

OEM interview 3 (Mar. 16, 2004). The Watch Command's monitoring of EMS data proved instrumental in an extremely early identification and then highly effective containment of the 1999 West Nile outbreak, which likely would have resulted in many more fatalities but for OEM. Richard Sheirer interview (Apr. 7, 2004).

28. Richard Sheirer testimony (May 18, 2004); OEM interview 3 (Mar. 16, 2004).

29. New York City memo, "Direction and Control of Emergencies in the City of New York," July 2001 (signed by Mayor Giuliani).

30. For the exact time of impact, see FAA analysis of American 11 radar returns and Commission analysis of FAA radar data and air traffic control software logic. For the zone of impact, see National Institute of Standards and Technology (NIST) report, "Interim Report on the Federal Building Fire Safety Investigation of the World Trade Center," June 28, 2004. On people alive on the 92nd floor and above after the impact, see Commission analysis of conditions on tower floors and advice received by civilians in the towers based on (1) calls to NYPD 911 from or concerning people in the towers on September 11, 2001, and (2) transcripts of recorded calls to the Port Authority police desk from people in the towers on September 11, 2001 (hereafter "Commission analysis of 911/PAPD calls"). Everyone alive on the 91st floor was able to evacuate. Civilian interview 7 (Mar. 22, 2004); Civilian interview 6 (Mar. 22, 2004). For civilians being alive but trapped, see Commission analysis of 911/PAPD calls; Civilian interview 17 (May 11, 2004); Civilian interview 2 (Mar. 19, 2004).

31. For fire in the 77th floor elevator and damage to the 22nd floor, see Commission analysis of 911/PAPD calls; Port Authority transcripts of recorded Port Authority calls and radio channels, Sept. 11, 2001, vol. II, channel 8, p. 4 (22nd floor). For a fireball in the lobby, see PAPD interview 1, WTC Command (Oct. 14, 2003); Civilian interview 14 (Apr. 7, 2004). Burning jet fuel descended at least one elevator bank. FDNY interview 4, Chief (Jan. 8, 2004). For the roofs being engulfed and the winds, see, e.g., NYPD interview 16, Aviation (Apr. 1, 2004).

32. Commission analysis of 911/PAPD calls.

33. *Ibid.*

34. For the on-duty fire safety director's perspective, see WTC interview 6 (May 25, 2004). For the chiefs being told by the Port Authority fire safety director that the evacuation order was given earlier, see PANYNJ interview 13 (Nov. 20, 2003). For him no longer being the designated fire safety director, see PANYNJ interview 11 (June 23, 2004).

35. For public announcements not being heard, see, e.g., Civilian interview 6 (Mar. 22, 2004); Civilian interview 7 (Mar. 22, 2004); Civilian interview 9 (Mar. 23, 2004); Civilian interview 14 (Apr. 7, 2004); Commission analysis of 911/PAPD calls. The evacuation tone was heard in some locations below the impact. Civilian interview 7 (Mar. 22, 2004); Commission analysis of 911/PAPD calls. For some emergency intercoms being unusable, see WTC interview 9 (June 8, 2004); Port Authority transcripts of recorded Port Authority calls and radio channels, Sept. 11, 2001. For evidence that some were usable, see WTC interview 6 (May 25, 2004).

36. For callers being disconnected, see Commission analysis of 911/PAPD calls. For the standard operating procedure and only a few people being available, causing calls to be transferred, see FDNY interview 28, Dispatch (Jan. 29, 2004). For delays and terminations, see Commission analysis of 911/PAPD calls.

37. For operators' and dispatchers' situational awareness and instructions to callers, see Commission analysis of 911/PAPD calls. For standard operating procedures for a high-rise fire, see FDNY interview 28, Dispatch (Jan. 29, 2004). For the fire chiefs' view, see FDNY interview 61, Chief (May 12, 2004); FDNY interview 62, Chief (May 12, 2004). For many injuries occurring during the evacuation, see Zachary Goldfarb and Steven Kuhr, "EMS Response to the Explosion," in Manning, ed., *The World Trade Center Bombing*, p. 94.

38. FDNY interview 15, Chief (Jan. 14, 2004); FDNY interview 4, Chief (Jan. 8, 2004).

39. For operators' and dispatchers' lack of knowledge, see Commission analysis of 911/PAPD calls. For operators departing from protocol, see *ibid.*

40. Commission analysis of 911/PAPD calls; Port Authority transcripts of recorded Port Authority calls and radio channels, Sept. 11, 2001, vol. II, channel 9, pp. 1–2, 23–24; channel 10, pp. 2, 6, 23.

41. See Civilian interview 6 (Mar. 22, 2004); Civilian interview 7 (Mar. 22, 2004); Civilian interview 14 (Apr. 7, 2004); Civilian interview 9 (Mar. 23, 2004). For Port Authority employees remaining, see Civilian interview 6 (Mar. 22, 2004); Civilian interview 7 (Mar. 22, 2004), Port Authority report, *September 11 Special Awards Ceremony*, vol. 1, undated (recognitions 2, 3, 4, and 5).

42. For trouble reaching exits, see, e.g., Civilian interview 9 (Mar. 23, 2004). For "locked" doors, see, e.g., Civilian interview 6 (Mar. 22, 2004); Civilian interview 14 (Apr. 7, 2004); WTC interview 9 (June 8, 2004); Civilian interview 7 (Mar. 22, 2004).

43. For smoke rising and its effect, see Commission analysis of 911/PAPD calls. For people jumping, see Civilian interview 13 (Mar. 25, 2004); Commission analysis of 911/PAPD calls; Port Authority transcripts of recorded Port Authority calls and radio channels, vol. II, WTC channel 26 (channel W), Sept. 11, 2001, pp. 4–6.

44. There is no evidence of a dispute between Morgan Stanley and the Port Authority over the Port Authority's "defend in place" evacuation policy before September 11. For occupants who were unaware of what happened, see, e.g., Civilian interview 1 (Mar. 2, 2004). For civilians concluding that the incident had occurred in the other building, see Civilian interview 13 (Mar. 25, 2004); Civilian interview 1 (Mar. 2, 2004). For others being aware that