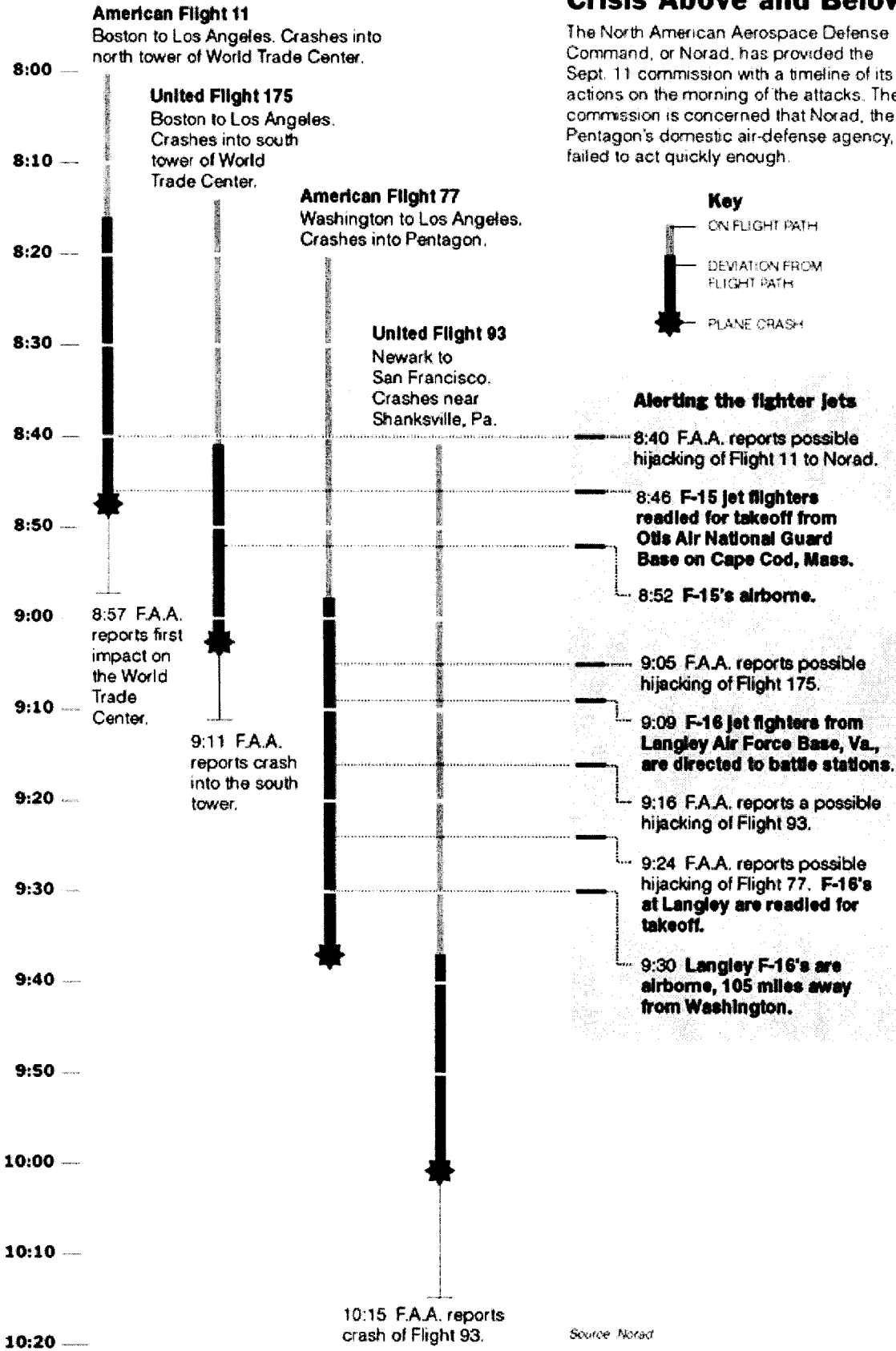


## Crisis Above and Below

The North American Aerospace Defense Command, or Norad, has provided the Sept. 11 commission with a timeline of its actions on the morning of the attacks. The commission is concerned that Norad, the Pentagon's domestic air-defense agency, failed to act quickly enough.



Source: Norad

Sarah Slobin/The New York Times

## 11 Sep 01 Timeline

Time (Z):	Action:
1202	AAL 11 first radar data (Boston)
1216	UAL 175 first radar data (Boston)
1219	AAL 77 first radar data (Dulles)
1220	AAL 11 transponder off
1240	FAA reports possible hijack of AAL 11
1243	UAL 93 first radar data (Newark)
1246	Otis scrambled on AAL 11
1246	AAL 11 last data near WTC
1250	AAL 77 fade from radar coverage
1252	Otis airborne
1253	Otis first radar data
1257	From Boston FAA, AAL 11 crashed into WTC
1302	UAL 175 last radar data near WTC
1305	FAA reports possible hijack of UAL 175
1309	AAL 77 fade from radar
1309	Langley on battle stations
1311	UAL 175 reported crashed into the second WTC tower
1316	FAA reports possible hijack of another UAL flight, tail number N612UA
1324	FAA reports possible hijack of AAL 77, tail number N334AA
1324	Langley scrambled on AAL 77
1325	AAL 77 headed toward Washington DC
1327	Boston FAA reports a fifth aircraft missing
1330	Langley first radar data
1332	Andrews AFB training C-130 airborne (Gopher 06)
1334	Unable to locate AAL 77
1335	Langley reported airborne
1337	AAL 77 last data near Pentagon
1340	UAL 93 transponder off
1341	FAA reports Delta 89 possible hijack
1346	UAL 93 fades from Detroit radar
1347	Delta 89 landed in Cleveland
1401	103 ACS has radar up for support
1402	UAL 93 last data near Shanksville, PA
1403	Estimated UAL 93 ground impact
1405	2 Selfridge ANGB, fighters land
1407	FAA reports a bomb on board UAL 93 over Pitt
1410	Remaining Selfridge fighters land
1415	UAL 93 crash reported north of Camp David
1417	Toledo fighter, first radar data (Sting 11)
1429	Andrews C-130 last radar data near Pittsburgh
1444	Syracuse airborne (Cobra 1 and Apex 1/2)

*AO contained  
in NTSB files  
attributed  
to RADES*

AC	Sched	Actual	T/O	RADIO	XPRND	TURN	IMPACT	SUP	ROC	ATSCC	WOC
11	0745	0800	0825 7/10 <i>radar for 7/10</i>	0813	0820	0826 0811	0847 0832	0825			
175	0758	0814	0843	0843	0846 0847 <i>Change</i>	0851 0835	0903 0847				
77	0810	0820	0853 1/2	0851	0856 <i>all radar</i>	0853 0843	0937 0927				
43	0800	0842	0927 <i>Locin D called for a sup statement</i>	0927	0941 <i>all radar</i>	0935 0853	1003 1174	0933	0940	0940	

Attempts

FLIGHT 11 TIMELINE: PARTIAL (AIRLINE AWARENESS)

TIME (EDT)	SOURCE	EVENT
08:19	FBI Airphone Analysis	Betty Ong Call to Raleigh Reservations (Minter) begins
08:21	AA Transcripts/Recordings	Nydia Gonzalez joins Ong Call, calls Craig Marquis
08:22	FBI Airphone Analysis	Amy Sweeney Call to Boston (didn't go through)
08:23	AA Transcripts/Recordings	Ong-Raleigh recording ends
08:24	FBI Airphone Analysis	Amy Sweeney Call to Boston (didn't go through)
08:25	AA Transcripts/Recordings	Craig Marquis-Peggy Houck Call
08:25	FBI Airphone Analysis Woodward MFR	Amy Sweeney Call to Evelyn Nunez (cut off)
08:29	AA Transcripts/Recordings	Bill Halleck Call to Boston ATC
08:29	FBI Airphone Analysis Woodward MFR	Amy Sweeney Call to Boston (didn't go through)
08:32	FBI Airphone Analysis Woodward MFR	Amy Sweeney Call to Michael Woodward begins
08:33	AA Transcripts/Recordings	Bill Halleck reports to Craig Marquis on ATC information (including threatening voices heard from cockpit and loss of transponder)
08:40	AA Transcripts/Recordings	Nancy Wyatt (BOS)-Ray Howland Call begins
08:41	AA Transcripts/Recordings	Craig Marquis tells (Halleck?) to have ATC treat as emergency
08:42	AA Transcripts/Recordings	First Gonzalez-Marquis tape ends
08:44	AA Transcripts/Recordings	Ray Howland reports Amy Sweeney Call to Craig Marquis
08:44	AA Transcripts/Recordings	Loss of contact with Betty Ong and Amy Sweeney
08:45	AA Transcripts/Recordings	End of Gonzalez-Marquis Call
08:48	AA Transcripts/Recordings	End of Wyatt-Howland Call

Chronology of Events  
September 11, 2001

AT Situation Room (HQ)

11 Sep 01

8:44am AAL11, B767, BOS..LAX lost radar and communication by ZBW

8:57am AAL77, B757, IAD..LAX, ZID lost radar vicinity York KY

9:15am UAL175, B767, lost radar South of Kingston,

9:40am Explosion at Pentagon

9:47am 1<sup>st</sup> impact World Trade Center

9:50am DAL1989, B767, BOS..LAX Divert to CLE due to bomb threat

9:58am DAL1989, reported out of FL220 landing CLE as a precaution, NOT A HIJACK

10:01am UAL93, B757, EWR..SFO bomb aboard, 40 miles SE PIT headed eastbound spotted by a VFR at 075

10:02am AGL reports a HIJACK/Bomb threat – unknown call-sign type

10:03am AEA reports that a fast moving twin from Pougipsee towards world trade center

10:06am TWA315 refused to go to PIT diverting to IAD, altitude 160

10:07am Lost radar with UAL93 south Johnstown, PA

10:07am 2<sup>nd</sup> impact World Trade Center

10:08am CLE AFSS evacuated bomb threat

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~~10:08am TWA315 diverting to ORF~~

10:00am ATC Zero AEA, national hold

10:09am DAL1989 on downwind at CLE

10:10am Receiving 911 calls from UAL93 40 SE Johnston, PA and black smoke

10:10am TWA315 responding to clearances

10:14am Fast-moving A/C 60 NW DC southeastbound headed towards DC

10:15am UAL93 is down, confirmed by C130 after site, in mountains SE Johnstown Somerset, PA

10:17am ZOB bomb threat, evacuating the building

10:18am Aircraft 160 east of Nantucket westbound high rate of speed headed toward BOS

10:20am N84048 departed from Orange county, NY without authorization

10:20am AF1 airborne (F1)

10:20am ZNY reports sterilizing domestic airspace

10:21am ZOB reports two more

Chronology of Events  
September 11, 2001

1022am DAL1989 on ground CLE

1023am Westbound aircraft is coast guard from Nantucket

1024 Air Force fighters trying to ID aircraft west of Nantucket

1025 DC/NY area small airports closed

1026 UAL93 down 3959N/07846W (reported by military) (NE of Camp David)

1027 Essential controllers ordered to stay on duty (non-essential released)

1028 NY/DC area VFR airports (NOTAM'd closed)

1029 ZDC Reports loss of radar with MEP411 (MidWest Express MD80) over BUCKO, WV

1034 MEP411 on final to CMH (original MWE-DCA) - landed without incident

1035 Unconfirmed report - DAL1989 flaps up at CLE

1036 Regions advised not to release essential personnel

1037 Med-evacs out of NY authorized

1038 Controllers ending shifts at ZBW not to be released

1039 DAL1989 parked in secure area/no one exited a/c yet (pilot says he is not being hijacked)

1040 N4 (US attorney general) over Toledo refuses to land (wants to continue to ADW)

~~1041 AAL77 holding in middle ZKC's airspace (later unconfirmed and wrong info)~~

1042 Preliminary report of fire at Camp David

1043 Camp David (conflicting reports) A/C northeast on fire, but Camp David OK

1044 N2 enroute to pick up AAT-1 at MSY

1045 Possible crash site in vicinity of York, KY—possible AAL 77

1050 N2 to be released from DCA

1051 CLE has two unidentified A/C circling in upstate NY at FL350

1052 ZBW ATC zero (evacuating building)

1053 AGL checking on AAL77

1054 AWP/500 confirms no controllers to be released

1055 ZBW evacuated when CG flight reported heading toward BOS (will try to get controllers back in building)

1056 AEA to release controllers with relatives who work at World Trade Center

Chronology of Events  
September 11, 2001

1057 N4 inbound to DCA (ETA 1200) should be cleared

1058 ZOB local police reports A/C circling ZOB—will release personnel if needed

1059 AWP requested how many a/c inbound to LAX area

1102 AEA confirms US inbounds diverted to Canada

1103 AAL77 suspected down near Ashland KY

1104 ZID does not know about crash in Ashland area

1110 NTSB told ORD controllers not to return to facility—FAA countermanded NTSB order

1111 N4 reportedly diverted to Richmond; military advised that they need to work with ATC to release med evac aircraft in NY/DC area

1112 FBI on site in LAX ATCT observing

1113 Military scrambled fighters to a/c circling ZOB

1114 Attempting to get General Cavanaugh (FAA head of security) from Puerto Rico back to US

1115 ANE requested SCATANA

1116 DAL1898 confirmed by security HIJACK at CLE ATC - communication with pilot does not confirm

1117 Reconfirm ground stop exceptions include military/USCG/medivac/law enforcement

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~~1118 USCG out of Norfolk reports receiving distress calls from three aircraft (UA 947/COA 57/Air Canada 065)~~

1119 DAL1989 still not suspected to be hijack; taxiing to terminal

1120 TWA315 on ground at RDU

1121 AAL77 according to ZID—no wreckage reported on ground near Ashland

1125 Bill Peacock/Ruth Marlin/Bob Toblin (Nancy Shelton/Benny Lee McGlamery/Doug Murphy all at MSY but not coming on N2) to return from MSY on FAA LR31

1126 COA57 (B777) in Moncton (Canada) ACC's airspace, inbound to EWR

1127 Fighter escorts with N4 going into DCA

1128 JFK: three alleged Middle Eastern persons refuse to debark from UAL23 at Gate 2, Terminal 7

1129 UAL 947/ACA65 no info

1130 NWA51 from Frankfort, Germany—Canada will not allow to land in Canadian airspace—originally inbound for DTW

**Chronology of Events  
September 11, 2001**

- 1131 Southwest of Nashville: G3 with Secretary of the Navy requests permission to land—referred to ATCSCC
- 1132 Army 60180 (PAT 108) enroute from San Juan, PR to West Palm Beach, FL then to ADW (with FAA head of Security—General Cavanaugh)
- 1133 Lt. Col. Mark Bucknell, J-5 (NMCC), will work military restrictions to MED-EVAC aircraft in NY/NJ area
- 1134 UAL947 over BANKS (Fix in the ocean) heading toward Gander, Nova Scotia (worked by Gander ACC)
- 1135 Life Parts (Medivac) flights will be coordinated with Military case-by-case
- 1144 NWA51 on ground in Canada
- 1145 Some controllers working some of the crisis aircraft are traumatized and need relieved
- 1146 All three a/c that USCG reported hearing distress calls are accounted for (all OK)
- 1147 Some controllers in NY area are refusing to report to work (to be ordered to work)
- 1152 COA57 est. 60W at 1515Z and No confirmation on UAL947 from Moncton Proposal only
- 1155 N4 inbound to DCA;
- 1156 F16 intercepted N22CJ intruder a/c 35 NM west of PIT
- 1157 Canada now refusing to allow any a/c to land in Canadian airspace (ATCSCC will try to turn a/c around)
- 
- 1158 NMCC still determining that medevacs, USCG, and law enforcement to be released  
NMCC phone #: 9/11 Agency Internal Matters
- 1201 Monte Belger contacting NAV Canada (Mr. Creighton) regarding ability of Canada to receive divert a/c)
- 1204 NMCC and AF/CC confirms med-evacs released at TEB
- 1205 Asst Dir/FBI: FBI requesting release of Ross 72, Cessna Citation, (Ike Nakamoto) from Manassas to Hilton Head then back with FBI director
- 1206 Nine aircraft over oceanic airspace inbound to US—OK to divert to Canada (confirmed between Monte Belger and Mr. Creighton)
- 1207 AAT, et al, to go from tower to west side of field by Air Cargo (General Aviation Corp) to be picked up by N2
- 1212 800 220 9381 Sat phone at AEA in case commercial phones lost
- 1213 AGL reports UAL809 (B767) on ground at Rockford (UPS area) potential bomb threat
- 1214 AGL reports DAL1889 is deplaning on ground; FBI to search a/c
- 1215 PAT108, with FAA head of Security to be in DC at 17:30 EDT



**Chronology of Events  
September 11, 2001**

- 1216 ZBW back in operation with skeleton crew
- 1222 ATCSCC is moving ATSC into larger room to work on releases of a/c
- 1223 State Police wants to land at TEB
- 1224 N2 taxiing out at DCA (ETA; 1:30 CDT)
- 1227 COA 57 landed in Gander; seven a/c still airborne over oceanic airspace inbound to US—diverting to Canada; UAL 947 returned to Europe
- 1228 Several thousand casualties in NY
- 1229 N2 took off from DCA

Status update: 1203Z: (some speculation) Sirkorsky helicopter N601S from Poughkeepsie (#1 to hit WTC)—at about that time, a primary target, perhaps UAL 175

- AAL11 (2<sup>nd</sup> a/c at WTC—hit south tower)
- UAL175 (3<sup>rd</sup> a/c to hit WTC)
- AAL77 (B757) (hit Pentagon)
- UAL93 (B767) (crashed in PA, west of Camp David)

- 1240 Unidentified MD 88 over Elkens, WV (possible scramble by military) or may be worked by ZOB
- 1245 Military intercepted aircraft and IDed it as military
- 1247 ZNY: N911LV (0476); N116MB (0474); N109UP: Medivacs from ABE to NYC
- 1248 CINCPAC wants to divert 17 flights inbound to HON

- 1253 No number yet available for FAA relocation site
- 1255 TEB will be emergency ops center; Floyd Bennet Field (law enforcement ops center)
- 1256 ATCSCC/ATCSCC working with NORAD for releases
- 1257 SCATANA not in effect; need to reassess capabilities
- 1258 N206NE (0365) helicopter out of Stewart to TEB
- 1302 Contract Tower evacuations being coordinated in AEA and AWP
- 1303 Locking NYC down...most roads closed...
- 1304 USAF/CC at Pentagon ready to help. Col Atkins working.
- 1305 AEA-500 advised that AAL 11 voice tapes on intranet web site; will be taken off and no more data put on web sites
- 1319 All releases currently required to go through NORAD; trying to implement system with bank of codes for medivac releases

**Chronology of Events  
September 11, 2001**

- 1320 KAL085 flight inbound to LAX reports being hijacked through ARINC (confirming with AWP) ZLA reports KAL1 (B747-400) inbound to LAX successfully landed at SFO an hour ago—maybe same a/c
- 1323 KAL017 to LAX (ZOA never worked); trying to confirm; ATCSCC confirms KAL017 diverted Vancouver;
- 1324 AAL11 data removed from intranet
- 1328 All data to be placed on AAT-20 intranet
- 1328 NY Governor in helicopter N8076 (code 5601) from
- 1329 KAL085 confirms with ZAN they are not being hijacked
- 1335 Not a good system to work individual releases
- 1336 State police reported helicopter over nuclear power plant Wilkes Barre
- 1339 PAT108 now due at 3:50pm
- 1340 AWP reports five aircraft refuse to divert; will advise Admiral Blair
- 1341 Colonel Atkins advises Allentown evacs to contact HQ's phone #
- 1342 Alaska region reports unidentified aircraft circling ANC and numerous aircraft circling over ANC who are short on fuel
- 1343 N2 ETE - 0:45 minutes out on ASD
- 
- 1353 AEA will use bank of codes for ABE (0420-0431) and for N90 (5601-5611) and will contact AF/CC relocated at Bolling (202 404 5471)
- 1357 B747, reported by citizens, flying up Hudson (citizen report); F15s refueling over Long Island will take look; later reported that a/c was probably refueler
- 1358 AF1 still displayed on TSD; may have been removed for security reasons
- 1432 Ross 72 released
- 1438 Advisory 41 issued Requests to use NAS will be authorized for military, law enforcement, life guard and med evac flights. (need actual words from Advisory 41)
- 1507 KAL085 reported on the ground at Whitehorse, Canada
- 1504 N2 (2556) airborne due 1630 at DCA
- 1517 AWP reports confirmed bomb found in parking lot #2 at LAX; LAX ATCT evacuating
- 1522 Individual call signs/beacon codes still required for individual releases
- 1523 FBI reports USAirways squawking 7700 from Madrid
- 1526 AWP reports additional explosive devise in old LAX terminal

**Chronology of Events  
September 11, 2001**

From this point forward, all coordination is for individual aircraft movement, ATC system status, issuance of NOTAM's – no specific notes are being kept.

## September 11: Chronology of terror

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September 12, 2001 Posted: 12:27 PM EDT (1627 GMT)

**8:45 a.m. (all times are EDT): A hijacked passenger jet, American Airlines Flight 11, crashes into the north tower of the World Trade Center, tearing a gaping hole in the building and setting it afire.**

9:03 a.m.: A second hijacked airliner, United Airlines Flight 175 from Boston, crashes into the south tower of the World Trade Center and explodes. Both buildings are burning.



9:17 a.m.: The Federal Aviation Administration shuts down all New York City area airports.

9:21 a.m.: The Port Authority of New York and New Jersey orders all bridges and tunnels in the New York area closed.

Plane hi

9:30 a.m.: President Bush, speaking in Sarasota, Florida, says the country has suffered a terrorist attack.

9:40 a.m.: The FAA halts all flight operations at U.S. airports, the first time in U.S. history that traffic nationwide has been halted.

9:43 a.m.: American Airlines Flight 77 crashes into the Pentagon, sending up a huge plume of dust. Evacuation begins immediately.

9:45 a.m.: The White House evacuates.

9:57 a.m.: Bush departs from Florida.

10:05 a.m.: The south tower of the World Trade Center collapses, plummeting into the street. A massive cloud of dust and debris forms and slowly drifts away from the building.

10:08 a.m.: Secret Service agents armed with automatic rifles are deployed into Lafayette Park across from the White House.



10:10 a.m.: A portion of the Pentagon collapses.

10:10 a.m.: United Airlines Flight 93, also hijacked, crashes in Somerset County, Pennsylvania, southeast of Pittsburgh.

Pentagon

10:13 a.m.: The United Nations building evacuates, including 4,700 people from the headquarters building and 7,000 total from UNICEF and U.N. development programs.

10:22 a.m.: In Washington, the State and Justice departments are evacuated, along with the Federal Reserve Bank.

10:24 a.m.: The FAA reports that all inbound transatlantic aircraft flying into the United States are being diverted to Canada.

Date		12-Sep	14-Sep	15-Sep	18-Sep	18-Sep	Sep	Oct	May 2002	May 2003	Feb 2004	Mar 2004
Document		Charlie Fit	Gott	NEADS	Press Rel	Scott	Caine ANG	Testimony	STK Brief	Hearing	1st Rev	2d Rev
Event	Actual											
<b>AA11</b>												
Notification	08:38		08:40	08:40	0840	08:40	08:40	0840		08:40		
Scramble	08:46/09:24		08:46	08:46	0846	08:46	08:46	0846	08:46	08:46		09:24
Airborne	08:52/09:30		08:52	08:52	0852	08:52		0852	08:52	08:52		09:30
Impact	08:47		08:46	08:46	0846	08:46	08:46	0846	08:46	08:46		
<b>UA175</b>												
Notification	0906		08:43	09:05	0843	09:05		0843	08:43	09:05		
Scramble	None		08:46		0846	na						
Impact	09:03		09:02	09:02	0902	09:03	09:02	0902	09:02	09:03		
<b>AA77</b>												
Notification	09:34		09:24	09:24	0924	09:24	09:24	0924	09:24	09:24		09:34
Scramble	None		09:24	09:24	0924			0924	09:24	09:24		
Airborne			09:30	09:30	0930	09:30	09:35	0930	09:30			
Impact	09:38		09:37	09:37	0937	09:43	09:37	0937	09:37	09:43		09:37
<b>UA93</b>												
Notification	1007			09:16/10:07	ma	09:16/10:07	09:16/10:07			09:16/10:07		10:06
Scramble	None					09:24						
Impact	10:03		10:03	10:03	1003	10:03	10:03	1003	10:03	10:03		10:03
<b>D1989</b>												
Notification				09:27/09:41		09:27/09:41	09:27/09:41			09:27		
Landed	10:11			09:47		09:47				09:47		
Canada Flight												
Atlantic Ocean Flight												