

WTC 1 by emergency responders. About 20 of these were making their way down the stairs shortly before the building collapsed. It is not known how many from this group survived.

- Due to the presence of assembly use spaces at the top of each tower that were designed to accommodate over 1,000 occupants per floor for the Windows on the World restaurant complex and the Top of the World observation deck, the NYC Building Code would have required a minimum of four independent means of egress (stairs), one more than the three that were available in the buildings. Given the low occupancy level on September 11, 2001, NIST found that the issue of egress capacity from these places of assembly, or from elsewhere in the buildings, was not a significant factor on that day. It is conceivable that such a fourth stairwell, depending on its location and the effects of aircraft impact on its functional integrity, could have remained passable, allowing evacuation by an unknown number of additional occupants from above the floors of impact. Moreover, if the buildings had been filled to their capacity with 20,000 occupants, the required fourth stairway would likely have mitigated the insufficient egress capacity for conducting a full building evacuation within the available time.

8.4.3 Emergency Response

- New York City's emergency responders had never experienced an operation of the size presented by the attack on the WTC. They typically followed their department policies and procedures for the operations they were required to carry out. Under these procedures, almost all emergency responder departments established their command posts within the potential collapse zone of the buildings.
- In general, all departments attempted to work together to save as many lives as possible. This was done with no formal structure of unified command between departments below the Commissioner level of operations.
- Unified operations were hindered by the FDNY and NYPD command posts being separated. Department Chiefs could not directly communicate with each other using their handie-talkies and did not formulate unified orders and directions for their departments. Neither FDNY nor NYPD had liaison officers working with the other department's command posts until after WTC 1 collapsed.
- The first emergency responders were colleagues and regular building occupants. Acts of individual heroism saved many people whom traditional emergency responders would have been unable to reach in time.
- The initial fire department assessment of the situation was correct regarding the general magnitude of damage, the status of the water supply, and the further limitations imposed on firefighting by the height of the impact. FDNY command personnel learned from 9-1-1 dispatch operators that smoke, fire, and structural damage in the buildings prevented many building occupants from evacuating floors above the impact zones. The decision was quickly made that fire department efforts should be directed toward evacuation and rescue of building occupants and should not focus on firefighting.