

Table 3–2. Location of occupants of WTC 2.

Time	Escaped	Lobby to 76 th Floor	77 th to 110 th Floor
8:46	0	5,700	2,900
9:03	3,200	4,800	637
9:36	6,950	1,050	619
9:59	8,000	11	619

Note: The numbers in the rows do not add to the estimated total of 8,600 occupants due to rounding in the less certain values.

This aircraft had also severed the pipes that fed the automatic sprinklers and destroyed all elevator service to the impact floors. But, unlike AA Flight 11, the off-center strike of UA Flight 175 had left one of the three stairways passable, Stairway A on the north side of the building core.

When the aircraft struck WTC 2, emergency responders had already been dispatched to the WTC site, and the initial surge of emergency responder radio had subsided to a level approximately three times that of normal operations. However, the radio traffic volume was still at a level where approximately one-third to one-half of the radio communications was not understandable.

Stairwell A remained passable because it was well west of the aircraft strike center and partially protected by elevator machinery and the long dimension of the building core.

3.4 THE JET FUEL

Within about one half of a second, dust and debris flew out of windows on the east and north faces. Several small fireballs of atomized jet fuel burst from windows on the east face of the 81st and 82nd floors, coalescing into a single, large fireball that spanned the entire face. A tenth of a second later, fire appeared in the dust clouds ejected from the south face of the 79th, 81st, and 82nd floors. Almost simultaneously, three fireballs came from the east side of the north face. The largest came from the 80th through 82nd floors. A second, somewhat smaller one came from the same floors on the northeast corner of the building. The smallest emerged from the 79th floor. No dust or fireballs came from the west face.

As in WTC 1, less than 15 percent of the jet fuel burned in the spray cloud inside the building. Roughly 10 percent to 25 percent was consumed in the fireballs outside the building. Thus, well over half of the jet fuel remained after the initial fireballs.

The rapid burning of the jet fuel inside the building created an overpressure that was estimated at 2 psi to 3 psi for 0.5 s to 2 s. For a window and frame of over 10 ft², this amounts to over 3,000 pounds of force, more than enough to break windows. Photographs of the north and east faces appeared to show hanging floor slabs where the fireballs had been ejected from the building. Based on the failure of the truss-seat connections, NIST estimated that the static capacity of an undamaged floor was 4.8 psi against uplift pressure and 4.4 psi against downward pressure over the entire floor. It is not unreasonable that a combination of physical damage from the impact and overpressure from the fireballs caused the partial collapse of these floor slabs.

3.5 9:03 A.M. TO 9:36 A.M. EDT

The fireballs burned for 10 s, extending almost 200 ft out from the north, east, and south faces. Having consumed the aerosol fuel, the flames then receded.