

windows on the 82nd floor moved again, with the northernmost window where it first became visible shifting slightly to the north. A prominent feature on the east face during the period was the inward bowing of the outer wall. This can be seen clearly over the 79th to 82nd floors in Figure 2–11, which was taken less than a minute before the collapse started. During the 20 s prior to the collapse a large number of pieces of debris fell from the northern sides of the 80th and 81st floors. The falling debris coincided with a heavy flow of molten metal from the north face. When WTC 2 collapsed very little flame was expelled from the east-face windows. Based on observations elsewhere on the two towers, regions of intense burning would have been expected to generate short-lived jets of flames. Their absence suggests that large fires were not burning near the face at the time of collapse.

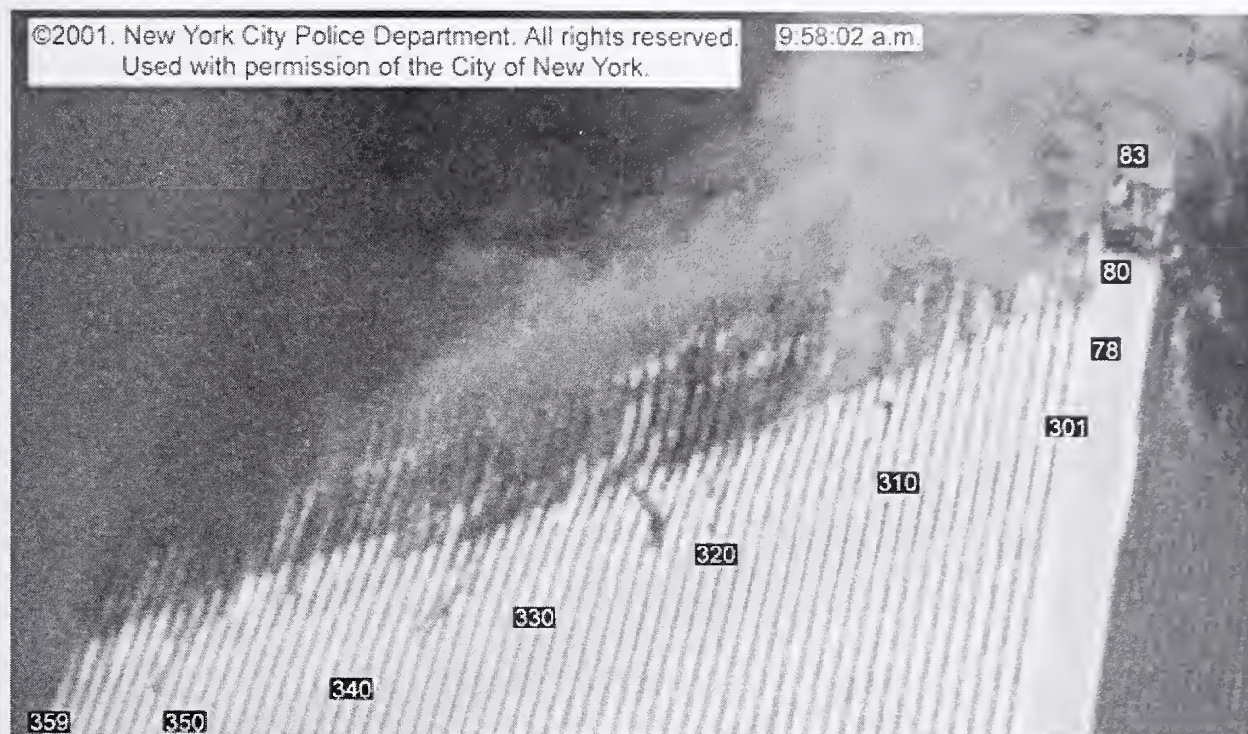


Figure 2–11. Cropped photograph of the east face of WTC 2 at 9:58:02 a.m. The intensity levels have been adjusted, and column and floor numbers have been added.

At the beginning of the period a number of small fires were visible on several floors of the south face at locations surrounding the aircraft impact cavity. Their positions suggest these were continuations of the slow spreading fires that had grown around the cavity shortly after impact. The fire that had grown earlier between the cavity and the east edge of the 82nd floor continued to burn gently. Around 9:48 a.m. a brief flash of flame was observed from a window to the west of the impact cavity on the 80th floor, and just before 9:53 a.m. a substantial amount of smoke was released from windows still further to the west. Shortly afterward flames were observed spreading across the floor at this location from east to west. By the time of collapse an intense fire was burning near the center of the western half of the 80th floor and extended over roughly one-fifth of the floor width. As WTC 2 began to collapse, the only significant flames pushed out of open windows on the south face came from this fire area.

Views of the west face during the period showed smoke flowing from open windows on the 84th, 86th, 88th, 91st, 105th, and 107th floors and from the southern edge of the mechanical equipment room on the