



Improvising a Homeland Defense

Staff Statement No. 17

Members of the Commission, with your help, your staff is prepared to present its findings regarding national defense and crisis management on 9/11. Our findings represent the result of our work to date. We remain ready to revise our understanding in light of new information.

This statement represents the collective effort of a number of members of the staff. John Farmer, Miles Kara, Dana Hyde, John Azzarello, Kevin Shaeffer, Steve Dunne, Geoffrey Brown, Lisa Sullivan, and Cate Taylor did most of the investigative work reflected in this report. In addition, Charles Pereira of the National Transportation Safety Board assisted greatly in the reconstruction and interpretation of flight data. We are grateful to the NTSB for its assistance and cooperation. We would also like to acknowledge the assistance of the Environmental Systems Research Institute (ESRI) in preparing the visual components of this presentation.

In the course of this investigation, we have received documents and other information from the Executive Office of the President, and the Departments of Defense, Transportation, and Homeland Security.

Unless otherwise noted, all times given are rounded to the nearest minute. None of the audio excerpts you will hear this morning are derived from cockpit voice recorders.

The FAA and NORAD

On 9/11 the defense of U.S. air space depended on close interaction between two federal agencies: the FAA and the North American Aerospace Defense Command (NORAD). The last hijacking that involved U.S. air traffic controllers, FAA management, and military coordination, had occurred in 1993. In order to understand how the two agencies interacted eight years later, we will review their missions, command-and-control structures, and working relationship on the morning of 9/11.

FAA Mission and Structure

As of September 11, 2001, the FAA was mandated by law to regulate the safety and security of civil aviation. From an air traffic controller's perspective, that meant

maintaining a safe distance between airborne aircraft.

Many controllers work at the FAA's 22 Air Route Traffic Control Centers. These Centers are grouped under regional offices and coordinate closely with the national Air Traffic Control System Command Center, commonly referred to as the "Command Center," which oversees daily traffic flow within the entire airspace system. That Command Center is located in Herndon, Virginia. Regional offices report to FAA headquarters in Washington, DC. FAA headquarters is ultimately responsible for the management of the National Airspace System. An Operations Center located at FAA headquarters receives notifications of incidents, including accidents and hijackings.

FAA Centers often receive information and make operational decisions independent of one another. On 9/11, the four hijacked aircraft were monitored mainly by four of these FAA Air Route Traffic Control Centers, based in Boston, New York, Cleveland, and Indianapolis. Each Center thus had part of the knowledge of what was going on across the system. But it is important to remember that what Boston Center knew was not necessarily known by the Centers in New York, Cleveland, or Indianapolis.

Controllers track airliners like the four aircraft hijacked on 9/11 primarily by watching the data from a signal emitted by the aircraft's transponder equipment. The four aircraft hijacked on 9/11, like all aircraft traveling above 10,000 feet, were required to emit a unique transponder signal while in flight.

On 9/11, the terrorists turned off the transponders on three of the four hijacked aircraft. With the transponder turned off, it may be possible, although more difficult, to track an aircraft by its primary radar returns. A primary radar return occurs when the signal sent from a radar site bounces off an object in the sky and indicates the presence of that object. But primary radar returns do not include the transponder data, which show the aircraft's identity and altitude. Controllers at Centers rely on transponder signals and usually do not display primary radar returns on their scopes. But they can change the configuration of their radar scopes so they can see primary radar returns. In fact, the controllers did just that on 9/11 when the transponders were turned off in three of the four hijacked aircraft. Tower or terminal approach controllers handle a wider variety of lower-flying aircraft; they often use primary radar returns as well as transponder signals.

NORAD Mission and Structure

NORAD was, and is, responsible for the air defense of the continental United States. The threat of Soviet bombers diminished significantly after the end of the Cold War, and the number of NORAD alert sites was reduced. On 9/11 there were only seven left in the United States, each with two fighter aircraft on alert.

All the hijacked aircraft were in one of NORAD's Continental U.S. sectors, the Northeast Air Defense Sector (also known as NEADS). NEADS is based in Rome, New York. On 9/11, it could call on two alert sites, each with one pair of ready fighters. These were the

Otis Air National Guard Base in Cape Cod, Massachusetts and Langley Air Force Base in Langley, Virginia.

NEADS reported to the Continental Region headquarters in Florida, which reported to NORAD headquarters, in Colorado Springs, Colorado.

Most FAA centers had a civilian employee to coordinate with NORAD, for situations like training exercises. The agencies had also developed protocols for working together in the event of a hijacking. As they existed on 9/11, the protocols for the FAA to obtain military assistance from NORAD required multiple levels of notification and approval at the highest levels of government.

FAA guidance to controllers on hijack procedures assumed that the aircraft pilot would notify the controller of the hijack via radio communication or by “squawking” a transponder code of “7500”—the universal code for a hijack in progress. Controllers would notify their supervisors, who in turn would inform management all the way up to FAA headquarters in Washington. Headquarters had a “hijack coordinator” who was the Director or his designate of the FAA Office of Civil Aviation Security.

If a hijack was confirmed, procedures called for the hijack coordinator on duty to contact the Pentagon’s National Military Command Center (NMCC) and to ask for a military “escort aircraft” to follow the flight, report anything unusual, and aid search and rescue in the event of an emergency. The NMCC would then seek approval from the Office of the Secretary of Defense to provide military assistance. If there was approval, the orders would be transmitted down NORAD’s chain of command and direct the sector to launch a fighter escort.

The protocols did not contemplate an intercept. They assumed the fighter escort would be discreet, “vectored to a position five miles directly behind the hijacked aircraft,” where it could perform its mission to monitor the flight path of the aircraft.

In sum, the protocols in place on 9/11 for the FAA and NORAD to respond to a hijacking presumed that:

- (1) the hijacked aircraft would be readily identifiable and would not attempt to disappear;
- (2) there would be time to address the problem through the appropriate FAA and NORAD chains of command; and
- (3) the hijacking would take the traditional form, not a suicide hijacking designed to convert the aircraft into a guided missile.

On the morning of 9/11, the existing protocol was unsuited in every respect for what was about to happen. What ensued was the hurried attempt to create an improvised defense

by officials who had never encountered or trained against the situation they faced.

Staff Statement No. 4 offered an initial summary of what took place on the four flights. What we will do now is review how people on the ground comprehended what was happening to each flight. So, for each flight, we will first describe what the FAA understood, and then how the military was notified and responded.

American Airlines Flight 11

FAA Awareness

At 8:00 on September 11, 2001, American Airlines Flight 11 began its takeoff roll at Logan Airport in Boston. A Boeing 767, Flight 11 was bound for Los Angeles with 81 passengers, 11 crew, and 24,000 gallons of jet fuel. By 8:09, it was being monitored by FAA's Boston Center (located in New Hampshire). At 8:13, the controller instructed the flight to "turn twenty degrees right," which the flight acknowledged. This was the last transmission to which the flight responded.

Sixteen seconds later, the controller instructed the flight to climb to 35,000 feet. When there was no response, the controller repeated the command seconds later, and then tried repeatedly to raise the flight. He used the emergency frequency to try to reach the pilot. Though there was no response, he kept trying to contact the aircraft.

At 8:21, American 11 turned off its transponder, immediately degrading the available information about the aircraft. The controller told his supervisor that he thought something was seriously wrong with the plane. At this point, neither the controller nor his supervisor suspected a hijacking. The supervisor instructed the controller to follow standard operating procedures for handling a "no radio" aircraft.

The controller checked to see if American Airlines could establish communication with American 11. He became even more concerned as its route changed, moving into another sector's airspace. Controllers immediately began to move aircraft out of its path, and searched from aircraft to aircraft in an effort to have another pilot contact American 11.

At 8:24:38, the following transmission came from American 11:

***American 11:** We have some planes. Just stay quiet, and you'll be O.K. We are returning to the airport.*

The controller only heard something unintelligible; he did not hear the specific words "[w]e have some planes." Then the next transmission came seconds later:

***American 11:** Nobody move. Everything will be O.K. If you try to make any moves, you'll endanger yourself and the airplane. Just stay quiet.*

Hearing that, the controller told us he then knew it was a hijacking. The controller alerted his supervisor, who assigned another controller to assist him, and redoubled efforts to ascertain the flight's altitude. Because the controller didn't understand the initial transmission, the Manager of Boston Center instructed the Center's Quality Assurance Specialist to "pull the tape" of the radio transmission, listen to it closely, and report back.

Between 8:25 and 8:32, in accordance with the FAA protocol, Boston Center managers started notifying their chain of command that American 11 had been hijacked. At 8:28, Boston Center called the Command Center in Herndon, Virginia to advise management that it believed American 11 had been hijacked and was heading toward New York Center's airspace. By this point in time, American 11 had taken a dramatic turn to the south. At 8:32, the Command Center passed word of a possible hijacking to the Operations Center at FAA headquarters. The duty officer replied that security personnel at headquarters had just begun discussing the hijack situation on a conference call with the New England Regional office.

The Herndon Command Center immediately established a teleconference between Boston, New York, and Cleveland Centers so that Boston Center could help the others understand what was happening.

At 8:34, the Boston Center controller received a third transmission from American 11:

***American 11:** Nobody move please. We are going back to the airport. Don't try to make any stupid moves.*

In the succeeding minutes, controllers were attempting to ascertain the altitude of the southbound Flight 11.

Military Notification and Response

Boston Center did not follow the routine protocol in seeking military assistance through the prescribed chain of command. In addition to making notifications within the FAA, Boston Center took the initiative, at 8:34, to contact the military through the FAA's Cape Cod facility. They also tried to obtain assistance from a former alert site in Atlantic City, unaware it had been phased out. At 8:37:52, Boston Center reached NEADS. This was the first notification received by the military—at any level—that American 11 had been hijacked:

***FAA:** Hi. Boston Center TMU, we have a problem here. We have a hijacked aircraft headed towards New York, and we need you guys to, we need someone to scramble some F-16s or something up there, help us out.*

***NEADS:** Is this real-world or exercise?*

FAA: No, this is not an exercise, not a test.

NEADS promptly ordered to battle stations the two F-15 alert aircraft at Otis Air Force Base, about 153 miles away from New York City. The air defense of America began with this call.

At NEADS, the reported hijacking was relayed immediately to Battle Commander Colonel Robert Marr. After ordering the Otis fighters to battle stations, Colonel Marr phoned Major General Larry Arnold, commanding General of the First Air Force and the Continental Region. Marr sought authorization to scramble the Otis fighters. General Arnold instructed Marr “to go ahead and scramble the airplanes, and we’d get permission later.” General Arnold then called NORAD headquarters to report.

F-15 fighters were ordered scrambled at 8:46 from Otis Air Force Base. But NEADS did not know where to send the alert fighter aircraft: “I don’t know where I’m scrambling these guys to. I need a direction, a destination.” Because the hijackers had turned off the plane’s transponder, NEADS personnel spent the next minutes searching their radar scopes for the elusive primary radar return. American 11 impacted the World Trade Center’s North Tower at 8:46:40. Shortly after 8:50, while NEADS personnel were still trying to locate American 11, word reached them that a plane had hit the World Trade Center.

Radar data show the Otis fighters were airborne at 8:53. Lacking a target, they were vectored toward military controlled airspace off the Long Island coast. To avoid New York area air traffic and uncertain about what to do, the fighters were brought down to military air space to “hold as needed.” From 9:08 to 9:13, the Otis fighters were in this holding pattern.

In summary, NEADS received notice of the hijacking nine minutes before it impacted the north tower. The nine minutes notice was the most the military would receive that morning of any of the four hijackings.

United Airlines Flight 175

FAA Awareness

United Airlines Flight 175, a Boeing 767 carrying 65 passengers from Boston to Los Angeles, took off from Logan Airport at 8:14. At 8:37 Boston Center polled United 175, along with other aircraft, about whether they had seen an “American 767” (American 11), and United 175’s pilots said they had seen it. The controller turned United 175 away from it as a safety precaution.

At 8:41, United 175 entered New York Center’s airspace. The controller responsible for United 175 was unfortunately the same controller assigned the job of tracking the hijacked American 11. At 8:47, at almost the same time American 11 crashed into the

North Tower, United 175's assigned transponder code changed, then changed again. These changes were not noticed for several minutes, because the controller was focused on finding American 11, which had disappeared. At 8:48, a New York Center manager provided the following report on a Command Center teleconference about American 11, including information that had been relayed by the airline:

***Manager, New York Center:** Okay. This is New York Center. We're watching the airplane. I also had conversation with American Airlines, and they've told us that they believe that one of their stewardesses was stabbed and that there are people in the cockpit that have control of the aircraft, and that's all the information they have right now.*

The New York Center controller and manager were unaware that American 11 had already crashed.

At 8:51, the controller noticed the change in the transponder reading from United 175. The controller asked United 175 to go back to the proper code. There was no response. Beginning at 8:52, the controller made repeated attempts to reach the crew of United 175. Still no response. The controller checked that his radio equipment was working and kept trying to reach United 175. He contacted another controller at 8:53, and worried that "we may have a hijack" and that he could not find the aircraft.

Another commercial aircraft in the vicinity then radioed in with "reports over the radio of a commuter plane hitting the World Trade Center." The controller spent the next several minutes handing off the other flights on his scope to other controllers and moving aircraft out of the way of the unidentified aircraft (believed to be United 175) as it moved southwest and then turned northeast toward New York City.

At approximately 8:55, the controller-in-charge notified a New York Center manager that she believed United 175 had also been hijacked. The manager tried to notify the regional managers and was told that the managers were discussing a hijacked aircraft (presumably American 11) and refused to be disturbed. At 8:58, the New York Center controller searching for United 175 told another New York controller "we might have a hijack over here, two of them."

Between 9:01 and 9:02, a manager from New York Center told the Command Center in Herndon:

***Manager, New York Center:** We have several situations going on here. It's escalating big, big time. We need to get the military involved with us*

We're, we're involved with something else, we have other aircraft that may have a similar situation going on here. . . .

The "other aircraft" New York Center referred to was United 175. Evidence indicates

that this conversation was the only notice received prior to the second crash by either FAA headquarters or the Herndon Command Center that there was a second hijack.

While Command Center was told about this “other aircraft” at 9:01, New York Center contacted New York terminal approach control and asked for help in locating United 175.

Terminal: *I got somebody who keeps coasting but it looks like he’s going into one of the small airports down there.*

Center: *Hold on a second. I’m trying to bring him up here and get you— There he is right there. Hold on.*

Terminal: *Got him just out of 9,500—9,000 now.*

Center: *Do you know who he is?*

Terminal: *We’re just, we just we don’t know who he is. We’re just picking him up now.*

Center (at 9:02): *Alright. Heads up man, it looks like another one coming in.*

The controllers observed the plane in a rapid descent; the radar data terminated over lower Manhattan. At 9:03:02, United 175 crashed into the South Tower.

Meanwhile, a manager from Boston Center reported that they had deciphered what they had heard in one of the first hijacker transmissions from American 11:

Boston Center: *Hey... you still there?*

New England Region: *Yes, I am.*

Boston Center: *I’m gonna reconfirm with, with downstairs, but the, as far as the tape...seemed to think the guy said that “we have planes.” Now, I don’t know if it was because it was the accent, or if there’s more than one, but I’m gonna, I’m gonna reconfirm that for you, and I’ll get back to you real quick. Okay?*

New England Region: *Appreciate it.*

Unidentified Female Voice: *They have what?*

Boston Center: *Planes, as in plural.*

Boston Center: *It sounds like, we’re talking to New York, that there’s another one aimed at the World Trade Center.*

New England Region: There's another aircraft?

Boston Center: A second one just hit the Trade Center.

New England Region: Okay. Yeah, we gotta get—we gotta alert the military real quick on this.

Boston Center immediately advised the New England Region that it was going to stop all aircraft scheduled to depart from any airport within Boston Center. At 9:05, Boston Center confirmed for both FAA Command Center and New England Region that the hijackers aboard American 11 said “we have *planes*.” At the same time, New York Center declared “ATC zero”—meaning that aircraft were not permitted to depart from, arrive at, or travel through New York Center’s airspace until further notice.

Within minutes of the second impact, Boston Center’s Operations Manager instructed all air traffic controllers in his center to use the radio frequencies to inform all aircraft in Boston Center of the events unfolding in New York and to advise aircraft to heighten cockpit security. Boston Center asked Herndon Command Center to issue a similar cockpit security alert to all aircraft nationwide. We have found no evidence to suggest that Command Center managers instructed any Centers to issue a cockpit security alert.

Military Notification and Response

The first indication that the NORAD air defenders had of the second hijacked aircraft, United 175, came in a phone call from New York Center to NEADS at 9:03. The notice came in at about the time the plane was hitting the South Tower.

At 9:08, the Mission Crew Commander at NEADS learned of the second explosion at the World Trade Center and decided against holding the fighters in military air space away from Manhattan:

Mission Crew Commander, NEADS: This is what I foresee that we probably need to do. We need to talk to FAA. We need to tell ‘em if this stuff is gonna keep on going, we need to take those fighters, put ‘em over Manhattan. That’s best thing, that’s the best play right now. So coordinate with the FAA. Tell ‘em if there’s more out there, which we don’t know, let’s get ‘em over Manhattan. At least we got some kind of play.

The FAA cleared the air space. The Otis fighters were sent to Manhattan. A Combat Air Patrol was established over the city at 9:25.

Because the Otis fighters had expended a great deal of fuel in flying first to military air space and then to New York, the battle commanders were concerned about refueling. NEADS considered scrambling alert fighters from Langley Air Force Base in Virginia to New York, to provide back-up. The Langley fighters were placed on battle stations at

9:09. NORAD had no indication that any other plane had been hijacked.

The following is a time lapsed depiction of the flight paths of American 11 and United 175.

American Airlines Flight 77

FAA Awareness

American 77 began its takeoff roll from Dulles International Airport at 8:20. The flight was handed off routinely from Washington Center to Indianapolis Center at approximately 8:40.

American 77 was acknowledged by the Indianapolis controller, who had fourteen other planes in his sector at the time. The controller instructed the aircraft to climb and, at 8:50, cleared it to its next navigational aid. American 77 acknowledged. This was the last transmission from American 77.

At 8:54, American 77 began deviating from its flight plan, first with a slight turn toward the south. Two minutes later it disappeared completely from Indianapolis radar.

The controller tracking American 77 told us he first noticed the aircraft turning to the southwest, and then saw the data disappear. The controller looked for primary radar returns. He searched along its projected flight path and the airspace to the southwest where it had started to turn. No primary targets appeared. He tried the radios, first calling the aircraft directly, then the airline. Again there was nothing. At this point, the Indianapolis controller had no knowledge of the situation in New York. He did not know that other aircraft had been hijacked. He believed American 77 had experienced serious electrical and/or mechanical failure, and was gone.

Shortly after 9:00, Indianapolis Center started notifying other agencies that American 77 was missing and had possibly crashed. At 9:08, Indianapolis Center contacted Air Force Search and Rescue at Langley Air Force Base, Virginia, and told them to look out for a downed aircraft. They also contacted the West Virginia State Police, and asked whether they had any reports of a downed aircraft. At 9:09, they reported the loss of contact to the FAA regional center, which passed this information to FAA headquarters at 9:24.

By 9:20, Indianapolis Center learned that there were other hijacked aircraft in the system, and began to doubt their initial assumption that American 77 had crashed. A discussion of this concern between the manager at Indianapolis and the Command Center in Herndon prompted the Command Center to notify some FAA field facilities that American 77 was lost. By 9:21, the Command Center, some FAA field facilities, and American Airlines had started to search for American 77. They feared it had been hijacked. At 9:25, the Command Center advised FAA headquarters that American 77 was lost in Indianapolis Center's airspace, that Indianapolis Center had no primary radar

track, and was looking for the aircraft.

The failure to find a primary radar return for American 77 led us to investigate this issue further. Radar reconstructions performed after 9/11 reveal that FAA radar equipment tracked the flight from the moment its transponder was turned off at 8:56. But for eight minutes and thirteen seconds, between 8:56 and 9:05, this primary radar information on American 77 was not displayed to controllers at Indianapolis Center. The reasons are technical, arising from the way the software processed radar information, as well as from poor primary radar coverage where American 77 was flying.

According to the radar reconstruction, American 77 re-emerged as a primary target on Indianapolis Center radar scopes at 9:05, east of its last known position. The target remained in Indianapolis Center's airspace for another six minutes, then crossed into the western portion of Washington Center's airspace at 9:10. As Indianapolis Center continued searching for the aircraft, two managers and the controller responsible for American 77 looked to the west and southwest along the flight's projected path, not east—where the aircraft was now heading. The managers did not instruct other controllers at Indianapolis Center to turn on their primary radar coverage to join in the search for American 77.

In sum, Indianapolis Center never saw Flight 77 turn around. By the time it reappeared in primary radar coverage, controllers had either stopped looking for the aircraft because they thought it had crashed or were looking toward the west. In addition, while the Command Center learned Flight 77 was missing, neither it nor FAA headquarters issued an "all points bulletin" to surrounding centers to search for primary radar targets. American 77 traveled undetected for 36 minutes on a course heading due east for Washington, DC.

By 9:25, FAA's Herndon Command Center and FAA headquarters knew the following. They knew two aircraft had crashed into the World Trade Center. They knew American 77 was lost. They knew that a hijacker on board American 11 had said "we have some planes," and concerns over the safety of other aircraft began to mount. A manager at the Herndon Command Center asked FAA headquarters if they wanted to order a "nationwide ground stop." While executives at FAA headquarters discussed it, the Command Center went ahead and ordered one anyway at 9:25.

The Command Center kept looking for American 77. At 9:21, it advised the Dulles terminal control facility, which urged its controllers to look for primary targets. At 9:32, they found one. Several of the Dulles controllers "observed a primary radar target tracking eastbound at a high rate of speed" and notified Reagan Airport. FAA personnel at both Reagan and Dulles airports notified the Secret Service. The identity or aircraft type was unknown.

Reagan Airport controllers then vectored an unarmed National Guard C-130H cargo aircraft, which had just taken off en route to Minnesota, to identify and follow the

suspicious aircraft. The C-130H pilot spotted it, identified it as a Boeing 757, attempted to follow its path, and at 9:38, seconds after impact, reported to Washington Tower: “looks like that aircraft crashed into the Pentagon sir.”

Military Notification and Response

NORAD did not know about the search for American 77. Instead, they heard once again about a plane that no longer existed, American 11. At 9:21, NEADS received a report from the FAA:

FAA: Military, Boston Center. I just had a report that American 11 is still in the air, and it's on its way towards—heading towards Washington.

NEADS: Okay. American 11 is still in the air?

FAA: Yes.

NEADS: On its way towards Washington?

FAA: That was another—it was evidently another aircraft that hit the tower. That's the latest report we have.

NEADS: Okay.

FAA: I'm going to try to confirm an ID for you, but I would assume he's somewhere over, uh, either New Jersey or somewhere further south.

NEADS: Okay. So American 11 isn't the hijack at all then, right?

FAA: No, he is a hijack.

NEADS: He—American 11 is a hijack?

FAA: Yes.

NEADS: And he's heading into Washington?

FAA: Yes. This could be a third aircraft.

The mention of a “third aircraft” was *not* a reference to American 77. There was confusion at that moment in the FAA. Two planes had struck the World Trade Center, and Boston Center had heard from FAA headquarters in Washington that American 11 was still airborne. We have been unable to identify the source of this mistaken FAA information.

The NEADS technician who took this call from the FAA immediately passed the word to the Mission Crew Commander. He reported to the NEADS Battle Commander:

***Mission Crew Commander, NEADS:** Okay, uh, American Airlines is still airborne. Eleven, the first guy, he's heading towards Washington. Okay? I think we need to scramble Langley right now. And I'm gonna take the fighters from Otis, try to chase this guy down if I can find him.*

The Mission Crew Commander at NEADS issued an order at 9:23: "Okay ... scramble Langley. Head them towards the Washington area." That order was processed and transmitted to Langley Air Force Base at 9:24, and radar data show the Langley fighters were airborne at 9:30.

NEADS decided to keep the Otis fighters over New York. The heading of the Langley fighters was adjusted to send them to the Baltimore area. The Mission Crew Commander explained to us that the purpose was to position the Langley fighters between the reported southbound American 11 and the nation's capital.

At the suggestion of the Boston Center's military liaison, NEADS contacted the FAA's Washington Center to ask about American 11. In the course of the conversation, a Washington Center manager informed NEADS that "We're looking—we also lost American 77." The time was 9:34. This was the first notice to the military that American 77 was missing, and it had come by chance. If NEADS had not placed that call, the NEADS air defenders would have received no information whatsoever that American 77 was even missing, although the FAA had been searching for it. No one at FAA Command Center or headquarters ever asked for military assistance with American 77.

At 9:36, the FAA's Boston Center called NEADS and relayed the discovery about the aircraft closing in on Washington, an aircraft that still had not been linked with the missing American 77. The FAA told NEADS: "Latest report. Aircraft VFR [Visual Flight Rules] six miles southeast of the White House. ... Six, southwest. Six, southwest of the White House, deviating away." This startling news prompted the Mission Crew Commander at NEADS to take immediate control of the airspace to clear a flight path for the Langley fighters: "Okay, we're going to turn it ... crank it up. ... Run them to the White House." He then discovered, to his surprise, that the Langley fighters were not headed north toward the Baltimore area as instructed, but east over the ocean. "I don't care how many windows you break," he said. "Damn it... Okay. Push them back."

The Langley fighters were heading east, not north, for three reasons. First, unlike a normal scramble order, this order did not include a distance to the target, or the target's location. Second, a "generic" flight plan incorrectly led the Langley fighters to believe they were ordered to fly due east (090) for 60 miles. The purpose of the generic flight plan was to quickly get the aircraft airborne and out of local airspace. Third, the lead pilot and local FAA controller incorrectly assumed the flight plan instruction to go "090

for 60” was newer guidance that superseded the original scramble order.

After the 9:36 call to NEADS about the unidentified aircraft a few miles from the White House, the Langley fighters were ordered to Washington, DC. Controllers at NEADS located an unknown primary radar track, but “it kind of faded” over Washington. The time was 9:38. The Pentagon had been struck by American 77 at 9:37:46. The Langley fighters were approximately 150 miles away.

Right after the Pentagon was hit, NEADS learned of another possible hijacked aircraft. It was an aircraft that in fact had not been hijacked at all. After the second World Trade Center crash, Boston Center managers recognized both aircraft were transcontinental, 767 jetliners that departed Logan Airport. Remembering the “we have some planes” remark, Boston Center had guessed that Delta 1989 might also be hijacked. Boston Center called NEADS at 9:41 and identified Delta 1989, a 767 jet that departed Logan Airport destined for Las Vegas, as a possible hijack. NEADS warned the FAA’s Cleveland air traffic control center to watch Delta 1989. The FAA’s Herndon Command Center and FAA headquarters were watching it too. During the course of the morning, there were multiple erroneous reports of hijacked aircraft in the system. The report of American 11 heading south was the first; Delta 1989 was the second.

NEADS never lost track of Delta 1989, and even launched fighter aircraft from Ohio and Michigan to intercept it. The flight never turned off its transponder. NEADS soon learned that the aircraft was not hijacked, and tracked Delta 1989 as it reversed course over Toledo, headed east, and landed in Cleveland. But another aircraft was heading toward Washington.

The following is a time lapsed depiction of the flight path of American 77.

United Airlines Flight 93

FAA Awareness

United 93 took off from Newark at 8:42. It was more than 40 minutes late. At 9:28, United 93 acknowledged a transmission from the controller. This was the last normal contact the FAA had with United 93.

Less than a minute later, the Cleveland controller and the pilots of aircraft in the vicinity heard “a radio transmission of unintelligible sounds of possible screaming or a struggle from an unknown origin ...”

The controller responded, seconds later: “Somebody call Cleveland?” This was followed by a second radio transmission, with sounds of screaming and someone yelling “Get out of here, get out of here,” again from an unknown source. The Cleveland Center controllers began to try to identify the possible source of the transmissions, and noticed that United 93 had descended some 700 feet. The controller attempted again to raise

United 93 several times, with no response. At 9:30, the controller began to poll the other flights on his frequency to determine if they heard the screaming; several said they had.

At 9:32, a third radio transmission came over the frequency: “Keep remaining sitting. We have a bomb on board.” The controller understood, but chose to respond: “Calling Cleveland center, you’re unreadable. Say again, slowly.” He notified his supervisor, who passed the notice up the chain of command. By 9:34, word of the hijacking had reached FAA headquarters.

FAA headquarters had by this time established an open line of communication with the Command Center at Herndon and instructed it to poll all the Centers about suspect aircraft. The Command Center executed the request and, a minute later, Cleveland Center reported that “United 93 may have a bomb on board.” That was the information Command Center relayed to FAA headquarters at 9:34.

Between 9:34 and 9:38, the controller observed United 93 climbing to 40,700 feet and immediately moved several aircraft out of its way. The controller continued to try to contact United 93, and asked whether the pilot could confirm that he had been hijacked. There was no response.

Then, at 9:39, a fifth radio transmission came over the radio frequency from United 93:

***Ziad Jarrah:** Uh, is the captain. Would like you all to remain seated. There is a bomb on board and are going back to the airport, and to have our demands [unintelligible]. Please remain quiet.*

The controller responded: “United 93, understand you have a bomb on board. Go ahead.” The flight did not respond. At 9:41, Cleveland Center lost United 93’s transponder signal. The controller located it on primary radar, matched its position with visual sightings from other aircraft, and tracked the flight as it turned east, then south.

At about 9:36, Cleveland Center asked Command Center specifically whether someone had requested the military to launch fighter aircraft to intercept United 93. Cleveland Center offered to contact a nearby military base. Command Center replied that FAA personnel well above them in the chain of command had to make that decision and were working the issue.

From 9:34 to 10:08, a Command Center manager updated executives at FAA headquarters on the progress of United 93. During this time, the plane reversed course over Ohio and headed toward Washington.

At 9:42, Command Center learned from television news reports that a plane had struck the Pentagon. The Command Center’s National Operations Manager, Ben Sliney, ordered all FAA facilities to instruct all airborne aircraft to land at the nearest airport. This was a totally unprecedented order. The air traffic control system handled it with

great skill, as about 4,500 commercial and general aviation aircraft soon landed without incident.

At 9:46 and again two minutes later, Command Center updated FAA headquarters that United 93 was now “twenty-nine minutes out of Washington, DC.”

A minute after that, at 9:49, 13 minutes after getting the question from Cleveland Center about military help, Command Center suggested that someone at headquarters should decide whether to request military assistance:

FAA Headquarters: They're pulling Jeff away to go talk about United 93.

Command Center: Uh, do we want to think about, uh, scrambling aircraft?

FAA Headquarters: Uh, God, I don't know.

Command Center: Uh, that's a decision somebody's gonna have to make probably in the next ten minutes.

FAA Headquarters: Uh, ya know everybody just left the room.

At 9:53, FAA headquarters informed Command Center that the Deputy Director for Air Traffic Services was talking to Deputy Administrator Monte Belger about scrambling aircraft. Then Command Center informed headquarters they lost track of United 93 over the Pittsburgh area. Within seconds, Command Center received a visual report from another aircraft, and informed headquarters that the aircraft was 20 miles northwest of Johnstown. United 93 was spotted by another aircraft, and, at 10:01, Command Center advised FAA headquarters that one of the aircraft had seen United 93 “waving his wings.” The aircraft had witnessed the radical gyrations in what we believe was the hijackers’ effort to defeat the passenger assault. United 93 crashed in Pennsylvania at 10:03:11, 125 miles from Washington, DC. The precise crash time has been the subject of some dispute. The 10:03:11 time is supported by evidence from the staff’s radar analysis, the flight data recorder, NTSB analysis, and infrared satellite data.

Five minutes later, Command Center forwarded this update to headquarters:

Command Center: O.K. Uh, there is now on that United 93.

FAA Headquarters: Yes.

Command Center: There is a report of black smoke in the last position I gave you, fifteen miles south of Johnstown.

FAA Headquarters: From the airplane or from the ground?

Command Center: *Uh, they're speculating it's from the aircraft.*

FAA Headquarters: *Okay.*

Command Center: *Uh, who, it hit the ground. That's what they're speculating, that's speculation only.*

The aircraft that spotted the “black smoke” was the same unarmed Air National Guard cargo plane that had seen American 77 crash into the Pentagon 26 minutes earlier. It had resumed its flight to Minnesota and saw the smoke from the crash of United 93, less than two minutes after the plane went down. At 10:17, Command Center advised headquarters of its conclusion that United 93 had indeed crashed.

Despite the discussions about military assistance, no one from FAA headquarters requested military assistance regarding United 93. Nor did any manager at FAA headquarters pass any of the information it had about United 93 to the military.

Military Notification and Response

NEADS first received a call about United 93 from the military liaison at Cleveland Center, at 10:07. Unaware that the aircraft had already crashed, Cleveland passed to NEADS the aircraft's last known latitude and longitude. NEADS was never able to locate United 93 on radar because it was already in the ground.

At the same time, the NEADS Mission Crew Commander was dealing with the arrival of the Langley fighters over Washington, DC. He was sorting out what their orders were with respect to potential targets. Shortly after 10:10, and having no knowledge either that United 93 had been heading toward Washington, DC or that it had crashed, the Mission Crew Commander explicitly instructed that the Langley fighters did *not* have “clearance to shoot” aircraft over the nation's capital.

The news of a reported bomb on board United 93 spread quickly at NEADS. The air defenders searched for United 93's primary radar return and tried to locate assets to scramble toward the plane. NEADS called Washington Center to report:

NEADS: *I also want to give you a heads-up, Washington.*

FAA (DC): *Go ahead.*

NEADS: *United nine three, have you got information on that yet?*

FAA: *Yeah, he's down.*

NEADS: *He's down?*

FAA: Yes.

NEADS: When did he land? 'Cause we have got confirmation—

FAA: He did not land.

NEADS: Oh, he's down? Down?

FAA: Yes. Somewhere up northeast of Camp David.

NEADS: Northeast of Camp David.

FAA: That's the last report. They don't know exactly where.

The time of notification of the crash of United 93 was 10:15. The NEADS air defenders never located the flight or followed it on their radar scopes. The flight had already crashed by the time they learned it was hijacked.

The following is a time lapsed depiction of United 93.

To provide an overview of the materials presented thus far, the following is a time lapsed depiction of all four hijacked flights and the military's response.

Conflicting Accounts

In May 2003 public testimony before this Commission, NORAD officials stated that, at 9:16, NEADS received hijack notification of United 93 from the FAA. This statement was incorrect. There was no hijack to report at 9:16. United 93 was proceeding normally at that time.

In this same public testimony, NORAD officials stated that, at 9:24, NEADS received notification of the hijacking of American 77. This statement was also incorrect. The notice NEADS received at 9:24 was not about American 77. It was notification that American 11 had not hit the World Trade Center and was heading for Washington, DC. A 9:24 entry in a NEADS event log records: "American Airlines #N334AA hijacked." This is the tail number of American 11.

In their testimony, and in other public statements, NORAD officials also stated that the Langley fighters were scrambled to respond to the notifications about American 77 and/or United 93. These statements were incorrect as well. The report of American 11 heading south as the cause of the Langley scramble is reflected not just in taped conversations at NEADS, but in taped conversations at FAA centers, on chat logs compiled at NEADS, Continental Region headquarters, and NORAD, and in other records.

Yet this response to a phantom aircraft, American 11, is not recounted in a single public timeline or statement issued by FAA or DOD. Instead, since 9/11, the scramble of the Langley fighters has been described as a response to the reported hijacking of American 77, or United 93, or some combination of the two. This inaccurate account created the appearance that the Langley scramble was a logical response to an actual hijacked aircraft.

Not only was the scramble prompted by the mistaken information about American 11, but NEADS never even received notice that American 77 was hijacked. It was notified at 9:34 that American 77 was lost. Then, minutes later, NEADS was told that an unknown plane was six miles southwest of the White House. Only then did the already scrambled airplanes start moving directly to Washington, DC.

Thus the military did not have 14 minutes to respond to American 77, as testimony last year suggested. It had at most one or two minutes to respond to the unidentified plane approaching Washington, and the fighters were in the wrong place to be able to help. They had been responding to a report about an aircraft that did not exist.

Nor did the military have 47 minutes to respond to United 93, as would be implied by the account that it received notice about it at 9:16. By the time the military learned about the flight, it had crashed.

At one point the FAA projected that United 93 would reach Washington, DC at about 10:15. By that time the Langley fighters were over Washington. But, as late as 10:10, the operating orders were still “negative clearance to shoot” regarding non-responsive targets over Washington, DC. The word of the authorization to shoot down hijacked civilian aircraft did not reach NEADS until 10:31.

We do not believe that an accurate understanding of the events of that morning reflects discredit on the operational personnel from NEADS or FAA facilities. The NEADS commanders and floor officers were proactive in seeking information, and made the best judgments they could based on the information they received. Individual FAA controllers, facility managers, and Command Center managers thought “outside the box” in recommending a nationwide alert, in ground-stopping local traffic, and, ultimately, in deciding to land all aircraft and executing that unprecedented order flawlessly.

In fact, it was inaccurate accounts of what happened that created questions about supposed delays in the military’s interception of the hijacked aircraft. They also had the effect of deflecting questions about the military’s capacity to obtain timely and accurate information from its own resources. They overstated the FAA’s ability to provide the military timely and useful information that morning.

We now turn to the timing and circumstances of that shoot down authorization—and the role of national leadership in the events that morning.

On the morning of 9/11 there was no one decisionmaker in Washington with perfect information. Various people had various pieces of information, and they were in different locations. The President was initially at an elementary school in Florida, and then en route to Louisiana. At the White House, other decisionmakers gathered in either the White House Situation Room or the underground shelter, formally known as the Presidential Emergency Operations Center. At the Department of Defense, the center of crisis management was the Pentagon's National Military Command Center (NMCC). At the FAA, two locations were pivotal: Washington headquarters and the Command Center in Herndon.

National Decisionmaking from 8:46 to 9:03

When American 11 struck the World Trade Center at 8:46, no one in the White House or traveling with the President knew that it had been hijacked. Immediately afterward, duty officers at the White House and Pentagon began notifying senior officials what had happened.

Even within FAA, the Administrator, Jane Garvey, and her deputy had not been told of a confirmed hijacking before they learned from television that a plane had crashed. Others in the agency were aware, as we explained earlier in this statement.

In Florida, the President's motorcade was just arriving at the Emma E. Booker Elementary School where President Bush was to read to a class and talk about education. White House Chief of Staff Andrew Card told us he was standing with the President outside the classroom when Senior Advisor to the President Karl Rove first informed them that a small, twin engine plane had crashed into the World Trade Center. The President's reaction was that the incident must have been caused by pilot error.

At 8:55, before entering the classroom, the President spoke to National Security Advisor Condoleezza Rice, who was at the White House. She recalled first telling the President it was a twin engine aircraft, then that it was commercial, saying "that's all we know right now, Mr. President."

At the White House, the Vice President had just sat down for a meeting when his assistant told him to turn on his television because a plane had struck the North Tower of the World Trade Center. The Vice President was wondering "how the hell a plane could hit the World Trade Center" when he saw the second aircraft strike the South Tower.

The Agencies Confer

When they learned a second plane had struck the World Trade Center, nearly everyone in the White House told us they immediately knew it was not an accident. The Secret Service initiated a number of security enhancements around the White House Complex. The officials who issued these orders did not know that there were additional hijacked aircraft, or that one such aircraft was en route to Washington. These measures were

precautionary steps because of the strikes in New York. Officials across the government struggled to find out what was going on.

The FAA, the White House, and the Defense Department each initiated a multi-agency teleconference before 9:30. The FAA, following its protocol, set up a hijacking teleconference at approximately 9:20 with several agencies, including the Defense Department. However, FAA and Defense Department participants in this teleconference told us the call played no role in coordinating the military and FAA response to the attacks of 9/11.

The White House Situation Room initiated a video teleconference, chaired by Richard Clarke. While important, it had no immediate effect on the emergency defense efforts.

The Defense Department's NMCC initiated a key teleconference that started at 9:29 as a "Significant Event Conference" and then, at 9:37, resumed as an Air Threat Conference call.* This teleconference lasted over eight hours. The President, Vice President, Secretary of Defense, Vice Chairman of the Joint Chiefs of Staff, and Deputy National Security Advisor all participated in the Air Threat Conference at various points in the day, as did military personnel from the White House underground shelter. So did the President's military aide on Air Force One.

Operators worked feverishly to include the FAA in this teleconference, but they had equipment problems and difficulty finding secure phone numbers. NORAD asked three times before 10:03 to confirm the presence of FAA on the conference, to provide an update on hijackings. The FAA did not join the call until 10:17. The FAA representative who joined the call had no familiarity with or responsibility for a hijack situation, had no access to decisionmakers, and had none of the information available to senior FAA officials by that time.

We found no evidence that, at this critical time, during the morning of September 11, NORAD's top commanders, in Florida or Cheyenne Mountain, ever coordinated with their counterparts at FAA headquarters to improve situational awareness and organize a common response. Lower-level officials improvised—the FAA's Boston Center bypassing the chain of command to contact NEADS. But the highest level Defense Department officials relied on the NMCC's Air Threat Conference, in which FAA did not meaningfully participate.

At 9:39, the NMCC's deputy director for operations, a military officer, opened the call from the Pentagon, which had just been struck by a Boeing 757 airliner. He began: "An air attack against North America may be in progress. NORAD, what's the situation?"

NORAD said it had conflicting reports. Its latest information was "of a possible hijacked

* All times given for this conference call are our estimates, which we believe to be accurate within a ±3 minute margin of error.

aircraft taking off out of JFK en route to Washington D.C.”

The NMCC mentioned reports of a crash into the mall side of the Pentagon and requested that the Secretary of Defense be added to the conference.

At 9:44, NORAD briefed the conference on the possible hijacking of Delta Flight 1989. Two minutes later the Office of the Secretary of Defense and the Office of the Vice Chairman of the Joint Chiefs of Staff reported that they were still trying to track down the Secretary and Vice Chairman, and bring them into the conference. The Chairman was out of the country.

At 9:48, a representative from the underground shelter at the White House asked if there were any indications of another hijacked aircraft. The NMCC deputy director for operations mentioned the Delta flight and concluded “that would be the fourth possible hijack.” At 9:49, the commander of NORAD directed all air sovereignty aircraft to battle stations fully armed.

At 9:59, an Air Force Lieutenant Colonel working in the White House Military Office joined the conference and stated that he had just talked to Deputy National Security Advisor Steve Hadley. The White House requested: (1) the implementation of continuity of government measures, (2) fighter escorts for Air Force One, and (3) the establishment of a fighter combat air patrol over Washington, DC.

The President and the Vice President

The President was seated in a classroom of second graders when, at approximately 9:05, Andrew Card whispered to him: “A second plane hit the second tower. America is under attack.” The President told us his instinct was to project calm, not to have the country see an excited reaction at a moment of crisis. The national press corps was standing behind the children in the classroom; he saw their phones and pagers start to ring. The President felt he should project strength and calm until he could better understand what was happening.

The President remained in the classroom for another five to seven minutes, while the children continued reading. He then returned to a holding room shortly before 9:15, where he was briefed by staff and saw television coverage. He then spoke to Vice President Cheney, Dr. Rice, Governor Pataki, and FBI Director Mueller. He decided to make a brief statement from the school before leaving for the airport. The Secret Service told us they were anxious to move the President to a safer location, but did not think it imperative for him to run out the door.

Between 9:15 and 9:30, the staff was busy arranging a return to Washington, while the President consulted his senior advisers about his remarks. No one in the traveling party had any information during this time that other aircraft were hijacked or missing. As far as we know, no one was in contact with the Pentagon. The focus was on the President's

statement to the nation. No decisions were made during this time, other than the decision to return to Washington.

The President's motorcade departed at 9:35, and arrived at the airport between 9:42 and 9:45. During the ride the President learned about the attack on the Pentagon. He boarded the aircraft, asked the Secret Service about the safety of his family, and called the Vice President. According to notes of the call, at about 9:45 the President told the Vice President: "Sounds like we have a minor war going on here, I heard about the Pentagon. We're at war....somebody's going to pay."

About this time Card, the lead Secret Service agent, the President's military aide, and the pilot were conferring on a possible destination for Air Force One. The Secret Service agent felt strongly that the situation in Washington was too unstable to return. Card agreed. The President, however, needed convincing. All witnesses agreed that the President strongly wanted to return to Washington and only grudgingly agreed to go elsewhere. The issue was still undecided when the President conferred with the Vice President at about the time Air Force One was taking off. The Vice President recalled urging the President not to come back to Washington. Air Force One departed at approximately 9:55, with no destination at take-off. The objective was to get up in the air—as fast and as high as possible—and then decide where to go.

News of an incoming aircraft (later discovered to be American 77) prompted the Secret Service to order the evacuation of the Vice President just before 9:36. The Vice President entered the underground tunnel that led to the shelter at 9:37.

Once inside, Vice President Cheney and the agents paused in an area of the tunnel that had a secure phone, a bench, and a television. The Vice President asked to speak to the President, but it took time for the call to be connected. He learned in the tunnel that the Pentagon had been hit, and saw television coverage of smoke coming from the building.

The Secret Service logged Mrs. Cheney's arrival at the White House at 9:52. She joined her husband in the tunnel. According to contemporaneous notes, at 9:55 the Vice President was still on the phone with the President advising that three planes were missing and one had hit the Pentagon. We believe this is the same call initiated close to the time Air Force One took off, in which the Vice President joined the chorus of advisers urging the President not to return to Washington. The call ended. She and the Vice President moved from the tunnel to the shelter conference room.

United 93 and the Shootdown Order

There was not an open line of communication between the President and Vice President on the morning of 9/11, but rather a series of calls between the two leaders. The Vice President remembered placing a call to the President just after entering the shelter conference room. There is conflicting evidence as to when the Vice President arrived in the shelter conference room. We have concluded, after reviewing all the available

evidence, that the Vice President arrived in the shelter conference room shortly before 10:00, perhaps at 9:58. The Vice President recalls being told, just after his arrival, that an Air Force combat air patrol (CAP) was up over Washington. At 9:59, a White House request for such a CAP was communicated to the military through the Air Threat Conference.

The Vice President states that the purpose of his call to the President was to discuss the rules of engagement for the CAP. He recalled he felt it did not do any good to put the CAP up there unless the pilots had instructions to tell them whether they were authorized to shoot if the plane would not divert. He said the President signed off on that concept. The President said he remembered such a conversation, and that it reminded him of when he had been a fighter pilot. The President emphasized to us that he had authorized the shoot down of hijacked aircraft.

The Vice President's military aide told us he believed the Vice President spoke to the President just after entering the conference room, but he did not hear what they said. Rice, who entered the conference room shortly after the Vice President and sat next to him, recalled hearing the Vice President inform the President that, "Sir, the CAPs are up. Sir, they're going to want to know what to do." Then she recalled hearing him say, "Yes sir." She believed this conversation occurred a few minutes, perhaps five, after they entered the conference room.

We believe this call would have taken place some time before 10:10 to 10:15. Among the sources that reflect other important events that morning there is no documentary evidence for this call, although the relevant sources are incomplete. Others nearby who were taking notes, such as the Vice President's Chief of Staff, Scooter Libby, who sat next to him, and Mrs. Cheney, did not note a call between the President and Vice President immediately after the Vice President entered the conference room.

At 10:02, the communicators in the shelter began receiving reports from the Secret Service of an inbound aircraft—presumably hijacked—heading toward Washington. That aircraft was United 93.

The Secret Service was getting this information directly from the FAA, through its links to that agency. The Service's operations center and their FAA contact were tracking the progress of the aircraft on a display that showed its projected path, not its actual radar return. Thus, for a time, they were not aware the aircraft was going down in Pennsylvania.

At some time between 10:10 and 10:15, a military aide told the Vice President and others that the aircraft was 80 miles out. Vice President Cheney was asked for authority to engage the aircraft.

The Vice President's reaction was described as quick and decisive: "in about the time it takes a batter to decide to swing." He authorized fighter aircraft to engage the inbound

plane. He told us this was based on his prior conversation with the President. The military aide returned a few minutes later, probably between 10:12 and 10:18, and said the aircraft was 60 miles out. He again asked for authorization to engage. The Vice President again said yes. The Secret Service was postulating the flight path of United 93, not knowing it had already crashed.

Also at the conference room table was White House Deputy Chief of Staff Joshua Bolten. Bolten watched the exchanges and, after what he called “a quiet moment,” suggested that the Vice President get in touch with the President and confirm the engage order. Bolten told us he wanted to make sure the President was told that the Vice President had executed the order. He said he had not heard any prior conversation on the subject with the President. The Vice President was logged calling the President at 10:18 for a two-minute call that obtained the confirmation. On Air Force One, at 10:20, the President’s press secretary, Ari Fleischer, noted that the President told him he had authorized a shutdown of aircraft, if necessary.

Minutes went by and word arrived of an aircraft down over Pennsylvania. Those in the conference room wondered if perhaps the aircraft had been shot down pursuant to these directions.

At approximately 10:30, the shelter started receiving reports of another hijacked plane, this time only five to ten miles out. Believing they had only a minute or two, once again the Vice President communicated authority to “engage” or “take out” the airborne aircraft. At 10:33, Deputy National Security Advisor Stephen Hadley passed that guidance on the Air Threat Conference call: “I need to get word to Dick Myers that our reports are there’s an inbound aircraft flying low 5 miles out. The Vice President’s guidance was we need to take them out....”

Once again, there was no immediate information about the fate of the inbound aircraft. As one witness to the event described, “It drops below the radar screen, and it’s just continually hovering in your imagination; you don’t know where it is or what happens to it.” Eventually, the shelter received word that the alleged hijacker five miles away had been a Medevac helicopter.

Transmission of the Authorization from the White House to the Pilots

The National Military Command Center learned of the hijacking of United 93 at about 10:03. The FAA had not yet been connected to the Air Threat Conference and in general had practically no contact with the military at the level of national command. The NMCC instead received news about the hijacking of United 93 from the White House. The White House had received the word from the Secret Service’s contacts with the FAA.

NORAD had no information either. In response to questions, the NORAD representative on the Air Threat Conference stated at 10:07: “NORAD has no indication of a hijack

heading to Washington DC at this time.”

Repeatedly between 10:14 and 10:19, a lieutenant colonel at the White House relayed the information to the National Military Command Center that the Vice President had confirmed fighters were cleared to engage the inbound aircraft if they could verify that the aircraft was hijacked.

The commander of NORAD, General Eberhart, was en route to the NORAD operations center in Cheyenne Mountain, Colorado when the shoot down order was communicated on the Air Threat Conference. He told us that by the time he arrived at the Mountain the order had already been passed down the NORAD chain of command.

It is not clear how the shoot down order was communicated to the Continental Region headquarters. But we know that, at 10:31, General Larry Arnold instructed his staff to broadcast the following message over a NORAD chat log: “10:31 Vice president has cleared to us to intercept tracks of interest and shoot them down if they do not respond, per CONR CC [General Arnold].”

In upstate New York, NEADS personnel first learned of the shoot down order from that chat log message:

***Floor Leadership:** You need to read this...The Region Commander has declared that we can shoot down aircraft that do not respond to our direction. Copy that?*

***Controllers:** Copy that, sir.*

***Floor Leadership:** So if you're trying to divert somebody and he won't divert—*

***Controllers:** DO [Director of Operations] is saying no.*

***Floor Leadership:** No? It came over the chat... You got a conflict on that direction?*

***Controllers:** Right now no, but—*

***Floor Leadership:** Okay? Okay, you read that from the Vice President, right? Vice President has cleared. Vice President has cleared us to intercept traffic and shoot them down if they do not respond per CONR CC [General Arnold].*

In interviews with us, NEADS personnel expressed considerable confusion over the nature and effect of the order.

Indeed, the NEADS Commander told us he did not pass along the order because he was unaware of its ramifications. Both the mission commander and the weapons director indicated they did not pass the order to the fighters circling Washington and New York

City because they were unsure how the pilots would, or should, proceed with this guidance. In short, while leaders in Washington believed the fighters circling above them had been instructed to “take out” hostile aircraft, the only orders actually conveyed to the Langley pilots were to “ID type and tail.”

In most cases the chain of command in authorizing the use of force runs from the President to the Secretary of Defense and from the Secretary to the combatant commander. The President apparently spoke to Secretary Rumsfeld briefly sometime after 10:00, but no one can recall any content beyond a general request to alert forces. The President and the Secretary did not discuss the use of force against hijacked airliners in this conversation.

The Secretary did not become part of the chain of command for those orders to engage until he arrived in the NMCC. At 10:39, the Vice President tried to bring the Secretary up to date as both participated in the Air Threat Conference:

***Vice President:** There’s been at least three instances here where we’ve had reports of aircraft approaching Washington—a couple were confirmed hijack. And, pursuant to the President’s instructions I gave authorization for them to be taken out. Hello?*

***SecDef:** Yes, I understand. Who did you give that direction to?*

***Vice President:** It was passed from here through the operations center at the White House, from the [shelter].*

***SecDef:** OK, let me ask the question here. Has that directive been transmitted to the aircraft?*

***Vice President:** Yes, it has.*

***SecDef:** So we’ve got a couple of aircraft up there that have those instructions at the present time?*

***Vice President:** That is correct. And it’s my understanding they’ve already taken a couple of aircraft out.*

***SecDef:** We can’t confirm that. We’re told that one aircraft is down but we do not have a pilot report that they did it.*

As this exchange shows, Secretary Rumsfeld was not involved when the shoot down order was first passed on the Air Threat Conference. After the Pentagon was hit, Secretary Rumsfeld went to the parking lot to assist with rescue efforts. He arrived in the National Military Command Center shortly before 10:30. He told us he was just gaining situational awareness when he spoke with the Vice President, and that his primary

concern was ensuring that the pilots had a clear understanding of their rules of engagement.

The Vice President was mistaken in his belief that shoot down authorization had been passed to the pilots flying at NORAD's direction. By 10:45 there was, however, another set of fighters circling Washington that had entirely different rules of engagement. These fighters, part of the 113th Wing of the DC Air National Guard, launched out of Andrews Air Force Base based on information passed to them by the Secret Service. The first of the Andrews fighters was airborne at 10:38.

General Wherley—the commander of the 113th Wing—reached out to the Secret Service after hearing second hand reports that it wanted fighters airborne. A Secret Service agent had a phone in each ear, one to Wherley and one to a fellow agent at the White House, relaying instructions that the White House agent said he was getting from the Vice President. The guidance for Wherley was to send up the aircraft, with orders to protect the White House and take out any aircraft that threatens the Capitol. General Wherley translated this in military terms to “weapons free,” which means the decision to shoot rests in the cockpit, or in this case the cockpit of the lead pilot. He passed these instructions to the pilots that launched at 10:42 and afterward.

Thus, while the fighter pilots under NORAD direction who had scrambled out of Langley never received any type of engagement order, the Andrews pilots were operating under “weapons free”—a permissive rule of engagement. The President and the Vice President told us they had not been aware that fighters had been scrambled out of Andrews, at the request of the Secret Service and outside of the military chain of command.

Reflections on United 93

Had it not crashed in Pennsylvania at 10:03, we estimate that United 93 could not have reached Washington, DC any earlier than 10:13, and most probably would have arrived before 10:23. We examined the military's ability to intercept it.

There was only one set of fighters orbiting Washington, DC during this timeframe—the Langley F-16s. They were armed and under NORAD's control.

But the Langley pilots were never briefed about the reason they were scrambled. As the lead pilot explained, "I reverted to the Russian threat...I'm thinking cruise missile threat from the sea. You know you look down and see the Pentagon burning and I thought the bastards snuck one by us. . . . [Y]ou couldn't see any airplanes, and no one told us anything." The pilots knew their mission was to identify and divert aircraft flying within a certain radius of Washington, but did not know that the threat came from hijacked commercial airliners.

Also, NEADS did not know where United 93 was when it first heard about the hijacking from FAA at 10:07. Presumably FAA would have provided the information, but we do

not know how long it would have taken, nor how long it would have taken NEADS to find and track the target on its own equipment.

Once the target was known and identified, NEADS needed orders to pass to the pilots. Shoot down authority was first communicated to NEADS at 10:31. Given the clear attack on the United States, it is also possible—though unlikely—that NORAD commanders could have ordered the shoot down without the authorization communicated by the Vice President.

NORAD officials have maintained that they would have intercepted and shot down United 93. We are not so sure. We are sure that the nation owes a debt to the passengers of United 93. Their actions saved the lives of countless others, and may have saved either the U.S. Capitol or the White House from destruction.

The details of what happened on the morning of September 11 are complex. But the details play out a simple theme. NORAD and the FAA were unprepared for the type of attacks launched against the United States on September 11, 2001. They struggled, under difficult circumstances, to improvise a homeland defense against an unprecedented challenge they had never encountered and had never trained to meet.