

- 43 of 47 core columns stripped of insulation on one or more floors.
- Insulation stripped from trusses covering 60,000 ft² of floor area.

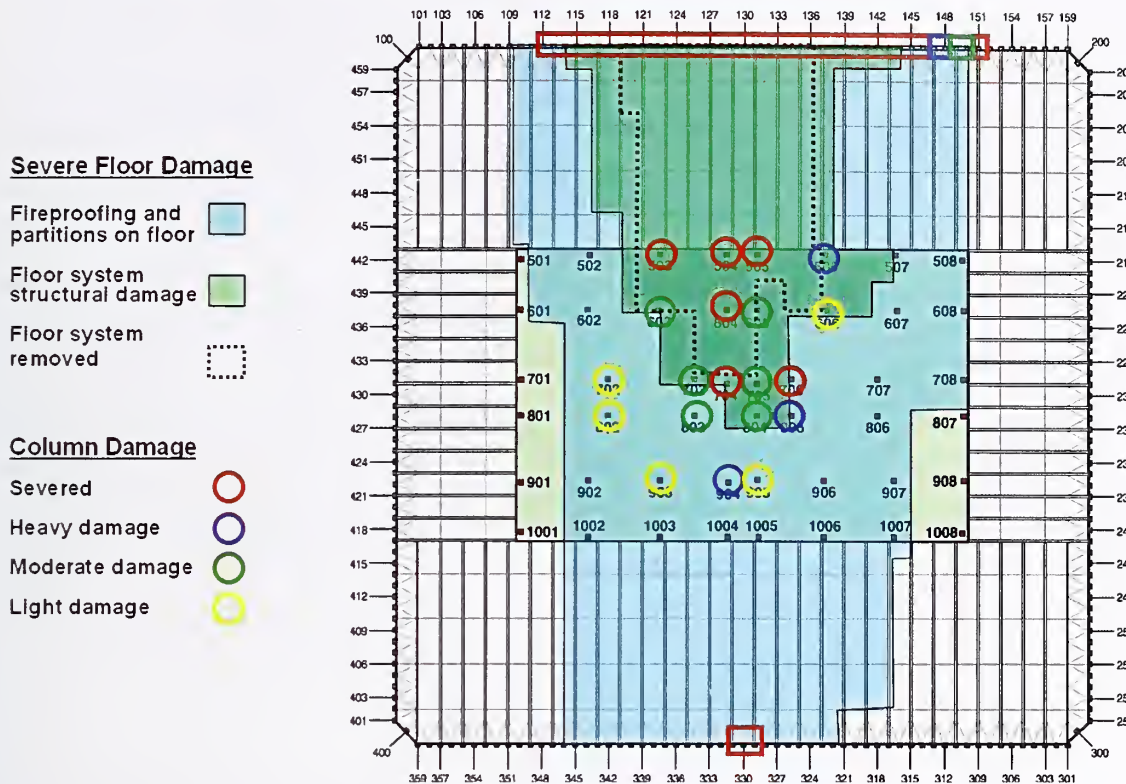


Figure 2-4. Simulation of cumulative aircraft impact damage to floors 93 through 98 in WTC 1.

Even with all this damage, the building still stood. The acceleration from the impact had been so severe that people even on lower floors were knocked down and furniture was thrown about. Some survivors reported fallen ceiling tiles throughout the building, all the way down to the Concourse Level. The pipes that fed the automatic fire sprinkler system were severed. At least 166 windows were broken. Damage to interior walls was reported from the Lobby to the 92nd floors. However, the building was designed with reserve capacity: it could support significantly more load than the weight of the structure and its people and contents. The building redistributed the load from the severed perimeter columns, mainly to their neighboring columns. The undamaged core columns assumed the remaining load, as well as the load from their damaged neighbors. WTC 1 still stood, and would have continued to do so, if not for the fires that followed.

NIST could not determine how many occupants were in the path of the aircraft as it entered the tower. Those in the direct collision path were almost certainly killed instantly. Many more would have lost their lives from the burst of heat from the burning jet fuel. Fatal injuries were reported on floors as low as the Concourse Level, where a fireball swept through the lobby.