

2.8 9:58:59 A.M. EDT

With no warning that could be discerned in WTC 1, WTC 2 collapsed. The shudder as the more than 250,000 tons of steel, concrete, and furnishings hit the ground was felt well beyond the site. Seismic sensors located 100 miles away recorded the time and intensity of the event.

The gigantic concussion was felt by some of the nearly 800 people still in the stairwells in WTC 1. The evacuation rate slowed to half its prior level as a new cloud of dust, smoke, and debris filled the Concourse and the stairwells, and the lights went out. Higher up, no more calls to 9-1-1 originated from above the 91st floor.

At 10 a.m., NYPD and FDNY ordered all emergency responders out of WTC 1 and away from the WTC site.

2.9 9:59 A.M. TO 10:28 A.M. EDT

For the next half hour, the last 690 of the eventual survivors worked their way down the last flights of stairs, across West Street to the west and across Vesey Street to the north and to safety. By 10:28 a.m., all but 107 of the roughly 7,500 people who had been below the impact floors were able to escape.

Having heard over their radios the orders that they should evacuate, some of the responders inside the tower headed down the stairwells and out of the building, telling their comrades on the way. Others did not, having not received the message, having climbed too high to now get out in time, or continuing on the missions to help others still in the building.

A pressure pulse generated by the collapse of WTC 2 appeared to intensify the fires in WTC 1. Within 4 s of the collapse of WTC 2, flames burst from the south side windows of the 98th floor. The fires on the north faces of the 92nd, 94th, and 96th floors brightened noticeably. Flames near the south end of the east face of the 92nd and 96th floors also flared. The fires on the east and south faces of the 98th floor already extended out the windows. Those in the WTC 1 stairwells felt a gush of wind.

At 10:06 a.m., an NYPD aviation unit advised that WTC 1 would come down and that all emergency vehicles should be moved away from it. At 10:20 a.m., observers in NYPD helicopters said that the top of the building was leaning; and at 10:21 a.m., they said that WTC 1 was buckling on the southwest corner and leaning to the south.

At 10:01 a.m., flames began coming out of the south side of the west face of the 104th floor, three floors higher than any floor where fire had been previously observed and five floors above the highest floor with a major fire. After a rapid growth period, this fire burned intensely up to the time the tower collapsed.

By 10:18 a.m., a substantial pressure pulse inside the building ejected jets of smoke from the 92nd and 94th through 98th floors of the north faces and the 94th and 98th floors of the west face. Fires raged on the south side of the 96th through 99th floors.

The sagging of the floors had increased. Although the floors on the north side of the tower had sagged first, they contracted due to cooling when the fires moved toward the south. Now, the south side floors had sagged to the point where the south perimeter columns bowed inward (Figure 2–12). By 10:23 a.m., the south exterior wall had bowed inward as much as 55 in.