

117. For the distance between Otis Air Force Base and New York City, see William Scott testimony, May 23, 2003. For the order from NEADS to Otis to place F-15s at battle stations, see NEADS audio file, Weapons Director Technician position, channel 14, 8:37:15. See also interviews with Otis and NEADS personnel: Jeremy Powell interview (Oct. 27, 2003); Michael Kelly interview (Oct. 14, 2003); Donald Quenneville interview (Jan. 7, 2004), and interviews with Otis fighter pilots: Daniel Nash interview (Oct. 14, 2003); Timothy Duffy interview (Jan. 7, 2004). According to Joseph Cooper from Boston Center, "I coordinated with Huntress ["Huntress" is the call sign for NEADS]. I advised Huntress we had a hijacked aircraft. I requested some assistance. Huntress requested and I supplied pertinent information. I was advised aircraft might be sent from Otis." FAA record, Personnel Statement of Joseph Cooper, Oct. 30, 2001.

118. Robert Marr interview (Jan. 23, 2004); Leslie Filson, *Air War Over America* (First Air Force, 2003), p. 56; Larry Arnold interview (Feb. 3, 2004).

119. NEADS audio file, Weapons Director Technician position, channel 14; 8:45:54; Daniel Nash interview (Oct. 14, 2003); Michael Kelly interview (Oct. 14, 2003); Donald Quenneville interview (Jan. 7, 2004); Timothy Duffy interview (Jan. 7, 2004); NEADS audio file, Mission Crew Commander position, channel 2, 8:44:58; NEADS audio file, Identification Technician position, channel 5, 8:51:13.

120. FAA audio file, Boston Center, position 31R; NEADS audio file, Mission Crew Commander position, channel 2, 8:58:00; NEADS audio file, Mission Crew Commander position, channel 2, 8:54:55. Because of a technical issue, there are no NEADS recordings available of the NEADS senior weapons director and weapons director technician position responsible for controlling the Otis scramble. We found a single communication from the weapons director or his technician on the Guard frequency at approximately 9:11, cautioning the Otis fighters: "remain at current position [holding pattern] until FAA requests assistance." See NEADS audio file, channel 24. That corresponds to the time after the Otis fighters entered the holding pattern and before they headed for New York. NEADS controllers were simultaneously working with a tanker to relocate close to the Otis fighters. At 9:10, the senior director on the NEADS floor told the weapons director, "I want those fighters closer in." NEADS audio file, Identification Technician position, channel 5. At 9:10:22, the Otis fighters were told by Boston Center that the second tower had been struck. At 9:12:54, the Otis fighters told their Boston Center controller that they needed to establish a combat air patrol over New York, and they immediately headed for New York City. See FAA audio files, Boston Center, position 31R. This series of communications explains why the Otis fighters briefly entered and then soon departed the holding pattern, as the radar reconstruction of their flight shows. DOD radar files, 84th Radar Evaluation Squadron, "9/11 Autoplay," undated.

121. In response to allegations that NORAD responded more quickly to the October 25, 1999, plane crash that killed Payne Stewart than it did to the hijacking of American 11, we compared NORAD's response time for each incident. The last normal transmission from the Stewart flight was at 9:27:10 A.M. Eastern Daylight Time. The Southeast Air Defense Sector was notified of the event at 9:55, 28 minutes later. In the case of American 11, the last normal communication from the plane was at 8:13 A.M. EDT. NEADS was notified at 8:38, 25 minutes later. We have concluded there is no significant difference in NORAD's reaction to the two incidents. See NTSB memo, Aircraft Accident Brief for Payne Stewart incident, Oct. 25, 1999; FAA email, Gahrts to Myers, "ZJX Timeline for N47BA accident," Feb. 17, 2004.

122. FAA memo, "Full Transcript; Aircraft Accident; UAL175; New York, NY; September 11, 2001," May 8, 2002, pp. 5–6.

123. FAA audio file, New York Center, position R42, 8:42–8:45; FAA memo, "Full Transcript; Aircraft Accident; UAL175; New York, NY; September 11, 2001," May 8, 2002, pp. 6–8; DOD radar files, 84th Radar Evaluation Squadron, "9/11 Autoplay," undated. The FAA-produced timeline notes, "Based on coordination received from [Boston Center] indicating a possible hijack, most of the controller's attention is focused on AAL 11." See FAA report, "Summary of Air Traffic Hijack Events September 11, 2001," Sept. 17, 2001; see also David Bottiglia interview (Oct. 1, 2003); FAA memo, "Full Transcript; Aircraft Accident; UAL175; New York, NY; September 11, 2001," May 8, 2002, p. 9.

124. FAA audio file, Herndon Command Center, New York Center position, line 5114, 8:48.

125. FAA memo, "Full Transcript; Aircraft Accident; UAL175; New York, NY; September 11, 2001," May 8, 2002, pp. 12, 14.

126. *Ibid.*, p. 15. At 8:57, the following exchange between controllers occurred: "I got some handoffs for you. We got some incidents going over here. Is Delta 2433 going to be okay at thirty-three? I had to climb him for traffic. I let you United 175 just took off out of think we might have a hijack over here. Two of them." See FAA memo, "Full Transcript; Aircraft Accident; UAL175; New York, NY; September 11, 2001," May 8, 2002.

127. See FAA report, "Summary of Air Traffic Hijack Events September 11, 2001," Sept. 17, 2001; Evanna Dowis interview (Sept. 30, 2004); Michael McCormick interview (Dec. 15, 2003); FAA record, Personnel Statement of Michael McCormick, Oct. 17, 2001. See also FAA memo, "Full Transcript; Aircraft Accident; UAL175; New York, NY; September 11, 2001," May 8, 2002, p. 17.

128. FAA memo, "Full Transcript; Command Center; NOM Operational Position; September 11, 2001," Oct. 14, 2003, pp. 15–17.