

that people began to break open windows on floors on each of the faces near the top of the tower, particularly on the 104th and 105th floors. Smoke began to flow immediately from many of these open windows.

Other observations summarized in the report are consistent with the observed fire behaviors during the period. A number of streamers were observed falling from façade areas where fires had recently appeared. The aluminum cladding next to windows where fires were present was marked by smoke in a manner which reflected the local fire intensity. In particular, distinct carets were present on the columns next to windows where flames extended from the openings.

Response of WTC 1 to the Impact of United Airlines Flight 175 on WTC 2

United Airlines Flight 175 struck WTC 2 at 9:02:59 a.m. The impact and subsequent fireballs briefly affected the fire behavior in WTC 1. The first effect was the sudden appearance of smoke and in a few cases fire from a number of open windows, indicating a weak pressure pulse had passed through the tower. A portion of the fireballs that formed on WTC 2 was adjacent to the east face of WTC 1. As the fireballs initially expanded they pushed smoke away from the east face of WTC 1 and revealed areas that had been hidden by smoke. As the fireballs grew larger, they entrained sufficient air that large amounts of smoke and air were drawn from open windows on the east face of WTC 1, while smoke flow was markedly decreased on the other faces. The disrupted smoke flow lasted for just over 10 s.

WTC 1 from 9:03 a.m. to 9:18 a.m.

Compared to the rapid fire spread observed on the north face periphery during the first time period, little additional fire spread occurred on this face during the following fifteen minutes. The intense fires that had grown on the 96th and 97th floors earlier retreated into the building and began to die down. Around 9:15 a.m. a fire appeared in windows on the west side of the aircraft impact cavity on the 94th floor. This was the first evidence of a fire in this area of the floor.

In contrast to the north face, the fires burning on the periphery of the east side of the tower continued to develop and spread during this time, initiating new areas of intense burning at the same time that areas ignited somewhat earlier were dying down. By 9:07 a.m. an extensive length of flame had appeared on the 92nd floor extending over roughly 20 percent of the width of the face to the north of the face center. Moderate fire growth had also occurred near the center of the 93rd floor, while an isolated fire was visible at the center of the 95th floor. An intense fire (with flames extended from windows) developed over a length running from just outside the wall of the room in the northeast corner to well past the center of the face on the 96th floor. On the 94th and 97th floors, the fires at windows that had been burning intensely during the earlier period were dying down, while new areas of fire had spread to the south.

During the initial part of this time period, the fires on the western half of the 96th floor on the south face continued to burn intensely. At this time, flames were not visible on other floors. By the end of the period the appearance of the south face had changed dramatically. While the fires on the 96th floor had begun to die down and recede back into the tower, extensive areas of flame became apparent on both the 95th and 97th floors. The fire on the 95th floor was visible over roughly 10 percent of the width of the face at a location on the east side of the western half of the floor. On the 97th floor a fire developed that covered most of the western half of the floor.