

The Smoking Plane

The official* impact time of United Flight 93 is 10:03:11 AM.

A “report of black smoke” was made “about 1 minute 37 seconds after the [official] impact time of United 93,” that is, at about 10:04:48 AM, from an Air National Guard plane in the area.

But a seismic report determined that the impact of United Flight 93 with the ground was at 10:06:05 AM plus or minus 5 seconds. If the seismic data are correct, then the black smoke of Flight 93’s demise was reported while Flight 93 was still airborne.

The controversy regarding the precise “impact time” has great importance to the question of whether Flight 93 was destroyed while airborne or whether it was deliberately crashed by the hijackers, as the 9/11 Commission speculates. Although other possible fates of Flight 93 exist, only these two are considered here.

The 9/11 Commission Report [July 2004, page 30]

United 93 crashed in Pennsylvania at **10:03:11**, 125 miles from Washington, D.C. The precise crash time has been the subject of some dispute. The 10:03:11 impact time is supported by previous National Transportation Safety Board analysis and by evidence from the Commission staff’s analysis of radar, the flight data recorder, the cockpit voice recorder, infrared satellite data, and air traffic control transmissions. 168

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

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. 169

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 27 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. 170

The 9/11 Commission Report [endnote #170, page 462]

170. . . . For communication regarding “black smoke,” see FAA memo, “Full Transcript; Aircraft Accident; N591UA (UAL93) Somerset, PA; September 11, 2001,” May 10, 2002, pp. 16–18 (Cleveland Center, Imperial Radar position). **This report from the C-130H was recorded on ATC audio about 1 minute and 37 seconds after the impact time of United 93** as established by NTSB and Commission analysis of FDR, CVR, radar, and impact data sets — more than a minute before the earliest impact time originally posited by the authors of the seismic data report. [Note: The authors of the seismic report posited only one time, 10:06:05±5, no others.]

The 9/11 Commission Report [endnote #168, pages 461-462]

168. . . . We also reviewed a report regarding seismic observations on September 11, 2001, whose authors conclude that the impact time of United 93 was “10:06:05±5 (EDT).” Won-Young Kim and G. R. Baum, “Seismic Observations during September 11, 2001, Terrorist Attack,” spring 2002 (report to the Maryland Department of Natural Resources). But the seismic data on which they based this estimate are far too weak in signal-to-noise ratio and far too speculative in terms of signal source to be used as a means of contradicting the impact time established by the very accurate combination of FDR, CVR, ATC, radar, and impact site data sets. These data sets constrain United 93’s impact time to within 1 second, are airplane- and crash-site specific, and are based on time codes automatically recorded in the ATC audiotapes for the FAA centers and correlated with each data set in a process internationally accepted within the aviation accident investigation community. Furthermore, one of the study’s principal authors now concedes that “seismic data is not definitive for the impact of UA 93.” Email from Won-Young Kim to the Commission, “Re: UA Flight 93,” July 7, 2004; see also Won-Young Kim, “Seismic Observations for UA Flight 93 Crash near Shanksville, Pennsylvania during September 11, 2001,” July 5, 2004.

Compare excerpts from the original study, “Seismic Observations during September 11, 2001, Terrorist Attack,” below. Please note that “not definitive” evidence can still be the very best that is available. **There is no seismic evidence to support the official impact time (into the ground) of 10:03:11, a fact Dr. Kim confirmed to the Commission** in his subsequent report of July 5, 2004. **“For the origin time #1, 10:03:10.9, there are no discernable [sic] seismic signals [sic] to associate with the UA Flight 93 crash.”**

OVER

Excerpts from: **Seismic Observations during September 11, 2001, Terrorist Attack** [March 2002]

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... **[W]e positively identified seismic signals associated with United Airlines Flight 93** that crashed near Shanksville, Somerset County, Pennsylvania. **The time of the plane crash was 10:06:05±5 (EDT).**

...
[The authors used the Pentagon case to explain the basis for their calculations.] If the plane impact to the Pentagon generated strong enough ground motion that could be propagated through the Earth's crust as elastic waves (seismic waves) and recorded at sensitive seismographic stations around the source, we could determine absolute time of the impact by using the arrival times of P, S or surface seismic waves. The accuracy of the measured time would depend upon the clarity and strength of the seismic wave arrivals and our knowledge of crustal structure between the source and seismographic stations. **This method can provide accurate and absolute time of a seismic event**, since most of the **modern seismographic stations are equipped with GPS (Global Positioning System) satellite receivers that can provide absolute time usually within one thousandth of a second accuracy.**

...
Analysis of Seismic Records for United Airlines Flight 93 Crash near Shanksville, Pa

Figure 5 shows seismic record section of vertical-component records from four stations around the United Airlines Flight 93 crash site near Shanksville, Somerset County, Pennsylvania. The location of the site is taken from the web site for the Flight 93 Memorial, URL <http://www.shanksvillememorial.com>. . . . The seismic signals are relatively weak compared with the background noise level. For instance, at stations MCWV and SDMD, the signal (portion of signals just after Sg) to noise (portion of records just before Pg arrivals) ratios are about 1:1, whereas, at station SSPA [Standing Stone, Pa.] the ratio is about 2.5:1 and at MVL [Millersville, Pa.] it is about 2:1 (Figure 5).

Although, seismic signals across the network are not as strong and clear as the WTC case (see Kim et al., 2001), **three component records at station SSPA (= 107.6 km) shown in Figure 6 are quite clear. The three-component records at SSPA are dominated by strong Lg arrivals**, whereas the Pg waves are difficult to discern and have amplitudes comparable to the noise level. **This is typical for seismic waves generated by airplane impacts and crashes. . . . Hence, we infer that the Flight 93 crashed around 14:06:05±5 (UTC) (10:06:05 EDT). The uncertainty is only due to seismic velocity at the uppermost crust near the surface in which the Lg waves propagated.**

...
Vertical Seismic Records for United Flight 93 Crash near Shanksville, Pa.

Figure 5: Seismic record section of vertical records from the United Airlines Flight 93 crash near Shanksville, Pa on Sept. 11, 2001. **Relatively consistent seismic signals arrivals are discernible at stations, SSPA and MVL.** Maximum zero-to-peak amplitude at SSPA is about 140 nm/s.

...
Three-component Records at SSPA for United Flight 93 Crash near Shanksville, Pa

Figure 6: Three-component seismic records, vertical, North-South, and East-West components, at station SSPA from the United Airlines Flight 93 crash near Shanksville, Pa on Sept. 11, 2001. **Short-period surface waves, Rg and Lg waves, are quite clear. . . .**

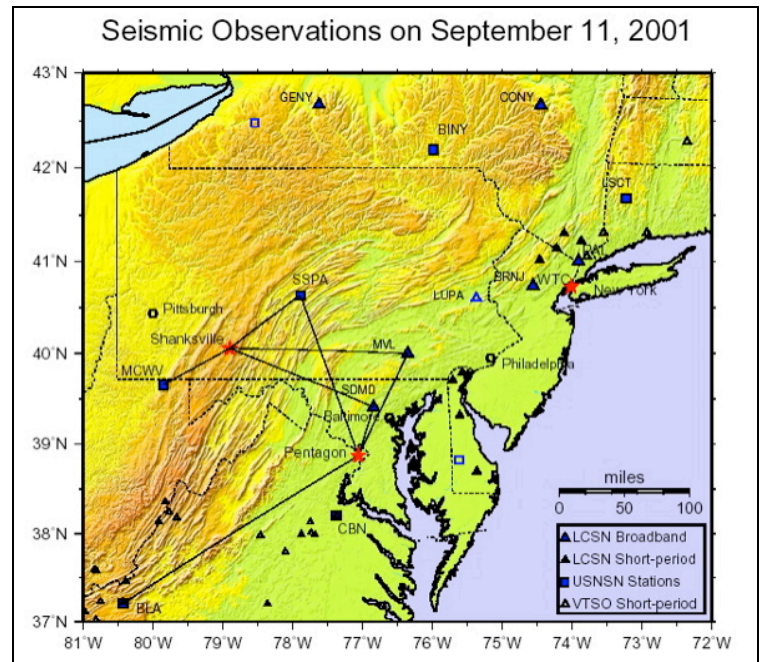
9/11 COMMISSION HEARING **May 23, 2003**

COMMISSIONER TIM ROEMER: So the only time you ever received information on a shoot-down was on Flight number 93, and that was --

GENERAL LARRY ARNOLD: After the fact.

MR. ROEMER: . . . And when you had that after the fact, as Commissioner Hamilton asked you, that was at what time?

GEN. ARNOLD: I believe the time -- we do not have a record on this. **I remember the time being somewhere around 10:05 . . .**



* **The Report of the Joint Inquiry into Intelligence Community Activities Before and After the Terrorist Attacks of September 11, 2001** [December 2002] presents a conflicting official crash time.

“United Airlines Flight 93 crashed in Pennsylvania at **10:10 a.m.**” [page 435]

Either the intelligence committees of Congress were guessing or “impact site data sets” are subject to modification.