



Figure 5–108. Frame taken from a video clip filmed near the corner of West Broadway and Barclay Street showing flames burning on a number of vehicles.

The time could not be accurately determined. The intensity levels have been adjusted.

The number and wide distribution of vehicle and building fires ignited following the collapses of WTC 1 and WTC 2 confirm that substantial numbers of burning sources capable of igniting fires reached the ground and were widely distributed by the dust- and debris-laden air flows. Since fires were observed on the ground surrounding WTC 7, it is possible that potential ignition sources entered WTC 7 through openings created in the south and west faces of the building during the collapses of the towers. NIST found no evidence to confirm this possibility, but the available data suggest that this was highly likely.

5.6.3 Visual Observations of Fire Growth and Spread in WTC 7

General Comments

General characteristics of the imagery available for characterizing the fires that developed in WTC 7 following the collapse of WTC 1 were discussed in Section 5.4, along with the procedures for recording observations. It was noted that the available imagery was limited to such an extent that it was difficult to develop detailed timelines for burning on the four faces of the building.

In the following sections, the available imagery is reviewed and used to deduce as much as possible about the ignition, growth, and spread of the fires in WTC 7 prior to its collapse at 5:20:52 p.m. Detailed maps of the fires derived from these images are collected in Section 5.6.4.

Fires above the 14th Floor

Prior to 12:10 p.m., there was no evidence of fire on the upper floors of WTC 7. Between 12:10 p.m. and 2:10 p.m., the only fires directly or indirectly observed were on Floors 19, 22, 29, and 30.

The earliest visual evidence showing flames in WTC 7 is a video clip of the southwest corner that was recorded between 12:10 a.m. and 12:25 p.m. Figure 5–109 is a frame from this video. Flames are visible in open windows 22-14A and 22-15A. Some smoke is visible flowing from both of these windows, with the heaviest flow on the south face. Windows to the north of window 22-14A were intact at that time. In