications difficulties hindered FDNY chief officers as they coordinated the response. For instance, problems with radio communications left the chief officers in the lobby of WTC 1, and probably those in WTC 2, with little reliable information on the progress or status of many of the units they had sent up into the buildings. The portable radios that were used by the FDNY on September 11 do not work reliably in high-rise buildings without having their signals amplified and rebroadcast by a repeater system. The World Trade Center had such a system, but chief officers deemed it inoperable early in the response after they tested it in the lobby of WTC 1. With the repeater malfunctioning, the chiefs in the lobby of WTC 1 would not have been able to communicate with any units whose radios were tuned to the repeater channel, even if such units were just a few feet away from them. On the other hand, the command and tactical channels on these radios do support some, albeit unreliable, communications in high rises. Therefore, the chiefs decided to use their command and tactical channels¹⁷ for operations in WTC 1.

Radio communications between chief officers in the lobby of WTC 1 and the units they sent in the building were sporadic. The chiefs were able to get through to some units sometimes, but not others. Some units acknowledged receiving radio communications some times, but not others. This left the chiefs not knowing whether their messages failed to get through, whether the units failed to acknowledge because they were busy with rescue operations, or whether the units did acknowledge, but the acknowledgement did not get through. Because information about civilians in distress continued to reach the Operations Post in the lobby, the chief officers decided to continue their attempts to evacuate and rescue civilians, despite the communications difficulties. We believe that the chiefs and units in WTC 2 faced similar communications problems.

In attempts to improve their communications, chief officers tried to deploy the Department's mobile repeater and give units "standpipe phones" that could be connected to boxes along the building's standpipe system. These were all ineffective. Chief officers in WTC 1 had some success in getting information to units in high floors by instructing units in lower floors to relay messages to them.

When WTC 2 was hit, several chiefs who were in WTC 1 proceeded to that building, but first they coordinated with other chiefs the selection of command and tactical channels for the different towers.

¹⁷ Tactical radio channels are used for on-scene communications among chiefs and the units they command. Chiefs provide directions to units on this channel while units provide status reports to the chiefs and each other and request assistance. Command channels are used by chiefs at an incident to communicate with each other.

Chief officers in the lobbies of both towers also had very little reliable information about what was happening outside the towers, beyond their communications with the ICP. They had no reliable sources of intelligence and had no external information about the overall status of the incident area, the condition of the towers or the progression of the fires. For example, they had no access to television reports or reports from an NYPD helicopter that was hovering above the towers. This lack of information hindered their ability to evaluate the overall situation.

Threat of third plane is announced

At approximately 9:30 a.m., personnel in the lobby of WTC 1 heard an unconfirmed report of a threat from a third plane. Due to this announcement and communications problems that were constraining command and control capabilities, CWTC-4D broadcast over the FDNY tactical radio channel assigned to WTC 1 an order to all FDNY members to come down to the lobby of WTC 1. There was no acknowledgement by officers or firefighters of the order.

Shortly after the order was given, chief officers in the lobby learned that the threat of a third plane was false. At this point, the chiefs continued the search and rescue operations.

Most of FDNY's senior leadership responds to scene

As the mobilization of personnel and resources grew, most of the senior uniformed and civilian leadership of the FDNY responded to the scene, including all senior Fire and EMS operations officers. Out of 32 staff chiefs and members of the executive staff,¹⁸ 26 responded to the incident area, 22 of which arrived prior to the first collapse. Members of the executive staff who responded prior to the first collapse included the Fire Commissioner, Chief of Department, Chiefs of Fire and EMS Operations, and seven out of nine staff chiefs. The remaining two staff chiefs responded after the collapse of the towers.

The experience and leadership of these senior chiefs proved crucial to re-establishing command and control after the towers collapsed. However, had some senior officers remained at a separate, protected location with the appropriate communications infrastructure, they may have been better able to support maintenance or re-establishment of incident command and control. Or they could have improved management of the Department's resource pool to

¹⁸ The 32-member executive staff includes the civilian fire commissioners who are responsible for bureaus within the Department, along with the Chief of Department, Chief of Operations, the Chief Fire Marshall and the nine staff chiefs. Staff chiefs include the seven citywide tour commanders, the Chief of Safety, and the Chief of Fire Prevention.

ensure that all appropriate resources were sent to the scene, while at the same time fully protecting the rest of the city in case of another major incident.

Many of the senior civilian FDNY staff members who responded to the scene had no role or responsibility in the response.

WTC 2 collapse destroys Command Post

The collapse of WTC 2 at 9:59 a.m. killed many civilians and first responders and destroyed the Incident Command Post on West Street and the Field Communications Unit. The collapse weakened the command and control structure as Fire and EMS chiefs at the ICP, including the Incident Commander, sought shelter in nearby structures.

However at OP-1, in the lobby of WTC 1, the collapse of WTC 2 was not immediately apparent. Our interviews indicate that many believed that a partial collapse within the lobby of WTC 1 had occurred or that the elevators or other debris had fallen into the lobby of WTC 1. The lobby of WTC 1 filled with blinding dust and debris and became untenable. In almost complete darkness, firefighters, officers, chiefs and civilians were forced to leave the lobby of WTC 1. Prior to searching for an exit for himself, B1 issued an order at approximately 10:00 a.m. over the portable (handie talkie) radio for all FDNY members to evacuate WTC 1.

Many firefighters and officers operating in WTC 1 informed us that they were unaware that WTC 2 had collapsed when they heard the order to evacuate. Also, firefighters and officers on upper floors never heard the evacuation order. In some cases, these firefighters were told by other firefighters that the evacuation order had been issued.

WTC 1 collapse impairs incident command

After the collapse of WTC 2, the Incident Commander and personnel operating at the Incident Command Post moved north on West Street toward Chambers Street. However, the Incident Commander along with other members of the command and executive staff returned to the incident area to assess the situation and were killed at 10:29 a.m. when WTC 1 collapsed.

Between 10:29 a.m. and 11:28 a.m., incident command and control was seriously impaired. Several factors complicated efforts to re-establish it. Dispatch and the staff chiefs were unable to determine which chiefs had survived the collapses, where they were, what resources were available in different sectors of the incident area, if there was an ICP, and who the Incident Commander was. In addition, radio communications were difficult due to the large numbers of transmissions, which included attempts to locate personnel, mayday calls and company units seeking orders. Several chief officers, including Division Chief 6 (D6), the Chief

of Fire Prevention, CWTC-4A and CWTC-4C, took the initiative to re-establish the incident command and control structure. This process led to the emergence of multiple, sometimes co-existing ICPs (see Exhibit 4).

Incident command reestablished

At the request of Dispatch at approximately 11:28 a.m., a single ICP was designated at West and Chambers when CWTC-4C assumed Incident Command (see Exhibit 5 for sample exchanges between Dispatch and responding chiefs and for sample, illustrative quotes from interviews regarding the re-establishment of command).

The ICP remained at West and Chambers until approximately 6:00 p.m. and was then moved to West and Vesey, closer to the incident area, where it remained until the morning of September 15. At that time, the ICP was relocated to Engine 10 and Ladder 10's quarters at 124 Liberty Street. On Monday, September 17, the ICP was moved to larger premises at Battalion 1, Engine 7 and Ladder 1's quarters at 100 Duane Street.

RESOURCE DEPLOYMENT AND MANAGEMENT

The response of FDNY Fire Operations personnel to the World Trade Center on September 11 was unprecedented in scale and scope. More than 200 Fire units responded, approximately half of all units in the city. In the first three hours alone, 121 engine companies, 62 ladder companies, and 27 fire chief officers were assigned to the incident.¹⁹ This corresponds to 61 percent of engine companies, 43 percent of ladder companies, and 47 percent of chief officers (see Exhibit 6 for the resource deployment timeline and Exhibits 7 and 8 for apparatus and chief deployment).

Much of this massive response was ordered by chief officers as they dealt with an increasingly dangerous and challenging situation. However, some of the response occurred outside regular command procedures. The size of the response taxed the FDNY's efforts to effectively deploy and manage its personnel and resources.

Units ask to be dispatched to the WTC

For example, as the mobilization increased, a number of Fire units that had not been assigned to the incident – but wanted to help – contacted the Fire Dispatch

¹⁹ In addition to 183 ladder and engine units, nearly all special operations units of the Department were assigned to the incident.

Center repeatedly by radio, asking that they be authorized to respond. In some of these cases, Dispatch relented and assigned them. Many EMS and private ambulance units did the same with the EMS Dispatch Center. This complicated efforts by the dispatchers to manage the response and, in some cases, led to the deployment of units that probably would not have been deployed had they not insisted.

Self-dispatch of Fire units is minimal

Out of the more than 200 Fire units responding, only four proceeded to the incident without being deployed by Fire Dispatch. Of these units, two informed Dispatch that they were responding and demanded an MDT ticket assigning them to the incident. Two others proceeded directly to the incident without Dispatch's knowledge: one of these responded at approximately 9:20 a.m. after responding to an unrelated incident. Another unit sent a radio transmission regarding injured civilians on the 35th floor of WTC 1 despite the fact that Dispatch records at that time indicated that this unit was available at the firehouse.

Incident timing leads to response of off-duty firefighters

Another factor that increased the size and complexity of the response was the timing of the attack. Because the attack coincided with the change of tours in the firehouses at 9:00 a.m., numerous units responded with both night-tour and day-tour members. (Exhibit 9 contains examples of units responding with additional off-duty personnel who were ending their shift.).

In addition, other off-duty firefighters and officers reported to firehouses and directly to the incident scene in response to the recall issued by the Department. Some recalled firefighters responded to the scene by riding with on-duty units.

Normally, the officer in charge of each company knows the names of all firefighters and officers responding to an incident. At the start of every tour, the officer fills out a "riding list," a form recording the names of personnel assigned to each apparatus. One copy of the riding list is stored on the apparatus and the officer keeps another copy himself. Multiple riding lists were destroyed on September 11. This was one of several factors that prevented the Department from having accurate records of those who responded to the incident.

Recall mobilizes additional off-duty firefighters

The Chief of Department directed issuance of a recall of all off-duty firefighters and officers at 9:29 a.m. The recall order was broadcast by public media outlets and dispatched across FDNY radio channels. Thousands of off-duty firefighters and EMS personnel left their families to help the city and the Department respond to the attacks.

While the Fire Department had a recall procedure for Fire Operations personnel, it had not been activated for more than 30 years and personnel received no training in its activation. As a result, the recall was disorganized and ineffective. The initial recall order did not include specific directions on where firefighters were to report. Recalled firefighters responded to multiple locations, including directly to the incident area, the firehouse closest to their location at the time of the recall, their own firehouse, or to recall staging areas which were established and communicated later in the morning.

Our interviews revealed that the Department faced substantial logistical problems transporting and equipping members responding to the recall, even after they had assembled in recall staging areas or had deployed to the incident area. All reserve apparatus and vehicles were put in service with recalled personnel. They were used at the WTC incident as well as to augment citywide coverage.

Mutual aid request brings Nassau and Westchester units

Before September 11, the FDNY had rarely requested mutual aid from departments outside the city to support fire operations. The Department had no process for evaluating the need for mutual aid, nor any formal methods of requesting that aid or managing it. Therefore, the Department had limited ability to evaluate how mutual aid could be integrated into its operations. However, due to the magnitude of the WTC incident, FDNY personnel sought mutual aid from Westchester County at approximately 10:07 a.m., and from Nassau County at 10:23 a.m.

These initial mutual aid requests did not specify the level and type of resources needed. In addition, the FDNY did not have adequate information on the resources and capabilities of departments in surrounding cities and counties (e.g., the size, capabilities and expertise of different units). And, the FDNY had minimal operational training with surrounding fire departments, and hence had limited ability to evaluate whether and how resources from other departments could be integrated with the FDNY's operations. For instance, it could not tell whether procedures could be integrated, equipment could interoperate, and whether the capabilities of units with the same names (e.g., rescue or hazmat) were comparable.

Our interviews and review of dispatch tapes indicate that mutual aid received from neighboring fire departments on September 11 consisted primarily of engine and ladder units. Some mutual aid units deployed to staging areas. Some deployed directly to the incident and others were paired with FDNY units to help maintain citywide coverage.

Personnel tracking systems were insufficient

FDNY systems to track personnel at incidents proved insufficient on September 11, as they lacked accuracy and were lost when the towers collapsed.

The FDNY Field Communications Unit was responsible for tracking the assignment of Fire units to different alarms, the release of units from the staging area to the incident area and unit locations at the incident. This unit worked next to the Incident Command Post and kept records on a magnetic command board, using small magnets placed on a diagram to indicate unit locations. This record was most likely inaccurate because many units went directly to the tower lobbies instead of their assigned staging areas. Field Com was destroyed at 9:59 a.m. when WTC 2 collapsed, and all unit assignment records were lost since the FDNY Field Communications units cannot create a remote back up of deployment records.

FDNY protocols also provide that operations posts at major incidents keep detailed records of deployments within their area of responsibility. A communications coordinator (Comcord) is designated at each operations post, responsible for tracking unit assignments and managing communications between tactical and command channels. Like Field Com, the Comcord uses a magnetic command board for record keeping. The Comcord sketches the building with a marker on the command board and places magnets designating individual units in the appropriate locations on the sketch to represent each unit's location within the building. In this case, the operations posts were located in the lobbies of the two towers. B2 was designated the Comcord in the lobby of WTC 1. It is likely that this procedure was also carried out in the lobby of WTC 2.

Radio difficulties on September 11 contributed to the complexity of keeping accurate records of individual units and tracking their progress. After units were given their assignments, the only way for the Comcords and other chief officers to track their whereabouts was through radio communications. Comcords could not ascertain, without a radio query and a response, whether units assigned to search a specific floor had reached that floor or the location of an individual firefighter in danger.

The command boards utilized by Comcords at the operation posts were destroyed when the towers collapsed. Just as with Field Com, all the information captured on them was lost, as there were no methods in place to back up the records of unit assignments.

The limitations of this tracking system were not unique to the response to the World Trade Center incident. However, the magnitude of the response, difficulties with in-building communications and the response from off-duty firefighters on September 11 significantly increased the uncertainty of firefighter

and unit locations. As a result, following the collapses, the Department could not quickly create a reliable list of missing and dead personnel.

Inter-agency coordination was minimal

Throughout the response on September 11, the FDNY and NYPD rarely coordinated command and control functions and rarely exchanged information related to command and control. For example, there were no senior NYPD chiefs at the Incident Command Post established by the Fire Department. We believe there were very limited communications, either directly or through a liaison, between senior FDNY chief officers and the senior officers in charge of the NYPD response. In addition, some potentially important information on the structural integrity of the buildings never reached the Incident Commander or the senior FDNY chiefs in the lobbies.

The evacuation and subsequent destruction of the headquarters of the city's Office of Emergency Management (OEM) in WTC 7 further impaired the coordination process among the FDNY, NYPD and other responding agencies on September 11.

Citywide coverage was maintained

As FDNY committed large numbers of units to the WTC incident, it followed existing procedures and protocols to maintain citywide coverage for fire operations. During the initial three hours of the incident, Dispatch relocated 68 units throughout the city to ensure coverage. In addition, at 9:00 a.m., FDNY reverted to a response status known as "Fallback 3" at the discretion of the Bureau of Fire Communications. Fallback refers to a situation in which the normal response to an alarm is lowered during a period of inordinately heavy fires or during an emergency that affects an entire borough or boroughs. This lowered response means that fewer units will respond initially to a first alarm and that additional units will be committed only after further evaluation. Fallback 3 corresponds to the minimum apparatus response to an alarm.

Dispatch also created several dispatch staging areas and directed resources in the citywide pool to these areas to facilitate resource management and expedite the response time to the WTC incident.

Even with the commitment of a massive amount of resources by FDNY to the WTC incident and the significant loss of resources resulting from the collapse of the towers, citywide coverage for regular fire operations was maintained. Average fire incident response times on September 11 did increase, but only by about one minute, to an average of 5.5 minutes. The total number of calls for fire related assistance received on September 11 was comparable to the same 24-hour period the previous year, 2,322 versus 2,225 respectively. Response times within the city

returned to normal on September 15 and thereafter. The Bureau of Fleet and Technical Services immediately began repairing apparatus and replacing equipment so that firehouses could be returned to service.

Citywide coverage for special operations was minimal

While the Department maintained citywide coverage for regular fire operations, it committed nearly all of its special operations units to the incident, leaving the remainder of the city with extremely limited special operations coverage.

Among the special operations units committed were the Hazardous Materials unit (Hazmat), High Rise units, a Field Communications²⁰ unit, the Mobile Command Center unit, all the Rescue units and six out of seven Squads.²¹ Citywide Tour Commander 4D ordered Fire Dispatch to keep one Rescue Unit available for the rest of the city. However, that rescue unit contacted Dispatch multiple times asking that it be deployed until Dispatch relented and assigned it to the incident. As a result, prior to the collapses, all rescue units had deployed to the World Trade Center (see Exhibit 10).

The FDNY has just one Hazmat Unit, which was committed to the World Trade Center. Had there been another hazardous material incident in the city, terrorist-related or not, the Department's ability to respond would have been minimal. The one Squad that was left in reserve would have been able to carry out some hazmat tasks but not a prolonged, large or complex operation in the absence of the equipment, capabilities and specialized supervision of the Hazmat unit.

In addition, post-collapse, the FDNY's Marine Division was the primary source of water for all fire fighting activities on the west side of lower Manhattan. The pumping capabilities of the boats on September 11th and on succeeding days were below design capacity due to mechanical problems. A privately owned boat provided much additional pumping capacity.

²⁰ The Field Communications unit that was deployed and later destroyed was the Department's spare; the primary vehicle was out of service for maintenance reasons. Normally only one unit is on duty at any one time.

²¹ A Squad is a specially trained and equipped engine company with expertise in hazardous materials, rescue and other special operations capabilities.

PLANNING AND LOGISTICS

During the FDNY response on September 11, officers were not selected to coordinate planning or logistics functions²² on a dedicated basis (see Exhibit 11 for the planning and logistics timeline).

In accordance with usual FDNY practices, we believe that, before the collapse of WTC 2, the Incident Commander carried out needs assessment and resource tracking functions, with the assistance of Field Com. Personnel at the Incident Command Post were assigned tasks as needed to support the response in these areas.

However, the Incident Commander and the chief officers responsible for the operations posts were required to make decisions on these matters lacking some important information, including: reliable intelligence, media reports, aerial video coverage, or verbal reports from helicopters on the condition of the towers and traffic. After the buildings collapsed, planning and logistics requirements grew well beyond anything FDNY had experienced before.

For instance, the logistics required to support the search, rescue, and recovery operations after the collapses were massive and unprecedented for the FDNY. Our interviews suggest that the distribution of equipment (e.g., radios, self-contained breathing apparatus) may not have been adequately managed and tracked on the afternoon and evening of September 11, and as a consequence, equipment was not utilized or was lost.

In the days immediately following September 11, planning and logistics improved significantly. On September 15, a dedicated Battalion Chief was assigned as the planning chief for the incident. In addition, the U.S. Department of Forestry Incident Management Teams (IMTs), who arrived on September 13th, and the U.S. Army Corps of Engineers provided assistance with traditional planning functions and documentation. These included creation of sector logs, which are a recording of all events and actions that took place in a given sector each day. IMTs also helped create incident action plans, which outline the response plan and the resource requirements for the next 24 hours. The presence of the IMTs supplemented the FDNY's resource allocation and site mapping capabilities and enabled it to substantially improve coordination among various agencies and other parties operating at and around the incident site.

In addition, after September 11, IMTs, along with the city's Office of Emergency Management, construction companies and private donors, aided with logistics

²² Incident planning includes determining resource requirements and managing information flow. Logistics includes managing the deployment and tracking of supplies and equipment.

coordination. An FDNY Deputy Chief was assigned as the logistics chief on September 18. Thereafter, he was responsible for leading a team to manage the logistics requirements of the incident and for addressing any safety issues. Early in October, an additional dedicated deputy chief assumed overall safety responsibilities for the site, including managing the safety officers who were already operating there. This enabled the separation of logistics and safety responsibilities.

FAMILY AND MEMBER SUPPORT SERVICES

The Fire Department has a proud tradition of supporting its members and their families when members are injured, killed, or missing. The procedures used by the FDNY to notify families that loved ones had been injured or killed, and the type and level of post-incident counseling and support given to members and families have changed over the years. However, the Department has always provided honorable, personal, and deeply felt support to its members and their families in the most difficult moments.

Faced with an unprecedented number of casualties on September 11, the Department had difficulties providing the appropriate level of support and care to its members and their families in a consistent way.

In the aftermath of the collapse of the towers, several factors made it extremely difficult for the Department to create an accurate list of personnel missing or deceased. For one thing, there was a lack of accurate records on who responded and where they were. In addition, many firefighters remained on site to help the search and rescue operation. And, the Department did not have a complete, accurate personnel notification database with records of whom to contact in case of death or injury to a member.

As a result, the Department could not provide reliable information to families immediately after the incident. There were substantial delays in notifying family members of the loss of loved ones, and the procedures to notify families varied over time, ranging from visits by retired chiefs to phone calls from the site.

The Department set up on-site counseling services for firefighters and, within a week, established remote counseling locations in Manhattan, Queens and Staten Island. However, the magnitude of the incident and the ensuing counseling needs overwhelmed the infrastructure of the Department's Counseling Services Unit. The unit's challenges at the time included evaluating, pre-screening and securing funding to pay for counselors.

Over the past several months, the Department has started to formalize several processes it developed in response to the counseling and support needs of members and their families. For example, in January, the Commissioner

appointed an assistant commissioner for family assistance to coordinate activities that meet the needs of members and their families.