

it had been hijacked. At 9:25, the Command Center advised FAA headquarters of the situation.<sup>141</sup>

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 8 minutes and 13 seconds, between 8:56 and 9:05, this primary radar information on American 77 was not displayed to controllers at Indianapolis Center.<sup>142</sup> 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 reemerged 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. Managers did not instruct other controllers at Indianapolis Center to turn on their primary radar coverage to join in the search for American 77.<sup>143</sup>

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. Although 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, D.C.<sup>144</sup>

By 9:25, FAA’s Herndon Command Center and FAA headquarters knew two aircraft had crashed into the World Trade Center. They knew American 77 was lost. At least some FAA officials in Boston Center and the New England Region knew that a hijacker on board American 11 had said “we have some planes.” 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 this was being discussed by executives at FAA headquarters, the Command Center ordered one at 9:25.<sup>145</sup>

The Command Center kept looking for American 77. At 9:21, it advised the Dulles terminal control facility, and Dulles 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 National Airport. FAA personnel at both Reagan National and Dulles airports notified the Secret Service. The aircraft’s identity or type was unknown.<sup>146</sup>

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