

**Houston Fire Department  
Emergency Operations  
Quality Assurance Report**

Incident #0703280557

Four Alarm Fire

@

9343 North Loop East

Three Civilian Fatalities

With

Three Firefighter Injuries

**Introduction**

In the late afternoon of March 28, 2007, the Houston Fire Department received a report of a fire at 9343 North Loop East.

**Building Fire Response Companies dispatched at 1711 hours**

- District Chief 45 and 20 ("D45" and "D20")
- Engines 45, 41, 43, and 27 ("E45", "E41", "E43", and "E27")
- Ladders 45 and 44 ("L45" and "L44")
- Safety Officer 23 ("S23")
- Medic 43 ("MD43")

**Second Alarm Companies dispatched @ 1722**

- District Chief 19, 34, and 8 ("D19", "D34", and "D8")
- Engines 32, 20, 19, and 53 ("E32", "E20", "E19", and "E53")
- Ladders 20 and 34 ("L20", and "L34")
- Ambulance 41
- Safety Officer 15 ("SF15")
- Cascade 23 ("CC23")
- Rehab 17
- Ambulance Supervisor 17 ("ASO17")
- Rescue 42 ("R42")
- Engine 8 ("E8", a high pressure engine)
- Communication Van 11 ("CV11")

**Third Alarm Companies dispatched @ 1743**

- District Chief 26 and 31 ("D26" and "D31")
- Engines 15, 39, 12 and 17
- Ladder 56 and 29
- Senior Ambulance Supervisor 33
- EMS District Chief 11 ("EMSD11")

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#### **Fourth Alarm Companies dispatched @ 1808**

- District Chief 6 and 64 ("D6" and "D64")
- Engines 13, 60, 75, and 83
- Ladders 7 and 6 ("L7" and "L6")

#### **Additional units responding**

- Executive Assistant Chief #2
- Staff District Chief #13, 15, and 17
- Rescue Chief 11 ("RC11")
- Water Supply Officer
- Arson Units 718, 727, and 708
- Ambulance Supervisor 29
- Ambulance units 32, 39, 27, 508, and 19
- Medic Units 44, 56, 49, and 59
- Squad 34, 18
- Medical Director 5

Time stamped transmissions from the Office of Emergency Communication's ("OEC") dispatch recordings, in conjunction with verbal and written statements given by responding personnel are used throughout this document in an effort to create a time line of events. Communications are paraphrased in order to maintain continuity and understanding of the events. OEC provided a Compact Disc ("CD") to Quality Assurance for this purpose.

### **Abridged Time Line**

- |      |  |
|------|--|
| 1709 | 911 Call Intake takes the first 911 report of a fire at 9343 North Loop East. In all, 911 Call Intake receives a total of twenty-three (23) 911 calls concerning this fire.  |
| 1711 | OEC dispatches HFD building-fire response box-alarm units to 9343 North Loop East.   |
| 1712 | Original box alarm is upgraded to a High Rise box.   |
| 1714 | D45 asks for a TAC channel, and is given TAC 7. SC27 asks to be added to the alarm.  |
| 1716 | D45 arrives on-scene and reports smoke and fire coming from the "3 <sup>rd</sup> and 4 <sup>th</sup> floor" of a 5 story building (the building is 6 stories in height, and the fire is coming from the 5 <sup>th</sup> and 6 <sup>th</sup> floors). D45 |

assumes North Loop Command ("NLC") and asks for traffic control on the freeway frontage road at Gelhorn and on the exit and entrance ramps to the freeway. Command tells E44 to stretch two 4" lines and tells L45 to raise a ladder to the 4<sup>th</sup> floor. D20 reports that he is held up by a train.

OEC notifies NLC that there are "trapped" people on the 4<sup>th</sup> and 5<sup>th</sup> floors. NLC clears. 911 Call Intake receives a call from victims trapped on the 5<sup>th</sup> floor (Ms. Hargrove talks to the call taker. Ms. Ellis is with Ms. Hargrove).

- 1718 OEC notifies NLC that there are reports of people trapped on the 4<sup>th</sup> and 5<sup>th</sup> floor. SF23 reports that there are "Broke windows on the I-10 side." NLC tells E45 to set-up Lobby Control.
- 1719 E27 reports to NLC that there is "a guy hanging out the window"; NLC directs L44 to go to the "A-side" and set up his ladder for rescue on the 4<sup>th</sup> floor. 911 Call Intake talks to Ms. Hargrove and asks her if she can hear them (the fire apparatus). NLC E41 to stretch two 4" lines to the base of L45. All companies clear on the orders given.
- 1721 - 1722 L45 reports a "bottle going off." NLC calls for a 2<sup>nd</sup> alarm. 911 Call Intake tells the trapped occupants to stay low and keep on the floor. 911 Call Intake asks Ms. Hargrove if she doing "OK." The 2<sup>nd</sup> alarm is dispatched. Ms. Hargrove's verbal response is decidedly weaker. (L19 is added to the alarm via simulated dispatcher @ approximately 1722)
- 1723 E27 notifies NLC that there is "fire blowin' out all windows on the front... to the front door". NLC sends E43 to the Lobby, so that he can go with E27 to the 3<sup>rd</sup> floor, and asks him to give a report "when you get there." L19 tells NLC that they are en route and will be on scene in approximately 3 minutes, NLC clear.
- 1726 NLC orders L45 to put an elevated stream into the window to knock the fire down because the area is "untenable" in the front. E27 reports that there is no visibility in the lobby and states they need ventilation. NLC is unable to understand the request and asks for them to "slow down and repeat" their message.

On the 5<sup>th</sup> floor, Ms. Hargrove is barely able to speak to 911 Call Intake.

1728 NLC repeats order to L45 to set up elevated streams to knock the fire down as soon as they get the victims down and repeats the area is becoming untenable. Electronic Accountability is in effect. L44 reports to NLC that they have a victim on their ladder. M43 is sent to assist L44.

E19 and L19 report they are on location and are sent to the Bravo Division to begin searching for victims on the 4<sup>th</sup> or 5<sup>th</sup> floor. NLC tells them that water is being used from the outside, but that it should not affect their search.

NLC assigns D19 as Bravo Division and tells him that L19 and E19 are in his division with E41 as RIT. OEC notifies NLC that victim on the 5<sup>th</sup> floor and is running out of air.

911 Call Intake attempts to contact Ms. Hargrove, but she does not answer.

1731-1734 NLC asks for a progress report from E27. D34 is assigned Charlie Division (directed by NLC, as in the rear). L44 reports that the victim is down and that M43 and AS29 is helping the victim. OEC notifies NLC that there are reports of multiple victims on the 5<sup>th</sup> floor. NLC tells OEC that he is aware of the situation and that firefighting crews are attempting to get there. NLC instructs E20 to stretched 2 lines into "Sector B." E20 clears on the assignment.

OEC tells NLC that a victim is reportedly on the ledge on the I-10 (Delta Division) side of the fire, which cannot be seen by crews.

911 Call Intake continues its attempts to contact Ms. Hargrove to tell her that HFD is pulling people out of the building and that it needs to know what room she is in. 911 Call Intake repeats that units are trying to get to her and asks if she is still there. 911 Call Intake hears some weak coughing, but no verbal reply from Ms. Hargrove.

1735-1739 NLC requests 3 additional ALS units (1737). E8 reports on location and is told to report to the Charlie Division. L34 reports it is staged in front of the building, whereupon it is ordered to go to the Charlie Division and set-up. D34 asks for lines to be stretched to L44, so that L44 can apply heavy streams to the fire. NLC replies that E20 is stretching lines in. E20 reports that they will have to shut the water supply down in order to hook-up to supply companies. L45



reports that rescue is complete. E45 asks for the apartment lay to be charged.

There is no verbal contact from Ms. Hargrove on the 5<sup>th</sup> floor; however, snoring is heard over the phone line.

1740-1742 L19 asks for a report of the fire conditions on the 5<sup>th</sup> floor and whether most of it has been knocked down. E27 notifies NLC that they have about 2 minutes of water supply available on E45's apartment lay. Charlie Division asks for a fan to help ventilate the lobby. L44 repeats his request for someone to stretch a supply line to them. E19 tells L19 that members are low on air, so they will have to go down the stairwell. OEC notifies all medical personnel to switch to TAC 5.

1742 NLC requests a 3<sup>rd</sup> alarm. There is no contact with victims on the 5<sup>th</sup> floor; however, banging, which is most likely from E19 and L19 in the stairwell, is heard over the phone.

1742 -1746 E27 Captain E/O27 to tell him to get the 1-hour air bottles ready. NLC tells all companies at the fire to use 1-hour air bottles for rescue purposes. NLC tells T18 to setup on the front of the building. NLC calls L44 and asks if they are committed to rescue; he receives an affirmative answer. NLC asks L44 if the roof is clear; L44 states the roof is clear. Lobby control asks if there is "anyway to ventilate the roof of this building." E19 and L19 notify NLC that they are coming down for air. NLC tells Bravo Division that he is committing more crews to the Bravo Division. T18 replaces L45 as L45's ladder pipe is broken.

There is no contact with the victims on the 5<sup>th</sup> floor, and no snoring is heard.

1747-1752 NLC commits E8 to Bravo Division and asks L44 if they can get to the roof. When NLC receives an affirmative response, he tells L44 to check the roof hatches. L44 answers that he received.

OEC tells NLC a PAR is due, and there are victims on the 5<sup>th</sup> floor.

Bravo Division reports that he needs air bottles where the lines are placed (Charlie Division). NLC orders air bottles to the Bravo/Charlie Division. L45 reports to NLC that his ladder pipe is not working. NLC replaces L45 with T18.

Sound can no longer be heard from the victim's phone on the 5<sup>th</sup> floor.

1754-1800 E45 declares that they are out of water on the apartment lay. NLC calls E20 to ask if he is supplying the lines; E20 responds that he has more pressure if he needs it. NLC calls L44 to ask about the status of the roof hatch and if there is anyway to get them open; L44 responds, "getting men there right now."

E19B reports that he is lost. Someone asks him, "Where are you?" NLC asks E19 his location. L19 replies that his crews are coming out for air and that he is trying to find all his crew. NLC tells all traffic to halt; a firefighter may be lost.

E8A reports to NLC that they are on the 5<sup>th</sup> floor trying to do a search. NLC states that he cannot understand E8, D19 tells NLC that E8 and D8 are on the 5<sup>th</sup> floor. NLC reports that the wall is separating on the Charlie Division and tells all companies to back-up. E8 states that search of the 5<sup>th</sup> floor is not possible. Bravo Division asks E8 to repeat his message. D19 asks for crews, with RIT equipment, to come to the rear stairwell.

1801-1803 E8A reports he has found a victim, but he needs help because he cannot . . . by himself. This is also heard across one of the victim's cell phone. NLC asks E8A what side of the building and floor is he on. E8A states that he coming out and that he has a victim.

NLC calls for R42. Bravo Division calls for RIT to come to the northeast corner of the building with their equipment. NLC tells Bravo Division that "R42 is headed your way."

1804-1807 E8A calls for "Mayday" and states that he is in the hallway on the 5<sup>th</sup> floor, needing help. NLC tells D19 to commit people to the stairwell.

E8A reports to NLC that he is on the 5<sup>th</sup> floor and has a victim. NLC tells him, "I need you to come down!" and "R42 is en route to you." D19 informs NLC that R42 and E27 are going up the stairwell. NLC says that E8 is coming down the stairwell and is "in duress".

E8A reports that he at a window on the 5<sup>th</sup> floor and out of air. This report is heard on the open cell phone line on the 5<sup>th</sup> floor, together

- with the sounds of banging and breaking glass. NLC asks what floor he is on. E8A replies that he is in a room. NLC calls Bravo Division to ask if he had any luck opening up the building.
- 1807 Per HFD guideline, OEC initiates a 4<sup>th</sup> alarm after making three (3) attempts to contact NLC about the Mayday.
- 1808-1813 Following the 4<sup>th</sup> alarm dispatch, NLC informs all companies that there is a "Mayday" and repeats his question to E8A concerning which floor and side of building he is on. NLC asks D19 if crews have been committed to the stairwell, D19 answers, "Yes, R42 and E27." NLC tells companies to "hold back on the lines" and asks L20 if they can make entry. AS29 tells Command that there is a captain trapped on the 5<sup>th</sup> floor and inquires if this is the same person that the "Mayday" is for. NLC asks for a progress report, and D19 states there has been no report from RIT.
- 1813-1817 D31 (Alpha Division) asks to break out windows on the Bravo Division. NLC calls D19 to tell him that E8A is supposed to be in a stairwell on the northeast corner of the 5<sup>th</sup> floor. D19 replies that he has "folks in the stairwell." NLC asks D19 if he needs air bottles; D19 replies that he needs fire crews. D34 states that he has a ladder pipe ready to flow on the northwest corner and asks if NLC wants it on. NLC replies, "Yes." R42 and E27 report that they are coming down [the stairwell].
- 1817 D19 reports that E8A is not in the stairwell. OEC notifies NLC that he heard E8A say he is near a window.
- 1819 NLC contacts E8A and asks for his location. E8A states that he is across the building from "where you are" (NLC is located on the Charlie/Delta corner).
- 1820 NLC orders that the windows on the Bravo Division be broken. L45 asks NLC if they can sweep the building [with aerial streams on the Delta Division].
- 1822-1826 E8A's TPASS registers in alarm on the electronic accountability box at 1822. NLC calls E8A to tell him that he is in alarm and to inquire about his condition. L44 is heard saying "guys come on down." NLC calls E8A again, notifying him that he is in alarm. NLC calls E8A twice more, but gets no reply. On the third request, however, E8A is heard breathing heavily. D19 requests that more companies be

sent into the stairwell. NLC states he is sending E17 and E15, along with Rescue 11 and Rescue Chief 11. NLC contacts L20 to ask him if he is going to make entry. There is no reply. NLC tells D19 that E17 and E15 are coming to him.

- 1826 L19 reports that they are going to the roof on the northwest corner to open the stairwell hatch. RC11 reports to NLC that there are no crews actively searching the 5<sup>th</sup> floor. E17 reports that they are ascending the stairwell. D31 tells NLC that they are going to advance an apartment lay with a 1 ¾" line up L20 on the Bravo Division and initiate search on the Bravo Division. E17 reports that they are about to enter the stairwell.
- 1830 L20 reports that they located a firefighter in a window. NLC asks L20 to repeat his message; L20 reports that E8 is accounted for and is out of the building. D31 requests an ALS be sent to his location. D19 asks if E8 has been accounted for; NLC reports that all members of E8 are accounted for.
- 1836-1840 NLC assigns D19 the Alpha Division and tells RC11 that D19 is to conduct a search of the building and direct the fire attack. NLC contacts multiple companies and tells them to exit the building. NLC calls RC11 and tells him to have companies come out of the building; no reply from RC11.
- 1841-1843 NLC orders all companies out of the building. OEC asks if NLC wants him to order all companies to exit the building. NLC states he does because all rescue operations are complete.
- 1843-1855 NLC calls RC11, but gets no response. D31 asks if he can begin ladder pipe operations after the building is evacuated. NLC tells D31 that he still has a report of victims on the 5<sup>th</sup> floor and tells L20 to initiate rescue operations in the same area where the captain from 8's was found.

NLC ask if Bravo Division/D31 received his orders, but there is no reply. L44's ladder pipe is down, but can be put back into operation. L44, however, suggests sending someone else. NLC and D19 discuss replacing L44 with other trucks. D31 tells E39 and E12 to stay close to the window they are at. RC11 reports that the 4<sup>th</sup> floor primary search is complete and that they are going to the 5<sup>th</sup>.

E39 reports to NLC that he has found two victims on the 5<sup>th</sup> floor; NLC tells E39 to bring them out. NLC contacts EMSDC11 and tells him he has two victims coming out. NLC is updated that there is a third victim. EMSD11 tells NLC that he has units to assist the victims.

NLC gets fire condition updates from Alpha and Bravo Divisions.

1855 E12 reports to NLC that the victims are deceased and that it is not possible to remove them from the building. NLC states that he received E12's message and announces that there is "No Rescue."

1856 RC11 asks Emergency Traffic to report that there has been a partial collapse on the 5<sup>th</sup> floor; he reports the primary search is complete on the 5<sup>th</sup> and 4<sup>th</sup> floor and that they are going to the 3<sup>rd</sup> floor. NLC asks R11 if he is exiting the building at this time, but is R11 tells NLC that he is going to the 3<sup>rd</sup> floor. NLC repeats and then clears the message.

1857-1900 NLC asks D34 if he is in Delta Division, and he replies that he is on the northwest corner of the building (Alpha/Bravo Division).

NLC begins a PAR, calling specific companies and asking if they have PAR. D20 reports that all personnel conducting the search on the 5<sup>th</sup> floor (E39 and E12) are on the ladder and out of the building. NLC asks what division D34 is in, and D34 states that he is on the northwest corner of the building, using L19 to extinguish fire on the 5<sup>th</sup> floor.

1902-1905 D46 contacts OEC by phone and tells them the structure looks unstable. OEC notifies NLC, who then contacts R11 and RC11 to ask for their location. RC11 responds that they are leaving the building. NLC asks if they are exiting the building. RC11 responds they are on the 2<sup>nd</sup> floor. NLC asks if search is complete on the 3<sup>rd</sup> floor. RC11 responds that it is and that they are now searching the 2<sup>nd</sup> floor. D46 contacts NLC via radio to tell him that the roof appears to be weakening on the side where most of the fire was; NLC clears with "Partial collapse."

1906-1911 D19 reports that he has one company doing a search of the 1<sup>st</sup> floor, two companies on the 2<sup>nd</sup> floor, and three companies on the 3<sup>rd</sup> floor. NLC asks for D19 (Alpha Division) to repeat his message. When he does, NLC tells D20 (Bravo Division) to hold up on

sending companies because D19 is going to do the search. RC11 asks NLC who he wants to do the search--him or D19. RC11 reports the 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> floors have already been searched. NLC tells RC11 that he is sending E83 and E56 to the Bravo Division to assist him.

During this time, there is no response from most of the companies being called. NLC tries to contact D19 to get a report on fire conditions on the Alpha Division, but gets no response. Some companies have gone to the Simplex mode on their radios, and only NLC is heard across OEC recordings.

1911 NLC taps the fire out, holding the first 3 alarm companies.



## **Operational synopsis**

### ***First Alarm***

D45 states that he saw smoke rising from the east side of a multi-story building while en route to the alarm, that he asked for a TAC channel and that OEC gave him TAC 7. D45 further reports that he saw heavy fire and smoke conditions coming from the 5<sup>th</sup> and 6<sup>th</sup> floors (OEC TAC 7 transmission recorded "from the 3<sup>rd</sup> and 4<sup>th</sup> floors").

When D45 arrived in the driveway of the building, he assumed North Loop Command and told E41 to stretch two 4" supply lines to the base of L45 and to become RIT. E41 stretched the lines into E27, which supplied L45. E41 retrieved the RIT kit from D45 and staged on the Alpha Division. E45 and L45 arrived at the same time and were ordered to the south side of the building (Delta Division). D45 states that he told E45 and L45 that this was a rescue operation (This statement was not transmitted on TAC 7. OEC TAC 7 transmission recorded NLC telling L45 to set up his ladder for rescue of people on the 4<sup>th</sup> floor).

As L44 approached the location on the feeder, NLC instructed him to setup on the west side (Alpha Division) to perform rescue operations. E45 was ordered to establish lobby control and stairwell access.

E27 and SC27 arrived on location. NLC sent E27 to the east side (Charlie Division) to secure the stairwell and assist occupants as needed. SC27 joined NLC at the Command Post (located on Charlie/Delta Division). D45 told SC27 that he was requesting a 2-11 and that this was rescue operation (OEC TAC 7 transmission recorded the 2<sup>nd</sup> alarm request, but not the rescue operation message). SC27 states that while he did not formally assume command, all decisions concerning the operation were discussed between SC27 and D45.

D20 was delayed on the initial alarm; he was assigned lobby control when he reported to the Command Post. D20 quickly reported to NLC face-to-face that lobby control could not be sustained due to heavy smoke conditions that were approximately 18" from the floor.

E45 reported that when they arrived at the Charlie Division, smoke conditions would not allow them to set-up lobby control; therefore, they went to the Alpha Division to gain entrance, where they found the same conditions, as well as glass falling from above. They returned to the Charlie Division, where they found that E45E/O had stretched an apartment lay to the entrance of the rear door. E45, E27 and E43 entered the lobby with one 1 ¾" attack line and made their way to the stairwell. All companies state that they encountered heavy smoke conditions,



but were able to advance the attack line to the 3<sup>rd</sup>, or possibly the 4<sup>th</sup>, floor via the stairwell. Conditions were getting worse, and all agreed to exit the building.

E27 reports that his crew was low on air supply, that he informed NLC of what had happened and that he recommended all companies use one hour air bottles. NLC told all companies to use 1 hour air bottles for rescue purposes.

OEC contacted NLC and told him there was a report of trapped victims on the 5<sup>th</sup> floor. D20 was moved to the Bravo Division, where he reported "nothing visible" and where he stayed for the remainder of the fire. After exiting the building for fresh air bottles, E45 reported to NLC for re-assignment. NLC told E45 to take over electronic accountability and the crew status board; E45 remained at this position until released to service.

L45 initiated rescue efforts for trapped victims on the 6<sup>th</sup> floor and removed two occupants. NLC ordered L45 to put water on the fire on the 5<sup>th</sup> floor; however, the ladder pipe would not elevate. NLC was told of the situation, and L45 lowered the ladder to the 4<sup>th</sup> floor, where they removed an additional five occupants. After removing the occupants, mechanics were able to put the ladder pipe in service, and L45 was utilized in fire control.

L44 was the second truck dispatched on the initial box and reported to the Alpha Division; they performed a rescue of an occupant trapped on the 6<sup>th</sup> floor. The occupant was handed off to EMS personnel and transported to Hermann Hospital. NLC ordered L44 to check the roof for roof hatches. L44 states that, when he checked the roof, "visibility was terrible; the fire was spreading in our direction and the fact that there was probably a 4' to 6' drop from the ladder to the roof, I [the captain] made the decision not to get on the roof." NLC states that L44 reported a "partial collapse of [the] parapet wall and roof not tenable."

#### *Second Alarm (Interior)*

Prior to the transmission of the second alarm, E19, L19 and D19 listened to the events from at Station 19. They notified OEC that they were going to respond to the alarm; therefore, they arrived very soon after NLC requested the second alarm (L19 does not appear in the OEC event history). D19 was assigned the north side of the fire and told to continue to try to secure the stairwell. L19 was told to position on the south side (Alpha Division).

D34 arrived and was assigned to Bravo Division but it was actually Delta Division, where he directed E27 to supply L45 and to shut down their deck gun operations. He later established a water supply to L44 and a relay, with the help of WSOs and E/Os from various companies.

E20 reported to the Command Post and was told to supply E27 from the hydrant from which E41's lines were stretched. E20 completed this task, following all HFD guidelines concerning hook-up and communications for cutting water supply to an engine company prior to hook-up. E19 and L19 were committed to Bravo Division and D19 to attempt rescue via the stairwells; however, D19 relocated to the Charlie Division and assumed Lobby Control.

The crews assembled the equipment they would need, including rabbit tools, forcible entry tools, and a Thermal Imaging Camera. Both companies entered the building, reported to D19 in the lobby, and entered the stairwell. They reported zero visibility and high heat condition. L19 Captain took the lead up the stairwell with all members of L19 and E19. E19 Captain took the rear to ensure accountability of all personnel during their ascent. The two crews state they followed the 1 3/4" hand line stretched by previous companies. They passed E27 about the 3<sup>rd</sup> floor and told the captain to get to the side because they are all coming up the stairs to get people off the 5<sup>th</sup> floor. There was some discussion about the line E27 was attempting to stretch. L19 Captain told him to do the best he could, but they [E19 and L19] needed to get to the 5<sup>th</sup> floor quickly to begin the search. Smoke and heat conditions continued to worsen as the crews advanced up the stairwell. When L19 reached the 5<sup>th</sup> floor of the building, the captain checked to see if everyone was still behind him. As he looked out onto the 5<sup>th</sup> floor, there was no visible fire. L19 asked for a report on fire control and whether the fire had been knocked down. L19 informed NLC that they would be operating on the 5<sup>th</sup> floor. A left hand search was initiated, while the captain used his right leg to sweep for victims. When he came to an open door, he would call out, hold his breath, and listen for a reply. He heard no reply and returned to the stairwell to start searching with both crews.

E19 Captain reports that some of the crew was starting to show low air supply. After some discussion, L19 Captain told E19 Captain to make sure all members had adequate air supply. L19 Captain took one firefighter and began a right hand search of the hallway. He found a hose cabinet and told the firefighter to open it and stretch the hose line, so that it could be used as a guideline. They used the line to make sure they could return to the stairwell and not become separated from the remaining crewmembers.

When they returned, E19 Captain told L19 Captain that some members were showing low air supply. After some discussion, it was determined that all members would return to the lobby. As the members of Station 19 were coming down the stairwell, Command called for a third alarm. As Station 19 continued down the stairwell, they passed E8 as they were ascending the stairwell. L19 told

E8 Captain where the exit door was and how to get to the 5<sup>th</sup> floor. Visibility was zero, so L19 does not know on what floor this discussion took place.

As L19 and E19 exited the stairwell, the captains attempted to account for all members. E19 could not account for all members. A search for the missing member began immediately. Radio traffic was extremely busy, thereby making it impossible to contact the missing member. D19 was contacted face-to-face to see if he had seen the member; he had not. L19 Captain and other members re-entered the building to begin searching the first floor. Shortly after entering the building, the member was reported as being out of the building (he had broken a window and exited). The two companies had gone to replace air bottles and report for a much needed rehab when they heard the "Mayday." They reported to the Command Post and told #13 they were ready to go; however, they were told to wait.

E8 and D8 responded on the second alarm, with E8 as a High Pressure Pumper. E8 and D8 were instructed by NLC to attempt to reach the roof hatch, so that the stairwell could be ventilated, and to coordinate with D19. D8 told D20 he was going up with E8 to check the stairwell for a roof hatch. E8 started up the stairwell, intending to rescue trapped occupants on the 5<sup>th</sup> floor. While going up the stairwell, they passed L19 descending. L19 told E8 where the exit door was and how to get to the 5<sup>th</sup> floor. E8 continued up the stairwell until they reached the 4<sup>th</sup> floor and began a search; however, the captain determined that the crew was on the wrong floor, so he had them return to the stairwell and go to the 5<sup>th</sup> floor. The crew reached the 5<sup>th</sup> floor and opened the stairwell door to find "moderate to heavy fire conditions and very high heat conditions". E8 Captain told his two firefighters to "go back and get the nozzle." The two firefighters went down to the 2<sup>nd</sup> floor, but were unable to find a nozzle stretched there by previous companies. At that time, they heard E8 Captain call a "Mayday."

The two firefighters, both low on air, returned to the 5<sup>th</sup> floor to search for E8 Captain. One firefighter stayed at the stairwell door while the other did a quick search of the floor. Both firefighters were almost completely out of air and returned to the stairwell. They became disoriented and struggled to breathe as they made their way down the stairwell. The firefighters passed another crew in the stairwell and asked them which way was out, whereupon they were told "that way" in the pitch black stairwell. The firefighters told the crew going up the stairwell that they were E8 and that E8 Captain was on the 5<sup>th</sup> floor, but they did not know where. As the firefighters struggled to get down the stairwell to fresh air, they became separated. One firefighter states he called a "Mayday," but was then able to find his partner (who was on all fours) and a way out. After they exited the building, they approached officers and told them that they knew E8 Captain's location. A staff officer took them to the Command Post and told them

to report E8 Captain's location to the Shift Commander and to remain at the Command Post.

D8 separated from E8 on the 5<sup>th</sup> floor and proceeded to the 6<sup>th</sup> floor, but was unable to find the roof hatch in the pitch black smoke conditions. D8 states that, while he was alone, he slipped and fell on his way down the stairwell alone. His face piece and helmet became dislodged. He was unable to reseal his face piece, but was able to continue downstairs. He states he could not find the hose line in the stairwell that he had felt on the way up. When he exited the stairwell, he told D19 that someone needed to stay positioned by the stairwell door, as he believed firefighters could make the wrong turn in the smoke-filled lobby and become lost. An exhausted D8 then reported his findings to Command.

*Second Alarm/Third Alarm (Exterior Operations)*

L34 responded on the second alarm and was ordered to set up their ladder on the south-east corner (Charlie/Delta Division). When the ladder company arrived on location, the captain ordered his crew to change air tanks from 45-minute bottles to 1-hour bottles and to set the aerial ladder up for rescue operations. NLC was informed that L34 was set up, as well as being ready for water for elevated stream application. The ladder was used to knock fire down on the Charlie/Delta Division and eventually to gain access to the roof.

T-18 arrived on location; Level 1 staged and asked NLC if T-18 was needed for aerial operations. NLC told them to "find a location and set-up." The tower located on the Alpha/Delta Division secured E19 as a water source, discussed with WSO the need for an engine to supply water to the tower at its base, and began elevated water stream application on the 5th floor per NLC orders. The stream was directed to Delta Division. When the fire was knocked down there, it was placed on the Alpha/Delta Division side where the stream was applied to both Alpha and Delta Divisions.

L20 responded on the second alarm and was positioned on the Bravo Division, where they were directed to start breaking out windows on the 5<sup>th</sup> and 6<sup>th</sup> floors for horizontal ventilation. After breaking one window, they were ordered to stop. Multiple engine companies were used to supply the ladder companies engaged in heavy stream applications, including E17, E41, E20, and E19. With the help of WSOs, all engines were repositioned to afford maximum water supply. As L20 was effecting the breaking of windows on the Bravo Division and T18 was applying heavy streams to the Alpha/Delta Division, E8 Captain called a "Mayday".

## *Mayday*

E8 Captain states that he saw "flames and dense smoke ... unlike anything I had ever seen" when he and his firefighters reached the 5<sup>th</sup> floor. Thinking they could push the flames back and do a rapid search for victims, he ordered his two firefighters to return down the stairwell and get a nozzle. E8 Captain states that from this point he is not sure what happened; however, he believes that he started to do a search (probably a left hand search to Bravo/Charlie Division) and missed the stairwell exit on the way back. He believes that he went into an office to the right of the stairwell door and became lost. E8 Captain, while looking for a way out, came upon one of the victims and told NLC what he had found and that he needed help. NLC asked for his location and told E8 Captain that R42 was en route to assist him.

Shortly afterward, E8 Captain called for a "Mayday," stating he was in the hallway on the 5<sup>th</sup> floor. NLC orders D19 to commit crews to the stairwell because E8 Captain is in "duress" and needs assistance. Further, NLC tells E8 Captain to come on down [the stairwell]. NLC asks E8 Captain what floor he is on. E8 Captain replies that he is in a room. NLC calls Bravo Division to ask if he has had any luck opening up the building. OEC attempts to contact NLC about the Mayday 3 times and then initiates a 4<sup>th</sup> alarm, per HFD guideline.

Following the 4<sup>th</sup> alarm dispatch, NLC tells all companies that there is a "Mayday" and asks E8 Captain again what floor and stairwell he is. Members from E8 report to the Command Post and tell NLC that they know where E8 Captain is on the 5<sup>th</sup> floor. NLC asks D19 if crews have been committed to the stairwell; D19 answers, "Yes, R42 and E27." NLC tells companies to "hold back on the lines" and asks L20 if they can make entry.

NLC asks D19 if crews are committed to the stairwell; D19 responds that there are crews committed. At some point prior to reaching the 5<sup>th</sup> floor, the RIT crews are forced to return to the lobby due to low air (R42 states that they do not know what floor they were able to get to prior to running low on air). D19 is asked if he needs air bottles; he replies that he needs fire crews.

NLC asks for a progress report, but is told that RIT has not reported. D19 reports to NLC that E8A is not in the stairwell. NLC contacts E8A again to ask for his location. NLC was told E8 Captain tells NLC that he is on the 5<sup>th</sup> floor in a room by a window and that he can see a ladder truck. E8A further tells NLC that he is on the opposite side of the building of "where you (NLC) are." E17, E15, R11, and RC11 are sent to D19 to attempt to reach the 5<sup>th</sup> floor. When RC11 arrives in the lobby, he reports to NLC that there is no active search in the stairwell.



D20, Safety 15, Safety 2, and D31 determine that the fastest way to access the Bravo Division for a search is by breaking the windows on the 5<sup>th</sup> floor. The tip of the fly section of L20 was used to break the tempered glass windows. As the ladder company broke one of the windows, L20 Captain climbed the ladder to look into the office for E8 Captain. L20 Captain saw E8 Captain and assisted him onto the ladder. E8 Captain was lowered to the ground, placed in an ambulance, and transported to Hermann Hospital.

#### *Post Mayday Activities*

RIT crews climbed the stairwells while E8 Captain was being removed from the building. E17 and E15 attempted to stretch one 1 ¾" attack line back up the stairwell. RC11 and R11 continued to the 5<sup>th</sup> floor. Upon reaching the 5<sup>th</sup> floor landing, they searched the area around the door and then proceeded up to the 6<sup>th</sup> floor landing, but found nothing. They returned to the 5<sup>th</sup> floor and blocked the stairwell door open. Looking to the immediate area around the door, they found nothing but the house line previously stretched by L19. They attempted to charge the house line using the standpipe; however, when the valve was opened there was no water in the system. It is believed that the power to the entire building including the fire pump was cut at this time. RC11 secured a search line to the stairwell railing and began a right hand search of the 5<sup>th</sup> floor. It was reported that E8 Captain had been found and removed by L20. The RIT crews were ordered from the building by NLC.

After the RIT crews exited the building, there was a report to NLC that there were victims still remaining in the building. RC11 and a 4-man team asked to return to the building to conduct a search of the 5<sup>th</sup> floor; permission was granted. On the Bravo Division, D20 ordered E39 and E12 to search the 5<sup>th</sup> floor for victims. The two engine companies scaled L20 to the fifth floor, entered a broken window, and began to search. They found one victim in the hallway and another in an office under a desk; both victims were assessed and found to be deceased. A third victim was found by an unknown company, and NLC is updated. RC11 and his team returned up the stairwell and began an organized two-team search; one team to the left, the other to the right. As the teams began searching, a portion of the building collapsed (the roof and sixth floor on the Delta/Bravo Division). RC11 reported the collapse to NLC, and all search teams were ordered from the building.

L19, L20, L34, L44, L45, and T18 were used to extinguish the remaining fire in the building.

### *Secondary Search/ Post containment*

Following the extinguishment of the fire, a secondary search was conducted of all floors. D19, reassigned from Lobby Control to Alpha Division, was placed in charge of the secondary search. He directed crews through the entrance on the Alpha Division and maintained crew accountability and integrity. RC11 states that he and his team did a secondary search of the second through fifth floors. Several engine companies have also stated that they forced office doors open and conducted secondary search on floors D19 assigned to them. No other fatalities were found.

### *Fourth Alarm*

A 4-11 was initiated by OEC per HFD Guidelines following E8 Captain call for a Mayday. Most of these companies were returned to service after E8 Captain was rescued; however, some were used to perform the secondary search.

### **Safety Officers**

Throughout the incident, Safety Officers kept NLC informed of various factors, including smoke conditions, tenability of the structure and building stability, position of various firefighting crews and utilities.

### **EMS Group**

Supervisor 29 added himself to the box alarm when there was a report of trapped occupants. When he arrived, he reported to NLC and asked that all EMS traffic be moved to another channel. NLC agreed and moved all EMS traffic to TAC5. Supervisor 29 established the Medical Division on the Alpha Division, where he, together with Ambulance Supervisor 17, and EMS District Chief 11, directed EMS activities throughout the event, including the triage and transport of all injured civilian and firefighting personnel.

### **Fatalities and Casualties**

Three civilian fatalities were found (two in the Bravo Division, one in the Alpha Division). Three other civilians sustained injuries and were transported to area hospitals, where they were treated and released. Three firefighters were injured and transported to area hospitals.



## **Construction**

The building is a six-story unprotected steel structure. There are pre-cast concrete panels attached to the exterior columns with tempered glass windows in aluminum framing welded to the steel structure between the panels. These 2 units, the panels and windows, form a non-load bearing curtain wall. There are steel truss bar joist attached to beams with corrugated steel deck placed on the bar joists. Lightweight concrete was poured to form 3" floors that are supported by the joist. The interior of the building has aluminum studs covered with drywall. The ceilings are drop down type with acoustical tiles in place. There are no draft stops present in the ceiling space, thereby creating an uninhibited area in which smoke, its poisonous by-products, and fire can spread. Further, in the plenum space above the drop down ceiling, there is flexible air conditioning duct and non-plenum rated wiring, which may have caused additional fire spread. There is no fire resistive material between the pre-cast panels and the lightweight concrete floors to inhibit the travel of fire and its by-products. The enclosed stairwells are not pressurized.

## **Fire Protection (Sprinklers and Standpipes)**

There is a standpipe system and a partial sprinkler system installed in the building. Water supply for the standpipe is by a 750 gpm fire pump, with a water tank of at least 2,500 gallons. There are 4" risers in the 2 stairwells. Hose cabinets containing 100' of 1 1/2" hose are located on the occupancy side of each stairwell.

Of special note, the partial sprinkler system only protects the atrium area of the structure and the common areas of the first floor. The sprinklers heads are 165 degree fusible link type. The water supply for the sprinklers is from the standpipe system. A 4-way Fire Department Connection is located on the Alpha Division of the building. The sprinkler system appears to have operated.

## **Alarm System**

The building has no smoke alarm system. There is an elevator recall system which consists of a smoke detector at each elevator lobby and a control panel on first floor with an audible device.

## **Weather**

At the time of the alarm, the temperature was in the high 70's with winds out of the SSE at 15 mph, with gust over 20 mph. The wind speed and direction possibly led to the rapid spread of smoke and intensification of fire in the early stages of the incident. Further, it hampered the effectiveness of exterior heavy stream applications by breaking stream pattern prior to their being able to hit the fire.

### **Ingress/Egress**

There are double glass doors on the Alpha and Charlie Division that move with the direction of egress and are equipped with panic hardware. There are single swing doors located on the Bravo and Delta Division of the building; they are equipped with panic hardware and move with motion of egress.

### **Benchmarks**

- NLC assumed @ 1716
- Lobby Control
- 2-11 fire @ 1721
- Electronic Accountability @ 1728
- RIT established @ 1728 by E41
- 3-11 fire @ 1742
- 4-11 fire @ 1807 for "Mayday"

### **Quality Assurance**

The Quality Assurance review of this incident involved information gathering by written statements, oral interviews, and OEC recordings involving the following:

- Shift Commander 27
- District Chiefs 8, 45, 20, 19, 31, 26, 34, 6, and 64
- Ambulance District Chief 11
- Safety 15, 2, and 23
- Ambulance Supervisor 29 and 17
- Staff District Chief 13 and 17
- Ladder Companies 44, 45, 19, 20, 34, 56, 18, and 6
- Engines 45, 41, 27, 20, 32, 53, 8, 19, 43, 53, 12, 15, 60, 75, 39, 83, and 17
- Medic 43 and 49
- Ambulance 32
- Water Supply Officers
- Chief Fire Inspector

The Quality Assurance review of Incident Number 0703280557 found the following:

- L45 and L44 performed aerial ladder rescues of 8 civilian occupants during extremely adverse conditions.
- An estimated 120 occupants either self-evacuated or assisted by HFD personnel without injury from the building.
- Prior to arrival on the scene, D45 asked for traffic control at street intersections and on the 610 Loop. This enabled apparatus to approach without interference of civilian vehicles.
- Metro was notified early to have a bus sent for rehab purposes.
- D45 recognized the need for more Medical resources early and called for 3 additional Medic units.
- EMS Group was established with adequate personnel to attend to the needs of civilian and firefighter casualties. It was manned with 6 Ambulances, 5 Medics, 2 Squads, 3 Supervisors, and 1 Medical Director.
- Thermal imagers (TIC) were taken into the smoke-filled atmosphere, per HFD guideline, but were unable to "see" through the dense black smoke. It was not until some horizontal ventilation was accomplished that the TICs became effective.
- Safety Officers kept NLC informed of the structural integrity of the building, *i.e.*, separation of the curtain wall from the columns.
- NLC maintained constant radio communication with lost firefighter during the Mayday situation, repeatedly tried to determine his location in the building. Further, NLC remained calm when he spoke to the lost firefighter and directed units to assist in his search.
- When E8 Captain's TPASS activated, NLC called him until he answered on the radio.
- D19 was proactive in his response to assuming Lobby Control when he saw that the Bravo Division was not endangered.
- D19 remained in the lobby and accounted for all companies that entered and exited the interior stairwell throughout the entire incident to ensure crew safety and accountability.

- E19 and L19 maintained constant communication with their crew members and maintained crew integrity while in the blacked-out stairwell and under extremely hot and smoky conditions.
- Multiple companies risked their safety in attempts to locate E8 Captain during the Mayday alert.
- Multiple companies risked their safety while attempting to access stairwells to rescue trapped victims on upper floors of the building in the early stages of the fire.
- Because access to the upper floors of the building was virtually impossible during the Mayday alert and vertical ventilation had not been accomplished, ladder companies improvised by using a fly section on aerial ladders to quickly begin horizontal ventilation of the 5<sup>th</sup> floor of the building. This action led to the rescue of E8 Captain and an immediate relief of smoke conditions.
- Command utilized heavy stream applications to separate the fire from those civilians being rescued. While this is not the preferred tactic, it was the only option available to Command due to the configuration of the building and the location of its occupants in relation to the fire.
- E8 Captain's TPASS and PASS alert devices operated properly.
- E8 Captain called for "Mayday" after separating from his crew and realizing he could not find his way out.
- Engine Companies established effective water supply with very little assistance from WSOs.

The Quality Assurance review of Incident Number 0703280557 found the following areas of concern:

- Develop an HFD Guideline that addresses low-rise and atrium style buildings.
- No alerting system was installed in the building, except at the elevators. All buildings should have adequate alerting systems, *i.e.*, smoke detectors wired to a central alarm station that notifies all occupants when smoke is present.
- The building was not fully sprinklered. If it had been, the fire may have been limited in its incipient stage.
- Stairwells are not pressurized, this let smoke and its by-products invade the escape routes for occupants and made it difficult for firefighter to access the upper floors to find and rescue remaining occupants.

- Tag lines were not available to all companies. Tag lines should be made available to all companies and training provided for their use.
- The presence of medical supplies, *i.e.*, oxygen, may have accelerated the growth of the fire by supplying 100% oxygen to the blaze.
- The sprinkler/standpipe system was not supplied at any time during the alarm. This would have severely limited the amount of water available for standpipe operations had those hose lines been charged.
- Engine 8 Captain did not maintain crew integrity per HFD guidelines. This changed the complexion of the event causing crews to be redirected and jeopardizing the safety of both the captain and those attempting to find him.
- There was "freelancing" by chief officers. This undermines safety and accountability on the fireground, as well as the Incident Command System.
- E8 Captain's Mayday was not acknowledged by Command; however OEC initiated the next higher alarm (4-11) per HFD Guidelines. It should be noted that once the 4<sup>th</sup> alarm was issued, NLC asked E8 Captain: what floor and stairwell he was at and notified all members that there was a Mayday in progress.
- Command did not report his intentions regarding actions he was taking once on location via radio, *i.e.*, "rescue mode". This led to fireground confusion, as all companies responding should know the direction the event is going. Some companies have stated that they were told, face to face, after reporting directly to the Command Post that the operation was a "rescue operation."
- There was no vertical ventilation to the building, *i.e.*, opening the roof hatch or breaking the skylight over the atrium. Had this been accomplished, smoke conditions within the atrium would have been significantly reduced.
- There were issues with communications on both sides, between Command and responding companies operating at the incident. This reduced the effectiveness of Command's efforts to stabilize the incident and to gather and disseminate information about the fire.
- No Level II Staging area was assigned. This would have enabled Command to draw assets from a central source, with an officer assigned to keep Command informed of available assets.
- Due to the atrium construction of the building and the extremely black and acrid smoke, lobby control and resource pool could not be established.

- Incident Command System was not expanded to meet the needs of the incident.
- Shift Commander 27 did not assume command when the third alarm was initiated, per HFD guidelines. A mentoring program should be initiated for newly promoted Deputy Chiefs.
- Arriving companies did not Level I stage; instead, they either reported directly to the Command Post or failed to report at all. This undermines the purpose of the Command Post ability to track arriving and staged companies and his ability to commit resources.
- No PAR was conducted after the evacuation was ordered.
- There was confusion between Rescue Teams and Alpha Division regarding who was to do the secondary search. This illustrates the need for better communications on the fire grounds.
- A "phantom engine" arrived after the initiation of the 4<sup>th</sup> alarm and remained on location for 8 minutes prior to returning to their designated response area. This compromised fire and first responder response in the engines' immediate response area.
- Companies went in service on the air, responded to the event, and then placed their units out of service. This endangers the civilian population and firefighters from those units' response area do to their absence.
- 911 Call Intake did not determine through phone conversation with the victims their location, other than what floor they were on.
- OEC did not dispatch additional companies to the fire after they upgraded the alarm to a Highrise Box.
- OEC did not notify by group tone that HFD was in Fire Resource Management during this fire.
- There was no TEAP found in the District Chief's binder for the building at the time of the fire. All TEAPs and High Rise Survey should be accessible to the District Chief.