

Addendum 1

to FDR Group Chairman Factual Report - 10

DCA96MA070

submitted
September 9, 1998

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Research and Engineering
Washington, D.C. 20594

January 31, 1997

Flight Data Recorder - 10

Addendum to Group Chairman's Factual Report

(Additional Parameters for Flt. 800 and Prior Landing)

by Dennis R. Grossi

A. ACCIDENT

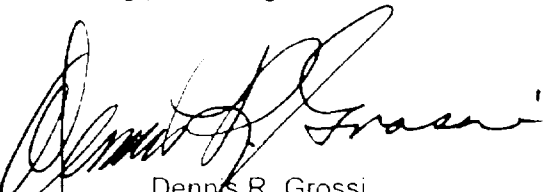
Location: East Moriches, N.Y.
Date: July 17, 1996
Time: 2031 local standard time
Aircraft: Trans World Airlines (TWA) Flt. 800, B-747-131, N93119
NTSB Number: DCA96MA070

B. SUMMARY

On July 17, 1996, about 2031 eastern daylight time, a Boeing 747-131, N93119, operated as Trans World Airlines Flight 800 (TWA800), crashed into the Atlantic Ocean, about 8 miles south of East Moriches, New York, after taking off from John F. Kennedy International Airport (JFK), Jamaica, New York. All 230 people aboard the airplane were killed. The airplane, which was operated under Title 14 Code of Federal Regulations (CFR) Part 121, was bound for Charles De Gaulle International Airport (CDG), Paris France. The flight data recorder (FDR) and cockpit voice recorder (CVR) ended simultaneously, about 13 minutes after takeoff.

The FDR, a Sundstrand Model UFDR (s/n 6707), was recovered from the Atlantic Ocean on July 24, 1996, and transported to the Safety Board's FDR Laboratory in the custody of the Federal Bureau of Investigation (FBI). The FDR arrived at the Safety Board's Laboratory at approximately 3:00 AM, on July 25, 1996. The damaged recorder was disassembled and the magnetic tape recording medium removed for playback. The initial readout of the recorded data was performed on July 25, 1996.

The DFDR Factual Report did not contain all of the data recorded during flight 800, nor any data for the prior landing. The attached tabular listings contain the parameters recorded during flight 800 and not listed in the DFDR Factual Report, and the DFDR data recorded during the landing at JFK. DFDR elapse time was used as the time base for data recorded during the landing prior to flight 800.


Dennis R. Grossi
National Resource Specialist Flight Data Recorders

TWA Flt. 800

B747-131, Takeoff to End of Data
Tabular Data No. 2, Date Printed: January 10, 1997

National Transportation Safety Board

TWA Flt 800, B747-131, Takeoff to End of Data
 Tabular Data No. 2, Date Printed: January 10, 1997, National Transportation Safety Board

LOCAL TIME (UTC)	ALTC (FEET)	Elevator Position (deg)	Rudder Position (deg)	Airion Position (deg)	Flap Pos (Inbd)	Flap Pos (Trailing)	Flap Pos (OATRO)	Leading Edge Lt. Set 1 (discrete)	Leading Edge Lt. Set 2 (discrete)	Leading Edge Lt. Set 3 (discrete)	Leading Edge Lt. Set 4 (discrete)	Leading Edge Rt. Set 1 (discrete)	Leading Edge Rt. Set 2 (discrete)	Leading Edge Rt. Set 3 (discrete)	Leading Edge Rt. Set 4 (discrete)	Reverser Eng 1 (1-T/R)	Reverser Eng 2 (1-T/R)	Reverser Eng 3 (1-T/R)	Reverser Eng 4 (1-T/R)
20:19:07	2615	7.9	4.9	2.6	10.9	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:08	2700	7.7	7.2	2.6	10.9	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:09	2815	8.6	4.0	2.6	10.9	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:09	2700	6.6	2.0	2.6	10.9	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:10	2835	7.8	5.9	3.0	10.8	9.9	9.9	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:11	2835	8.3	6.9	3.0	10.8	9.9	9.9	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:11	2835	8.1	6.1	3.7	10.9	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:12	2835	6.5	2.4	3.7	10.9	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:13	2835	9.2	0.5	13.0	10.8	9.9	9.9	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:13	2835	8.8	1.9	7.7	10.9	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:14	2835	8.2	5.6	3.7	10.9	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:14	2800	7.2	3.7	3.7	10.8	9.9	9.9	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:15	2700	7.1	7.7	6.9	10.7	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:15	2700	7.6	0.7	8.3	10.8	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:16	2700	8.5	10.9	8.5	10.9	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:17	2700	7.5	2.5	7.9	10.7	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:18	2700	7.7	3.3	7.9	10.8	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:19	2700	7.5	8.1	8.1	10.9	9.9	9.9	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:19	2700	7.2	1.7	10.1	10.7	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:20	2700	7.8	1.8	16.4	10.9	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:21	2700	7.1	3.8	13.5	10.9	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:22	2700	7.0	4.1	12.0	10.9	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:23	2700	7.3	1.7	16.2	10.8	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:24	2700	7.5	1.5	16.2	10.7	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:25	2700	6.7	3.1	14.4	10.7	9.9	9.9	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:26	2700	6.1	4.3	11.2	10.6	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:27	2700	5.8	9.7	17.3	10.8	9.9	9.9	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:28	2700	5.1	2.9	17.0	10.9	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:29	2700	4.6	1.2	18.0	10.7	9.9	9.9	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:30	2700	4.6	1.1	18.5	10.7	9.9	9.9	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:31	2700	4.4	3.4	18.3	10.8	9.9	9.9	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:32	2700	4.5	1.3	18.3	10.7	9.9	9.9	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:33	2700	4.7	9.2	19.2	10.9	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:34	2700	3.7	3.6	15.4	10.7	9.9	9.9	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:35	2700	3.2	2.2	15.2	10.8	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:36	2700	2.4	3.1	16.7	10.8	9.9	9.9	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:37	2700	3.0	1.1	16.6	10.7	9.9	9.9	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:38	2700	2.4	1.7	15.1	10.8	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
20:19:39	2700	2.4	1.7	15.1	10.8	10.0	10.0	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT

TWA Flt 800, B747-131, Takeoff to End of Data
 Tabular Data No. 2, Date Printed: January 10, 1997 National Transportation Safety Board

LOCAL TIME (UTC)	ALT (FEET)	Elevator Position (degrees)	Rudder Position (degrees)	Aileron Position (degrees)	Flap Pos Trailing (degrees)	Flap Pos Trailing (degrees)	Flap Pos Trailing (degrees)	Leading Edge Lt Set 1 (discrete)	Leading Edge Lt Set 2 (discrete)	Leading Edge Lt Set 3 (discrete)	Leading Edge Lt Set 4 (discrete)	Leading Edge Rt Set 1 (discrete)	Leading Edge Rt Set 2 (discrete)	Leading Edge Rt Set 3 (discrete)	Leading Edge Rt Set 4 (discrete)	Reverser Eng 1 (L-T/R)	Reverser Eng 2 (L-T/R)	Reverser Eng 3 (L-T/R)	Reverser Eng 4 (L-T/R)
20:21:44	11745	0.1	0.9	-9.3	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:21:45	11475	0.0	-1.0	4.3	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:21:46	10800	0.0	-1.1	-12.0	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:21:47	10525	0.0	0.0	11.8	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:21:48	9950	0.0	0.0	-5.3	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:21:49	9770	0.4	1.1	3.0	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:21:50	8370	0.5	1.0	10.7	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:21:51	8555	0.2	0.5	9.3	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:21:52	8370	0.3	0.9	10.7	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:21:53	7965	0.3	0.9	10.3	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:21:54	7500	0.2	0.9	11.4	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:21:55	6885	0.0	0.0	13.4	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:21:56	6425	0.0	0.0	13.4	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:21:57	5840	0.0	0.0	13.4	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:21:58	5575	0.0	0.0	13.4	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:21:59	5120	0.0	0.0	13.4	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:22:00	4330	0.0	0.0	13.4	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:22:01	3615	0.0	0.0	13.4	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:22:02	3240	0.0	0.0	13.4	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:22:03	2870	0.0	0.0	13.4	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:22:04	2500	0.0	0.0	13.4	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:22:05	2130	0.0	0.0	13.4	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:22:06	1760	0.0	0.0	13.4	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:22:07	1390	0.0	0.0	13.4	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:22:08	1020	0.0	0.0	13.4	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:22:09	645	0.0	0.0	13.4	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW
20:22:10	270	0.0	0.0	13.4	0.0	0.0	0.0	Trans	Ext	Ext	Trans	Trans	Ext	Trans	Trans	STOW	STOW	STOW	STOW

TWA Flt. 800, B747-131, Takeoff to End of Data
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TIME (UTC)	ALT (feet)	Elevator Position (degrees)	Roller Position (degrees)	Airion Position (degrees)	Flap Pos Trailing (degrees)	Flap Pos Trailing (degrees)	Leading Edge Lt. Set 1 (discrete)	Leading Edge Lt. Set 2 (discrete)	Leading Edge Lt. Set 3 (discrete)	Leading Edge Lt. Set 4 (discrete)	Leading Edge Rt. Set 1 (discrete)	Leading Edge Rt. Set 2 (discrete)	Leading Edge Rt. Set 3 (discrete)	Leading Edge Rt. Set 4 (discrete)	Reverser Eng 1 (1-T/R)	Reverser Eng 2 (1-T/R)	Reverser Eng 3 (1-T/R)	Reverser Eng 4 (1-T/R)
20:23:25	15855	0.5	-0.9	9.3	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
	14965	0.4	0.9	6.5	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:04	14715	0.3	-0.9	-11.4	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:05	14445	0.2	0.9	10.3	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
	14175	0.1	-0.9	-9.7	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:06	13905	0.2	0.9	8.7	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:07	13560	0.2	-0.9	-10.3	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
	13285	0.4	0.9	8.7	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:08	12950	0.2	-1.3	-9.1	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:09	12785	0.4	1.1	-8.7	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
	12620	0.3	-1.1	2.2	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:10	11070	0.3	1.0	16.0	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:11	10510	0.3	-1.1	-15.6	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
	9855	0.4	1.1	-16.0	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:12	9180	0.4	-1.1	10.3	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:13	8035	0.5	0.9	9.3	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
	7425	0.4	-0.8	-20.1	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:14	5485	0.4	0.7	9.7	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:15	4535	0.3	-0.8	8.7	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:16	3745	0.4	0.9	9.1	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:17	2665	0.4	-0.9	9.7	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
	1485	0.5	0.9	9.7	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:18	170	0.5	-0.9	9.3	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:19	170	0.5	0.9	9.3	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:20	785	0.4	-0.9	15.0	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:21	730	0.4	0.9	3.0	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
	430	0.5	-0.8	0.0	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:22	540	0.3	0.7	2.3	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
	510	0.3	-0.7	2.3	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:23	5015	0.3	0.7	3.7	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
	3725	0.3	-0.7	3.7	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:24	1970	0.2	0.7	3.9	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
	1615	0.2	-0.7	2.6	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:25	1415	0.2	0.8	16.5	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:26	935	0.2	-0.8	-2.9	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
	835	0.2	0.8	2.9	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:27	875	0.1	0.8	10.3	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:23:28	1065	0.1	-0.8	-11.4	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
	1065	0.1	0.8	11.4	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW

TWA Flt 800, B747-131, Takeoff to End of Data
 Tabular Data No. 2, Date Printed: January 10, 1997, National Transportation Safety Board

LOCAL Time SVR	ALC (FEET) (degrees)	Yaw Position Left (degrees)	Roll Position Down (degrees)	Altitude Position Above (feet)	Flap pos Trailing Inbd (degrees)	Flap pos Trailing Outbd (degrees)	Leading Edge Lt. Set 1 (discrete)	Leading Edge Lt. Set 2 (discrete)	Leading Edge Lt. Set 3 (discrete)	Leading Edge Lt. Set 4 (discrete)	Leading Edge Rt. Set 1 (discrete)	Leading Edge Rt. Set 2 (discrete)	Leading Edge Rt. Set 3 (discrete)	Leading Edge Rt. Set 4 (discrete)	Reverse Eng 1 (1-7/R)	Reverse Eng 2 (1-7/R)	Reverse Eng 3 (1-7/R)	Reverse Eng 4 (1-7/R)
20 25 19	17822	0.2	0.9	18.6	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 20	17823	0.3	0.9	17.4	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 21	17824	0.2	0.9	15.0	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 22	17825	0.3	0.9	17.0	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 23	17826	0.4	0.9	18.9	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 24	17827	0.4	0.9	15.6	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 25	17828	0.3	0.9	18.5	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 26	17829	0.4	0.9	18.9	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 27	17830	0.5	0.9	17.4	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 28	17831	0.2	0.9	1.6	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 29	17832	0.3	0.9	3.0	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 30	17833	0.3	0.9	1.0	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 31	17834	0.4	0.9	2.5	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 32	17835	0.2	0.9	7.5	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 33	17836	0.3	0.9	6.5	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 34	17837	0.2	0.9	0.4	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 35	17838	0.1	0.9	103.3	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 36	17839	0.4	0.9	18.5	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 37	17840	0.3	0.9	0.5	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 38	17841	0.2	0.9	0.3	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 39	17842	0.3	0.9	10.1	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 40	17843	0.2	0.9	0.5	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 41	17844	0.3	0.9	0.5	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 42	17845	0.3	0.9	0.5	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 43	17846	0.3	0.9	0.5	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 44	17847	0.3	0.9	0.5	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 45	17848	0.3	0.9	0.5	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 46	17849	0.3	0.9	0.5	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 47	17850	0.3	0.9	0.5	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 48	17851	0.3	0.9	0.5	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 49	17852	0.3	0.9	0.5	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract
20 25 50	17853	0.3	0.9	0.5	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract

TWA Fit 800 B747-131, Takeoff to End of Data
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Time (hr)	Alt (FEET)	Picometer Reading (degrees)	Header Position (degrees)	Alt Position (degrees)	Trac pos Trailing Inch (degrees)	Trac pos Trailing (inches)	Leading Edge Lt. Scope Rt. (discrete)	Leading Edge Lt. Scope Rt. (discrete)	Leading Edge Lt. Scope Rt. (discrete)	Leading Edge Lt. Scope Rt. (discrete)	Leading Edge Lt. Scope Rt. (discrete)	Leading Edge Lt. Scope Rt. (discrete)	Reverser Eng 1 (1-T/R)	Reverser Eng 2 (1-T/R)	Reverser Eng 3 (1-T/R)	Reverser Eng 4 (1-T/R)
20 25 40	12955	0 2	0 5	-10 3	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 25 41	12955	0 2	-0 9	-17 2	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 25 42	12015	0 3	-0 9	-27 5	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 25 43	11745	0 2	-0 5	-17 4	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 25 44	11070	0 2	0 5	-16 4	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 25 45	10530	0 3	0 5	17 0	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 25 46	9985	0 2	0 5	-0 5	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 25 47	9415	0 3	0 5	17 4	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 25 48	8810	0 3	0 5	-19 5	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 25 49	8165	0 3	0 5	-19 0	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 25 50	7530	0 3	0 9	-29 0	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 25 51	6815	0 3	0 8	-19 0	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 25 52	6125	0 3	0 8	-19 5	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 25 53	5405	0 3	1 8	25 0	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 25 54	4665	0 3	0 9	13 4	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 25 55	3925	0 3	1 0	7 9	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 25 56	3185	0 3	1 0	-17 2	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 25 57	2445	0 3	0 9	-7 0	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 25 58	1705	0 3	0 9	25 6	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 25 59	965	0 3	0 9	17 4	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 26 00	205	0 3	0 9	24 4	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 26 01	1305	0 3	0 9	15 5	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 26 02	565	0 3	0 9	17 0	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 26 03	105	0 3	0 9	17 0	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 26 04	1305	0 3	0 9	15 5	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 26 05	1805	0 3	0 9	18 0	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 26 06	2565	0 3	0 9	16 5	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 26 07	3325	0 3	0 9	5 7	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 26 08	4085	0 3	0 9	12 0	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 26 09	4845	0 3	0 9	17 4	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20 26 10	5605	0 3	0 9	16 5	0 0	0 0	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW

TWA Flt. 800, B747-131, Takeoff to End of Data
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TIME (REF.) CYR	ALTC (FEET)	Elevation Left (degrees)	Heading Position (degrees)	Altitude at load (degrees)	Flap pos Trailing Job (degrees)	Flap pos Trailing (degrees)	Flap pos Trailing (degrees)	Leading Edge Lt. Set 1 (discrete)	Leading Edge Lt. Set 2 (discrete)	Leading Edge Lt. Set 3 (discrete)	Leading Edge Lt. Set 4 (discrete)	Leading Edge Lt. Set 1 (discrete)	Leading Edge Lt. Set 2 (discrete)	Leading Edge Lt. Set 3 (discrete)	Leading Edge Lt. Set 4 (discrete)	Reverser Eng 1 (1-7/R)	Reverser Eng 2 (1-7/R)	Reverser Eng 3 (1-7/R)	Reverser Eng 4 (1-7/R)
20:30:56	16695 16740	0.3 0.5	-0.8 -0.7	5.9 -19.5	0.0 0.0	0.0 0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:30:57	17010	0.4	-0.7	-10.3	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:30:58	17145 16605	0.5 0.4	-0.7 -0.7	-19.5 -18.5	0.0 0.0	0.0 0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:30:59	17550	0.3	0.7	-23.7	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:31:00	17695 17820	0.4 0.4	-0.8 -0.9	-17.2 -19.9	0.0 0.0	0.0 0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:31:01	18090	0.3	-0.8	-23.1	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:31:02	18225 18360	0.3 0.2	0.9 -0.7	18.5 -19.5	0.0 0.0	0.0 0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:31:03	17550	0.4	-0.7	-3.7	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:31:04	18495 18630	0.2 0.2	-0.8 -0.8	4.9 11.0	0.0 0.0	0.0 0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:31:05	18765	0.0	-0.8	13.0	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:31:06	18765 18900	0.0 0.2	-0.8 -0.8	-19.3 -18.5	0.0 0.0	0.0 0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:31:07	18900	0.4	-0.8	-18.0	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:31:08	19035 19635	0.4 0.4	-0.8 -0.8	7.5 -18.8	0.0 0.0	0.0 0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:31:09	19655	0.2	0.9	-5.3	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:31:10	19170 19170	0.2 0.4	0.8 0.8	0.0	0.0 0.0	0.0 0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:31:11	19170	0.2	-0.8	17.8	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW
20:31:12				-24.1	0.0	0.0	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	Retract	STOW	STOW	STOW	STOW

TWA Flt. 800

B747-131, Landing At JFK
TABJFK1, Created: January 31, 1997

National Transportation Safety Board

FDR Lapse Time (sec)	HSI Alt (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Kuuder Position (upper) (degrees)	Angle of Attack (degrees)	EMR Engine 1 (ratio)	EMR Engine 2 (ratio)	EMR Engine 3 (ratio)	EMR Engine 4 (ratio)	Long Accel (g)	Vert Accel (g)	VR	Pitch Trim Pos (degrees)	Stat Pos (degrees)
0.0	612.00 632.00	140	1.4 1.8	-5.3 0.0	308 306	-1 -1	0.18 0.00 0.09 0.18	7 7 7	1.02 1.04	1.04	1.04	1.07	0.05 0.05 0.05 0.05	0.98 0.98 0.99 1.00	Off		7 6
1.0	622.00 140	141	1.8	0.0	306	-1	0.18 0.27	7 7	1.02 1.02	1.04	1.04	1.07	0.05 0.05 0.05 0.05	0.98 0.98 1.01 1.01	Off Off		6
2.0	617.00 627.00	141	2.2 2.5	0.1 0.0	306 306	-2 -2	0.27 0.36 0.54	7 7 7	1.02	1.04	1.03	1.07	0.05 0.05 0.05 0.05	0.98 1.04 1.04 1.04	Off		6 6
3.0	662.00	141 142	2.9	0.0	305	-2	0.54 0.45 0.36	7 7	1.02 1.03	1.04	1.04	1.07	0.05 0.05 0.05 0.05	0.98 1.05 1.05	Off Off		6
4.0	552.00 527.00	142	2.9 2.5	-1.5 1.7	305 305	-3 -2	0.54 0.63 0.90	7 7 7	1.04	1.05	1.05	1.08	0.07 0.07 0.07 0.06	1.06 1.06 1.06 1.04	Off		6 6
5.0	577.00	134 141	2.5	-1.6	305	-3	0.99	7	1.04	1.05	1.05	1.09	0.07	1.02	Off		6
6.0	572.00 567.00	141	2.5 2.2	1.0 0.4	305 305	-2 -2	0.99 1.08 1.08	7 7 7	1.04	1.05	1.05	1.09	0.06 0.06 0.06 0.06	0.98 0.97 0.98 0.98	Off		6 6
7.0	557.00	141 141	2.5	-0.5	305	-1	1.08 1.08 0.99	7 7 7	1.04	1.05	1.05	1.08	0.05 0.05 0.05 0.05	0.98 0.98 0.99 1.01	Off Off		7
8.0	552.00 547.00	142	2.5 2.2	-1.5 2.1	305 305	-1 -1	0.72 0.54 0.72	7 7 7	1.04	1.05	1.05	1.09	0.06 0.06 0.06 0.06	1.02 1.02 1.03 1.02	Off		6
9.0	537.00	142 134	2.2	-2.2	305	-1	0.72 0.72 0.72	7 7 6	1.04 1.04	1.05	1.05	1.09	0.06 0.06 0.06 0.06	1.02 1.01 1.00 0.99	Off Off		6 6
10.0	527.00 522.00	142	1.8 1.4	-2.1 -1.7	305 305	-1 0	0.90 0.90 0.99	6 6 6	1.04	1.05	1.05	1.09	0.06 0.06 0.05	0.98 0.98 0.98	Off		6
11.0	517.00	142 147	1.1	-1.3	305	0	1.08 1.08 1.08	6 6 6	1.04 1.04	1.05	1.05	1.08	0.05 0.05 0.05 0.05	0.97 0.97 0.97 0.98	Off Off		6 6
12.0	507.00 497.00	142	1.1	36.9 -0.8	305 305	0	0.90 0.90 0.72	6 6 6	1.04	1.05	1.05	1.08	0.05 0.05 0.05 0.05	0.98 0.98 0.98 0.98	Off		6
13.0	487.00	142 142	1.1	-0.3	305	0	0.72 0.81 0.90	6 6 6	1.04 1.04	1.05	1.05	1.08	0.05 0.05 0.05 0.05	0.98 0.98 0.98 0.99	Off Off		6 6
14.0	477.00 467.00	136	1.4 1.4	0.4	305 305	0 1	1.08 1.08 0.99	7 7 7	1.04	1.05	1.05	1.08	0.06 0.06 0.06 0.06	1.00 1.03 1.03 1.03	Off		6
15.0	457.00	143 144	1.8	0.5 -0.4	305	1	0.99 0.90 0.90	7 7 7	1.04 1.04	1.05	1.05	1.08	0.06 0.06 0.06 0.06	1.03 1.04 1.03 1.03	Off Off		6 6
16.0	442.00 437.00	143	2.2 2.2	-0.3	305 305	1 1	0.72 0.54 0.54	7 7 6	1.04	1.05	1.05	1.08	0.06 0.06 0.06 0.06	1.02 1.02 1.03 1.04	Off		6
17.0	432.00	144 142	2.2	-0.7 -1.3	305	0	0.36 0.27 0.18	6 7 7	1.04 1.04	1.05	1.05	1.08	0.05 0.05 0.05	1.03 1.02 1.02	Off Off		6 6
18.0	422.00 412.00	142	2.2	1.3	305 305	0	0.27 0.36 0.45	7 8 7	1.04	1.05	1.04	1.08	0.05 0.05 0.07 0.07	1.01 1.00 1.02 1.03	Off		6
19.0	402.00	134 141	2.2 2.2	-1.6 -2.1	305	0 1	0.45 0.54 0.54	7 7 7	1.04 1.04	1.05	1.05	1.08	0.07 0.07 0.06	1.04 1.07 1.05	Off Off		6 6
20.0	392.00 387.00	142	1.4	-2.1	306	1	0.54 0.54 0.54	7 7 6	1.04	1.05	1.05	1.08	0.05 0.04 0.04 0.05	1.00 0.99 0.98 0.98	Off		6
21.0	377.00	142 144	1.1 0.7	-1.5 -0.4	306 306	1 1	0.54 0.54 0.54	6 6 6	1.04 1.04	1.05	1.04	1.08	0.05 0.05 0.05	0.97 0.98 0.98	Off Off		6 6
22.0	367.00	144	0.7	0.0	306	0	0.54 0.54 0.54	6 6 7	1.03	1.04	1.04	1.08	0.05 0.05 0.05	0.98 1.00 1.00	Off		6
23.0	357.00 352.00	144 136	1.4 1.4	0.0 1.3	306 306	0	0.54 0.72 0.81	7 7 7	1.03 1.03	1.04	1.04	1.08	0.06 0.06 0.06	1.04 1.05 1.05	Off Off		7 7
24.0	342.00	144	1.8	-1.0	306	-1	0.72 0.63 0.90	6 6 6	1.03	1.04	1.04	1.08	0.06 0.06 0.06	1.03 1.03 1.03	Off		6

PR Lapse Time (sec.)	IAS ALT (FEET)	TAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	PR Engine 1 (ratio)	PR Engine 2 (ratio)	PR Engine 3 (ratio)	PR Engine 4 (ratio)	Long Accel (g)	Vert. Accel (g)	Vib	Pitch Rate Stab Pos (degrees)
25.0	332.00 327.00	144 144	1.8 1.8	-1.0 -1.4	306 306	0 0	0.99 1.26 1.26	6 6 6	1.03 1.03 1.03	1.04 1.04 1.04	1.04 1.04 1.04	1.08 1.08 1.08	0.05 1.03 0.05 1.02 0.05 1.01 0.05 1.01	1.03 0.98 1.02 1.01	Off Off	7 7
26.0	317.00	144	1.8	-1.3	306	0	1.26 1.35	6 6	1.03	1.04	1.04	1.08	0.05 1.00 0.05 1.00	1.00 0.98 1.00	Off	7
27.0	307.00 302.00	144 144	1.4 1.4	-1.5 0.5	306 306	0 0	1.17 1.08 0.81 0.81	6 6 6 6	1.03 1.03 1.03	1.04 1.04 1.03	1.04 1.08	1.08 1.08	0.05 0.98 0.05 0.99 0.05 0.99 0.05 0.98 0.04 0.98	1.03 0.98 1.04 0.99 0.99 0.98	Off Off	7 6
28.0	292.00	142	1.4	0.0	306	0	0.63 0.36	6	1.03	1.04	1.03	1.08	0.05 1.00 0.05 0.98	0.98 0.99 1.00	Off	7
29.0	282.00 272.00	142 142	1.8 2.5	0.0 -0.3	306 306	-1 -2	0.00 0.00 0.00	7 7 7	1.03 1.03	1.04 1.04	1.03 1.03	1.08 1.08	0.05 1.03 0.05 1.04 0.06 1.05 0.06 1.07 0.06 1.08	1.03 1.04 1.03 1.04 1.05 1.07 1.07	Off Off	7 7
30.0	262.00	142	2.9	-1.3	306	-2	0.18 0.18	8 8	1.03	1.04	1.03	1.07	0.08 1.11 0.08 1.12 0.07	1.11 1.12 1.11 1.13 1.13	Off	7
31.0	252.00 247.00	146 144	3.2 2.9	-2.5 -3.1	306 306	-3 -2	0.09 0.27 0.72 0.54	9 8 8 6	1.03 1.03	1.04 1.04	1.03 1.03	1.07 1.07	0.08 1.11 0.07 1.13 0.07 1.13	1.11 1.11 1.13 1.13	Off Off	7 7
32.0	247.00	144	2.2	-3.3	306	-1	1.17 1.53	6 6	1.03	1.04	1.03	1.07	0.05 1.08 0.04 0.98 0.04 0.94	1.01 0.98 0.98	Off	7
33.0	242.00 222.00	144 143	1.4 1.8	-0.4 -0.2	306 309	0 0	2.07 2.07 2.07	5 6 6	1.03 1.03	1.04 1.04	1.03 1.03	1.07 1.07	0.04 0.94 0.04 0.94 0.04 0.95 0.04 0.96	0.94 0.93 0.95 0.96	Off Off	7 7
34.0	222.00	142	1.8	-0.2	306	0	1.44 0.72	6 6	1.03	1.04	1.03	1.07	0.04 0.98 0.04 0.98 0.05 0.99 0.05 1.00 0.05 1.00	0.98 0.98 0.99 1.00	Off	7
35.0	222.00 212.00	142 143	2.2 2.5	-0.2 -2.2	306 306	-1 -1	0.00 0.00	7 6	1.03 1.03	1.04 1.04	1.03 1.03	1.06 1.07	0.05 1.03 0.05 1.03	1.00 1.03	Off	7 7
36.0	202.00	144	2.5	-2.4	306	-1	0.18 0.36 0.27 0.18	8 6 6	1.03	1.04	1.03	1.07	0.06 1.05 0.06 1.05 0.05 1.03 0.05 0.99 0.04 0.97 0.04 0.98	1.05 1.04 1.05 1.04 1.03 0.99 0.98	Off Off	7 7
37.0	197.00 192.00	142 142	2.2 1.8	-1.6 -0.5	306 306	-1 0	0.54 0.90 1.08 1.08	7 7 6 5	1.03 1.03	1.03 1.04	1.03 1.03	1.07 1.07	0.04 0.95 0.04 0.95 0.04 0.95 0.04 0.95 0.04 0.95	0.98 0.95 0.95 0.98 0.98 0.95	Off Off	7 7
38.0	172.00	142 142	1.8	-1.1	309	-1	0.90 0.54	7 8	1.03	1.03	1.03	1.07	0.04 0.97 0.05 0.98 0.05 0.99 0.05 1.02	0.97 0.98 0.98 0.99	Off Off	7 7
39.0	172.00 162.00	144 142	1.8 1.8	0.5 0.0	306 306	-1 -1	0.18 0.54 0.54 0.72	6 6 7 7	1.03 1.03	1.03 1.03	1.03 1.03	1.07 1.07	0.06 1.03 0.05 1.02 0.05 1.03 0.05 1.02 0.05 1.02	1.03 1.02 1.03 1.02 1.03 1.02	Off Off	7 7
40.0	162.00	142 142	2.2	-1.5	306	-1	0.81 0.72	6 6	1.02	1.03	1.03	1.07	0.05 1.03 0.05 1.03 0.05 1.04 0.05 1.02	1.03 1.03 1.04 1.02	Off Off	7 7
41.0	152.00 142.00	142	2.2 2.2	-1.5 -0.2	306 306	-1 0	1.26 1.53 1.71 1.71	6 6 6 6	1.02	1.03	1.02	1.07	0.04 0.95 0.04 0.95 0.04 0.98 0.04 0.98 0.05 0.99 0.04 0.98	0.95 0.98 0.98 0.98 0.99 0.98	Off Off	7 7
42.0	137.00	142 140	2.2	-0.3	305	0	1.08 0.72	7 7	1.02	1.03	1.02	1.07	0.05 1.01 0.05 1.01 0.05 1.01 0.05 1.01	1.01 1.01 1.02 1.01	Off Off	7 7
43.0	122.00 117.00	140	2.5 2.5	0.0 -0.8	308 305	0 1	0.63 0.72 0.54 0.18	8 7 7	1.02	1.03	1.02	1.07	0.05 1.01 0.05 1.01 0.06 1.06 0.06 1.06 0.05 1.02	1.01 1.02 1.02 1.02	Off	7 7
44.0	107.00	142 140	2.5	0.4	305	-1	0.00 0.09	7 7	1.02	1.03	1.02	1.07	0.05 1.01 0.05 1.01 0.05 1.01	1.02 1.01 1.02 1.01	Off Off	7 7
45.0	102.00 92.00	142	2.5 2.9	0.9 1.1	305 305	1 1	0.45 0.54 0.63	7 7 7	1.02	1.03	1.02	1.07	0.05 1.01 0.06 1.04 0.06 1.04 0.06 1.05 0.06 1.05	1.02 1.04 1.04 1.04 1.05 1.04	Off	7
46.0	87.00	140 140	2.9	0.0	305	1	0.72 0.54 0.72	7 7 7	1.02	1.03	1.02	1.07	0.06 1.04 0.06 1.04 0.06 1.05 0.06 1.05	1.04 1.04 1.04 1.04 1.05 1.04	Off Off	7 7
47.0	77.00 72.00	140	2.9 2.9	0.0 0.6	305 308	0 -1	1.26 1.08 0.45	8 7 7	1.02	1.03	1.02	1.07	0.06 1.06 0.07 1.02 0.06 1.02	1.04 1.04 1.02 1.02	Off	7
48.0	62.00	138 142	2.9	2.5	305	1	0.54 1.17 1.53	7 8	1.02	1.03	1.02	1.07	0.05 1.01 0.06 1.01 0.06 1.01	1.01 1.01 1.01 1.01	Off Off	7 7
49.0	57.00 52.00	140	3.2 3.6	2.2 4.1	305 306	0 1	1.62 1.53	7 7	1.02	1.03	1.03	1.07	0.05 1.01 0.06 1.01	1.01 1.01	Off	7 7

PR Lapse Time (sec.)	MSL A/E (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag Heading (degrees)	Roll Angle (degrees)	Ludder Position (upper) (degrees)	Angle of Attack (degrees)	PR Engine 1 (ratio)	PR Engine 2 (ratio)	PR Engine 3 (ratio)	PR Engine 4 (ratio)	Long Accel (g)	Vert Accel (g)	PR Pos (degrees)	Pitch Trim Stab Pos (degrees)
50.0	47.00	139 138	3.6	2.0	306	1	2.52 2.61 4.32 7.92	7 7 7 7	1.02 1.02	1.03 1.03	1.03 1.02	1.07 1.07	0.36 0.36 0.07 0.09 0.07 0.06	1.04 1.04 1.05 1.06 1.06 1.04	Off Off	7 7
51.0	42.00	134	4.0	6.3	307	1	9.27 6.75 -0.63	7 8 8	1.02 1.03	1.03 1.03	1.03 1.02	1.02 1.02	0.07 0.06 0.08 0.09 0.06	1.01 1.01 1.02 1.02 1.04	Off	7
52.0	37.00	136 134	5.0	4.6	311	0	-1.53 0.18 0.99	7 8 6	1.02 1.02	1.03 1.03	1.03 1.03	1.02 1.02	0.09 0.09 0.09 0.09	1.04 1.04 1.08 1.09 1.05	Off Off	7 7
53.0	37.00 32.00	134	5.0 5.0	7.1 6.5	305 309	-1 -1	0.90 0.72 0.72	7 6 6	1.00 1.01	1.01 1.01	1.01 1.01	1.04 1.04	0.03 0.03 0.07 0.07	1.03 1.03 1.03 1.03	Off	7
54.0	27.00	132 133	5.4	3.6	309	-1	0.90 1.35 1.35	7 7 7	1.00 1.01	1.01 1.01	1.01 1.01	1.03 1.03	0.06 0.06 0.06 0.06	1.05 1.03 1.03 1.03	Off Off	7 7
55.0	27.00 22.00	132	5.4 5.0	6.5 4.9	309 308	-1 -1	1.17 1.17 1.26	7 8 7	1.00 1.01	1.01 1.01	1.01 1.01	1.03 1.03	0.06 0.06 0.05 0.06	1.04 1.04 1.02 1.04	Off	7
56.0	22.00	132 133	4.7	5.0	307	-1	1.17 0.81 0.54	7 7 7	1.00 1.00	1.01 1.01	1.01 1.01	1.03 1.03	0.04 0.04 0.04	1.03 1.03 1.03	Off Off	7 7
57.0	22.00 27.00	124	4.3 4.3	5.6	307 307	0 1	4.43 5.49 5.40	7 6 6	1.01 1.01	1.01 1.01	1.01 1.01	1.03 1.03	0.05 0.04 0.03 0.00 0.01	1.06 1.00 1.00 1.00 0.99	Off	7
58.0	22.00	128 129	4.3	5.3 5.1	307	3	6.21 7.65 7.83	6 6 5	1.01 1.00	1.01 1.01	1.01 1.01	1.02 1.02	0.00 0.00 0.00	1.06 1.06 1.13	Off Off	7 7
59.0	27.00 27.00	124	4.3 4.7	0.4	308 309	3 4	7.83 7.20 2.70	5 6 6	1.00 1.01	1.01 1.01	1.01 1.01	1.02 1.02	0.00 0.02 0.01 0.01	1.05 1.06 1.06 1.06	Off	7
60.0	27.00	124	4.3	-0.8	310	4	2.88 3.60 6.93	7 6 7	1.01 1.01	1.01 1.02	1.01 1.01	1.05 1.05	0.01 0.01 -0.02	0.97 0.97 0.95	Off Off	7 7
61.0	22.00 22.00	124	4.3	4.3	310 310	2	6.93 11.07 11.97	6 5 5	1.01 1.03	1.03 1.03	1.03 1.03	1.06 1.06	0.02 0.00 0.01 0.01	1.08 1.08 1.09 1.04	Off	7
62.0	22.00	118 120	5.0 5.0	2.3 4.4	311	0 -1	10.80 4.50 6.66	8 7 7	1.02 1.07	1.03 1.03	1.03 1.03	1.07 1.11	0.07 0.07 0.06 0.07	1.00 1.01 1.00 1.00	Off Off	7 7
63.0	22.00 22.00	120	5.0	6.8	311	-1	12.69 14.94 12.60	5 7 5	1.15 1.04	1.04 1.01	1.01 1.01	1.17 1.17	0.06 0.07 0.07	1.03 1.00 1.01	Off	7
64.0	22.00	110 112	5.0 5.4	7.4 3.2	311 313	-2 -2	13.95 7.38 3.60	5 5 6	1.19 1.23	1.04 1.04	1.01 1.01	1.22 1.25	0.07 0.07 0.06 0.04	1.01 1.06 1.05 0.99	Off Off	7 7
65.0	17.00	110	5.0	9.2	312	-1	2.52 5.04 6.12	6 5 6	1.24 1.05	1.05 1.01	1.01 1.01	1.25 1.25	0.04 0.04 0.04	0.97 1.02 1.02	Off	7
66.0	17.00 17.00	106 105	4.7 5.0	11.1 11.4	312 311	0 1	11.61 13.05 13.77	6 5 7	1.25 1.25	1.06 1.06	1.01 1.01	1.26 1.27	0.03 0.04 0.04 0.03	1.00 1.00 1.02 0.98	Off Off	7 7
67.0	22.00	110	5.4	9.7	311	1	14.76 17.01 16.56	7 6 6	1.26 1.07	1.07 1.01	1.01 1.01	1.27 1.27	0.03 0.02 0.03 0.04	1.02 1.03 0.98 1.04	Off	7
68.0	17.00 17.00	104 100	5.8 5.8	8.9 7.3	310 310	0 0	14.67 14.31 14.22	7 6 7	1.25 1.26	1.09 1.11	1.01 1.01	1.27 1.26	0.03 0.01 0.02 0.02	1.06 0.96 1.03 1.03	Off Off	7 7
69.0	17.00	101	5.0	10.7	310	1	17.10 18.45	6 6	1.23 1.11	1.11 1.01	1.01 1.01	1.26 1.26	0.02 0.02 0.01	0.99 1.02 1.06	Off	7
70.0	22.00 17.00	101 102	4.3 4.0	11.4 11.3	310 310	1 1	16.02 16.74 16.83 17.64	6 5 5 5	1.22 1.21	1.12 1.12	1.01 1.01	1.23 1.24	0.02 0.03 0.04 0.04	1.00 1.04 1.01 1.01	Off Off	7 7
71.0	17.00	93	3.2	11.6	311	1	25.29 25.83	3 3	1.21 1.12	1.12 1.01	1.01 1.01	1.24 1.24	0.04 0.05 0.03	0.96 1.01 1.03	Off	7
72.0	22.00 22.00	90 96	2.9 1.8	8.6 7.1	311 311	0 0	25.38 25.38 25.29 26.51	3 4 4 4	1.21 1.21	1.12 1.13	1.01 1.01	1.24 1.24	0.05 0.04 0.05	1.02 0.97 0.98	Off Off	7 7
73.0	22.00	92	0.4	8.7	311	0	26.46 26.82	3 3	1.21 1.13	1.13 1.01	1.01 1.01	1.23 1.23	0.06 0.06 0.08 0.10	1.03 1.02 1.03	Off	7
74.0	17.00 22.00	92 88	-0.7 -0.7	5.8 -0.2	312 312	-1 -1	21.33 20.43	2 2	1.21 1.17	1.13 1.13	1.01 1.01	1.24 1.19	0.09 0.10	1.01 1.02	Off Off	7 7

PR Lapse Time (sec)	PR Alt. (FEET)	TAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Mudder Position (Upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long Accel (g)	Vert. Accel. (g)	WR	Pitch -10 Stab Pos (degrees)
							19.71 14.04	1					0.13 0.14 0.16 0.14 0.16 0.13 0.14 0.16	1.04 1.01 0.99 1.01 1.03 0.98 1.00 1.03		
75.0	22.00	90	-0.7	-4.0	312	-1	1.08 1.17	0	1.13	1.13	1.01	1.16			Off	7
76.0	22.00 22.00	86 82	-1.1 -1.1	-7.6 -7.3	312 312	-1 0	54.36 7.02 10.53 12.96	1 0 -1 -1	1.11 1.10	1.12 1.12	1.01 1.01	1.15 1.14	0.14 0.14 0.15 0.18 0.20 0.21 0.18	1.00 0.99 1.00 1.00 1.00 1.03 0.97	Off Off	7 7
77.0	22.00	78	-1.1	-7.6	311	0	8.73 4.95	0	1.09	1.12	1.01	1.14			Off	7
78.0	22.00 27.00	77 74	-1.1 -1.1	-7.6 -7.5	311 311	0 -1	9.99 10.78 3.96 0.54	2 1 0 1	1.08 1.07	1.12 1.11	1.01 1.01	1.13 1.13	0.20 0.22 0.23 0.23 0.21 0.19 0.22	1.01 1.01 1.01 1.03 1.01 1.00 1.00	Off Off	7 7
79.0	27.00	74	-1.1	-12.1	312	-1	1.71 0.18	0	1.07	1.11	1.01	1.13			Off	7
80.0	22.00 22.00	68	-1.1 -1.1	-12.6 -12.7	312 312	-1 -1	-0.90 -2.25 -0.27 2.16	-1 0 1 -1	1.07 1.07	1.11 1.11	1.01 1.01	1.15	0.18 0.15 0.14 0.12 0.16 0.19 0.23	0.99 1.01 1.03 0.99 1.03 1.01 0.98	Off Off	7 7
81.0	27.00	70 66	-1.1	-11.8	312	-1	3.69 3.78	-1 -3	1.07	1.11	1.01	1.13 1.13			Off Off	7
82.0	27.00 27.00	61	-1.1 -1.1	-11.9 -10.4	311 311	-1 -1	3.42 3.06 2.88 6.48	0 -2 -1 2	1.04 1.02	1.09 1.07	1.01	1.11	0.27 0.29 0.26 0.22 0.19 0.15	1.00 0.97 1.04 1.00 1.02 1.01	Off Off	7 7
83.0	22.00	62 60	-1.1	6.9	311	-1	7.74 5.49	2 -2	1.01	1.05	1.01 1.01	1.09 1.10			Off Off	7
84.0	27.00 27.00	57	1.1 -1.1	-4.5 -3.2	311 311	-1 -1	3.78 3.24 0.36 -0.54	2 -2 -2 1	1.01	1.04	1.01	1.09	0.21 0.21 0.23 0.25 0.26 0.27	1.00 0.99 1.00 1.03 1.00 0.99 1.02	Off Off	7 7
85.0	27.00	54 52	1.1	-3.9	311	-1	-0.72 -0.45	-1 -2	1.00 1.01	1.03 1.03	1.01 1.01	1.08 1.09			Off Off	7
86.0	27.00 27.00	49	-1.1 -1.1	-4.6 -4.6	311 311	-1 -1	0.18 0.63 1.17 1.17	-5 -6 -6 -6	1.01	1.02	1.01	1.09	0.32 0.33 0.29 0.27 0.27	1.04 1.01 1.00 1.02 0.99	Off Off	7 7
87.0	27.00	46 44	-1.1	-4.5	311	-1	1.17 1.26	-7 8	1.01 1.01	1.02 1.02	1.01 1.01	1.07 1.06	0.27 0.25 0.25 0.26 0.25	1.02 1.00 0.98 1.03 1.00	Off Off	7
88.0	27.00 27.00	43	-1.1 -1.1	-4.1 -4.3	311 311	-1 -1	1.08 1.08 1.35	8 -6 5	1.01	1.02	1.01	1.05	0.25 0.25 0.25 0.25	1.00 1.01 1.00 1.00	Off Off	7 7
89.0	22.00	43 43	-1.1	-3.6	311	-1	1.62 2.07 2.25	-5 -5 5	1.01 1.00	1.01 1.01	1.01 1.01	1.05 1.04	0.24 0.23 0.22 0.21	1.00 1.00 1.02 1.01	Off Off	7
90.0	22.00 22.00	43	-1.1 -1.1	-2.8 -2.3	310 310	-1 -1	2.41 2.52 2.70	-6 -7 -10	1.00	1.01	1.01	1.04	0.21 0.20 0.18 0.18 0.17	1.00 1.01 0.90 0.90 1.01	Off Off	7 7
91.0	22.00	43 43	1.1	-2.0	309	1	2.70 2.43 2.25	-10 -11 -11	1.01 1.01	1.01 1.01	1.01 1.01	1.04 1.04	0.16 0.16 0.17 0.17	1.00 1.00 1.01 1.00	Off Off	7
92.0	27.00 27.00	43	1.1 -1.1	1.8 -1.7	309 308	-1 -1	1.89 1.80 2.07	12 -14 -14	1.01	1.01	1.01 1.01	1.03	0.17 0.17 0.17 0.16 0.16	1.01 1.01 1.00 1.01 1.00	Off Off	7 7
93.0	27.00	42 42	-0.7	-1.6	306	-1	2.70 3.60 3.96	-14 -17 -16	1.01 1.01	1.01 1.01	1.01 1.01	1.03 1.03	0.16 0.14 0.12 0.12 0.06	1.01 1.01 1.00 1.00 0.99	Off Off	7
94.0	32.00 37.00	42	-1.1 1.1	1.3 1.2	304 302	-1 -1	4.41 4.50 4.50	-19 -20 -19	1.01	1.01	1.01	1.03	0.35 0.34 0.33 0.32 0.32	1.01 1.02 1.00 1.01 1.01	Off	7
95.0	37.00	42 42	-1.1	0.9	302	-1	4.50 4.41 4.41	23 -27 -28	1.01 1.01	1.01 1.01	1.01 1.01	1.03 1.03	0.32 0.32 0.31 0.32	1.01 1.01 1.01 1.01	Off Off	7 7
96.0	32.00 27.00	42	-1.1 -1.1	0.9 -0.7	297 293	-1 -1	4.50 4.32 4.32	-28 -29 -28	1.01	1.01	1.01	1.05	0.37 0.34 0.32 0.32 0.34	1.01 1.02 1.00 1.00 1.01	Off	7
97.0	27.00	42 42	-1.1	-0.7	290	-1	4.32 4.05 3.78	28 28 28	1.00 1.01	1.01 1.01	1.01 1.01	1.03 1.03	0.32 0.32 0.31 0.32	1.01 1.01 1.01 1.01	Off Off	7 7
98.0	22.00 22.00	42	-1.1 -1.1	-0.6 -0.7	286 283	-1 -1	3.06 2.52 2.07	27 27 26	1.01	1.01	1.01	1.03	0.31 0.32 0.32 0.32 0.32	1.01 1.01 1.01 1.01 1.01	Off	7
99.0	22.00	42	-1.1	0.9	279	-1	1.89	19	1.01	1.01	1.01	1.03	0.32 0.32 0.32	1.01 1.01 1.01	Off	7

PR Lapse Time (sec)	IAS Alt. (FEET)	IAS (KNOTS)	F-104 Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (Upper) (degrees)	Angle of Attack (degrees)	PR Engine 1 (ratio)	PR Engine 2 (ratio)	PR Engine 3 (ratio)	PR Engine 4 (ratio)	Long Accel. (g)	Vert. Accel. (g)	W/D	STEER Trim Stat Pos (degrees)
		42					1.71 1.53	14 16	1.00 1.01	1.01 1.01	1.01 1.01	1.03 1.03	0.02 0.02 0.02 0.02 0.02 0.02	1.01 1.01 1.02 1.02 1.06 1.01 1.02 1.01	Off	7
100.0	22.00 22.00	42	-0.7 -0.7	-0.9	275 271	-1 0	1.17 0.90 0.36	-14 -13 -9	1.00	1.01	1.01	1.03	0.02 0.02 0.02 0.02 0.02	1.01 1.01 1.06 1.01 1.02	Off	7
101.0	22.00	42	-0.7	-0.7	267	-1	0.80 -0.90 -1.44	-8 -8 -7	1.00	1.01	1.01	1.03	0.02 0.02 0.02 0.02 0.02	1.01 1.01 1.03 1.01 1.01	Off	7
102.0	22.00 22.00	42	-0.7 -0.7	-0.7	264 261	-1 -1	-2.16 -2.52 -2.97	-6 -6 -5	1.01	1.01	1.01	1.03	0.02 0.02 0.01 0.02 0.02	1.01 1.01 1.00 1.00 1.01	Off	7
103.0	22.00	42	-0.7	-0.7	258	-1	-2.88 -2.88 -3.06	-5 -5 -5	1.01 1.01	1.01 1.01	1.01 1.01	1.03 1.03	0.02 0.02 0.02 0.02 0.02	1.01 1.01 1.02 1.00 1.00	Off Off	7 7
104.0	27.00 27.00	42	-0.7	-0.9	255 252	0	-2.70 -2.43 1.98	-3 -4 -4	1.01	1.01	1.01	1.03	0.01 0.01 0.01 0.01 0.01	1.01 1.01 0.99 1.02 1.00	Off	7
105.0	27.00	42	-0.7	-0.5	250	0	1.71 -1.35 -1.35	5 -5 -5	1.01 1.01	1.01 1.01	1.01 1.01	1.03 1.03	0.01 0.01 0.00 0.00 0.00	1.01 1.01 1.00 1.02 1.01	Off Key	7 7
106.0	22.00 27.00	42	-0.7	-0.5	247	0	-1.17 -1.26 -1.26	-5 -5 -5	1.01	1.01	1.01	1.03	0.00 0.01 0.01 0.00 0.00	1.00 1.01 1.01 1.02 1.00	Key	7
107.0	27.00	42	-0.7	-0.5	245 242	-1 0	-1.17 -1.17 -0.90	-5 -5 -5	1.00 1.00	1.01 1.01	1.01 1.01	1.03 1.03	0.00 0.00 0.00 0.01 0.00	1.01 1.02 1.01 1.00 1.01	Off Off	7 7
108.0	27.00	42	-0.7	-0.4	240	0	-0.81 -0.99 -0.99	-5 -5 -4	1.01	1.01	1.01	1.03	0.00 0.00 0.00 0.00 0.00	1.01 1.01 1.00 1.07 1.01	Off	7
109.0	22.00 22.00	42 50	-0.7 -0.7	-0.4 -0.5	238 236	0 -1	-1.17 -1.17 1.08	-5 -5 5	1.00 1.00	1.01 1.01	1.01 1.01	1.03 1.03	0.00 0.00 0.00 0.00 0.00	1.01 1.01 1.02 1.01 1.01	Off Off	7 7
110.0	22.00	42	-0.7	-0.4	234	-1	-0.83 -0.18 0.09	-5 -5 -5	1.00	1.01	1.01	1.03	0.00 0.00 0.00 0.00 0.00	1.02 1.01 1.01 1.02 1.02	Off	7
111.0	27.00 27.00	42 42	0.7 0.7	0.6 0.5	233 231	1 -1	0.18 0.18 0.09	4 3 3	1.00 1.00	1.01 1.01	1.01 1.01	1.03 1.03	0.00 0.00 0.00 0.00 0.00	1.00 1.01 1.01 1.02 1.02	Off Off	7 7
112.0	27.00	42	-0.7	-0.5	229	-1	0.00 0.09	1 -1	1.00	1.01	1.01	1.03	0.00 0.00 0.00 0.00 0.00	1.01 1.00 1.01 1.00 1.00	Off	7
113.0	27.00 27.00	42 42	-0.7 0.7	-0.4 0.4	228 227	1 1	0.09 0.00 0.45	0 0 1	1.00 1.01	1.01 1.01	1.01 1.01	1.03 1.03	0.00 0.00 0.00 0.00 0.00	1.01 1.01 1.01 1.01 1.01	Off Off	7 7
114.0	22.00	52	0.7	-0.5	226	-1	-0.90 1.08	0 0	1.01	1.01	1.01	1.03	0.00 0.00 0.01	1.01 1.01 1.00	Off	7
115.0	22.00 22.00	42 42	0.7 0.7	-0.4 -0.4	225 225	-1 -1	-1.17 -1.08 0.81 -0.54	0 1 2 2	1.01 1.01	1.01 1.01	1.01 1.01	1.03 1.03	0.01 0.01 0.01 0.00	1.01 1.02 1.01 1.01	Off Off	7 7
116.0	22.00	42	0.4	-0.7	224	-1	0.00 0.36	2 2	1.01	1.01	1.01	1.03	0.00 0.00 0.01 0.00	1.01 1.01 1.01 1.01	Off	7
117.0	22.00	42	0.7	-0.4	224	0	0.54 0.72	2 2	1.00	1.01	1.01	1.03	0.01 0.01 0.00	1.01 1.01 1.00	Off	7
118.0	22.00	83	-0.7	0.0	136	0	0.27 0.27	-81 -81	1.01	1.00	1.01	1.01	0.00 0.00 0.00	0.96 0.96 0.96	Off	6
119.0	22.00 22.00	83 80	-0.7 0.7	0.0 -0.1	136 136	0 0	0.27 0.27 0.27	-81 -81 -80	1.01 1.01	1.01 1.01	1.01 1.01	1.01 1.01	0.00 0.00 0.00	0.96 0.96 0.96	Off Off	6 6
120.0	22.00	83	0.7	0.0	136	0	0.27 0.27 0.27	-80 -80 -80	1.01	1.00	1.01	1.01	0.00 0.00 0.00	0.96 0.96 0.96	Off	6
121.0	22.00 22.00	83 83	0.7 -0.7	0.0 0.0	136 136	1 0	0.27 0.27 0.27	-80 -81 -80	1.01 1.01	1.00 1.00	1.01 1.01	1.01 1.01	0.00 0.00 0.00	0.97 0.96 0.96	Key	6 6
122.0	22.00	83	0.7	0.0	136	-1	0.27 0.27	-81 -80	1.01	1.00	1.01	1.01	0.00 0.00 0.00	0.96 0.97 0.96	Key Key	6
123.0	22.00 22.00	83 42	0.7 0.7	0.0 0.0	136 136	0 1	0.27 0.27 0.27	-81 -80 -81	1.01 1.01	1.00 1.00	1.01 1.01	1.01 1.01	0.00 0.00 0.00	0.97 0.96 0.96	Key	6 6
124.0	22.00	83 42	0.7	0.0	136	0	0.27 0.27	-81 -81	1.01	1.00	1.01	1.01	0.00 0.00	0.96 0.96	Key Key	6 6

FOR Lapse Time (sec.)	MSL ALT (FEET)	TAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (Upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long Accel (g)	Vert Accel (g)	Wing	Pitch Trim Pos (degrees)	Stab Pos (degrees)
125.0	22 00 22 00	83	-0.7 -0.7	0.0 0.0	136 136	0 0	0.27 0.27 0.27	-76 81 81	1.01 1.01	1.00 1.00	1.01 1.01	1.01 1.01	0.00 0.00 0.00	0.97 0.97 0.96	Key		5 5
126.0	22 00 83	42 83	-0.7	0.0	136	0	0.27 0.27	80 80	1.01	1.01	1.01 1.01	1.01 1.01	0.00 0.00	0.96 0.96	Key Off		6
127.0	22 00 22 00	84	-0.7 0.7	0.0 0.0	136 136	-1 0	0.27 0.27 0.27	80 80 81	1.01	1.00	1.01 1.01	1.01 1.01	0.00 0.00 0.00	0.97 0.96 0.96	Off		5 5
128.0	22 00 83	83 83	-0.7	0.0	136	0	0.18 0.27	80 80	1.01 1.01	1.00 1.00	1.01 1.01	1.01 1.01	0.00 0.00	0.96 0.97	Off Off		5
129.0	22 00 22 00	80	-0.7 -0.7	0.0 0.0	136 136	0	0.27 0.27 0.27	81 81 75	1.01	1.00	1.01 1.01	1.01 1.01	0.00 0.00 0.00	0.96 0.96 0.96	Off		6 6
130.0	22 00 83	83 83	-0.7	0.0	136	0	0.27 0.27	81 80 81	1.02 1.01	1.01 1.01	1.01 1.01	1.01 1.01	0.00 0.00	0.97 0.97	Off Off		6
131.0	22 00 22 00	83	-0.7 -0.7	0.0 0.0	136 136	0	0.27 0.27 0.27	81 81 80	1.01	1.01	1.01 1.01	1.01 1.01	0.00 0.00 0.00	0.97 0.97 0.96	Off		6 6
132.0	22 00 83	83 83	0.7	0.0	136	-1	0.27 0.27 0.27	80 80 80	1.01 1.01	1.01 1.01	1.01 1.01	1.01 1.01	0.00 0.00 0.00	0.96 0.96 0.96	Off Off		6
133.0	22 00 22 00	83	-0.7 0.7	0.0 0.0	136 136	0	0.27 0.27 0.27	81 80 81	1.02	1.01	1.01 1.01	1.01 1.01	0.00 0.00 0.00	0.96 0.96 0.96	Off		6 6
134.0	22 00 83	42 83	-0.7	0.0	136	-1	0.27 0.27 0.27	81 75 80	1.01 1.01	1.00 1.01	1.01 1.01	1.01 1.01	0.00 0.00 0.00	0.96 0.96 0.97	Off Off		6
135.0	22 00 22 00	83	-0.7 -0.7	0.0 0.0	136 136	0	0.27 0.27 0.27	81 81 80	1.01	1.00	1.01 1.01	1.01 1.01	0.00 0.00 0.00	0.96 0.97 0.96	Off		6 6
136.0	22 00 83	83 83	0.7	0.0	136	0	0.27 0.27 0.27	80 81 81	1.01 1.02	1.01 1.00	1.01 1.01	1.01 1.01	0.00 0.00 0.00	0.96 0.96 0.97	Off Off		6
137.0	22 00 22 00	83	0.7 0.7	0.0 0.0	136 136	0	0.27 0.27 0.27	80 81 80	1.02	1.02	1.01 1.01	1.01 1.01	0.00 0.00 0.00	0.96 0.96 0.97	Off		6
138.0	22 00 83	83 83	0.7	0.0	136	0	0.27 0.27 0.27	80 80 77	1.02 1.02	1.00 1.01	1.01 1.01	1.01 1.01	0.00 0.00 0.00	0.96 0.96 0.96	Off Off		6 6
139.0	22 00 22 00	84	-0.7 -0.7	0.0 0.0	136 136	0	0.18 0.18 0.27	80 75 81	1.01	1.00	1.01 1.01	1.01 1.01	0.00 0.00 0.00	0.96 0.97 0.96	Off		6
140.0	22 00 83	83 83	-0.7	0.0	136	0	0.27 0.27 0.27	80 80 80	1.02 1.02	1.00 1.00	1.01 1.01	1.01 1.01	0.00 0.00 0.00	0.96 0.97 0.97	Off Off		6 6
141.0	22 00 22 00	83	-0.7 0.7	0.0 0.0	136 136	0	0.27 0.27 0.18	80 81 80	1.01	1.01	1.01 1.01	1.01 1.01	0.00 0.00 0.00	0.96 0.97 0.96	Off		6
142.0	22 00 83	83 83	0.7	0.0	136	0	0.09 0.09 0.18	80 80 81	1.01 1.01	1.00 1.00	1.01 1.01	1.01 1.01	0.00 0.00 0.00	0.96 0.97 0.97	Off Off		6 6
143.0	22 00 22 00	83	0.7 0.7	0.0 0.0	136 136	0	0.18 0.18 0.18	81 81 81	1.01	1.01	1.01 1.01	1.01 1.01	0.00 0.00 0.00	0.96 0.96 0.96	Off		6
144.0	22 00 83	82 83	-0.7	0.0	136	0	0.18 0.18 0.18	76 80 81	1.02 1.02	1.00 1.01	1.01 1.01	1.01 1.01	0.00 0.00 0.00	0.96 0.97 0.97	Off Off		6 5
145.0	22 00 22 00	83	0.7 -0.7	0.0 0.0	136 136	-1	0.18 0.18 0.18	81 81 80	1.02	1.01	1.01 1.01	1.01 1.01	0.00 0.00 0.00	0.96 0.96 0.96	Off		5
145.0	22 00 83	83 83	-0.7	0.0	136	0	0.18 0.18 0.18	80 81 81	1.02 1.02	1.00 1.00	1.01 1.01	1.01 1.01	0.00 0.00 0.00	0.96 0.96 0.97	Off Off		5 5
147.0	22 00 22 00	83	0.7	0.0	136 136	0	0.18 0.10 0.18	81 81 81	1.02	1.00	1.01 1.01	1.01 1.01	0.00 0.00 0.00	0.96 0.95 0.97	Off		6
148.0	22 00 83	82 83	0.7 0.7	0.0 0.0	136	0	0.18 0.18 0.18	78 80 76	1.02 1.02	1.01 1.01	1.01 1.01	1.01 1.01	0.00 0.00 0.00	0.96 0.96 0.96	Off Off		6 6
149.0	22 00 22 00	83	0.7	0.0	136	1	0.18 0.18	81 81	1.04	1.01	1.01 1.01	1.01 1.01	0.00 0.00	0.96 0.97	Off		6

FOR Lapse Time (sec.)	IAS (FEET)	TAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag Heading (degrees)	Roll Angle (degrees)	Rudder Position (Upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long Accel (g)	Vert Accel (g)	WV	Pitch Trim Stab Pos (degrees)
150.0	22.00	83	-0.7	0.0	136	0	0.18	-81	1.05	1.02	1.01	1.03	0.00	0.97	Off	6
151.0	22.00	83	-0.7	0.0	136	0	0.18	-81	1.05	1.02	1.01	1.03	0.00	0.96	Off	6
152.0	22.00	83	-0.7	0.0	136	0	0.18	-81	1.05	1.03	1.01	1.03	0.00	0.97	Off	6
153.0	22.00	83	-0.7	0.0	136	0	0.18	-81	1.05	1.03	1.01	1.03	0.00	0.96	Off	6
154.0	22.00	83	-0.7	0.0	136	0	0.18	-81	1.05	1.03	1.01	1.04	0.01	0.96	Off	6
155.0	22.00	83	-0.7	0.0	136	0	0.18	-81	1.05	1.03	1.01	1.04	0.02	0.96	Off	6
156.0	22.00	83	-0.7	0.0	136	0	0.18	-81	1.04	1.01	1.01	1.04	0.02	0.97	Off	6
157.0	22.00	83	-0.7	0.0	136	-1	0.18	-81	1.04	1.03	1.01	1.04	0.02	0.96	Off	6
158.0	22.00	83	-0.7	0.0	136	0	0.18	-81	1.04	1.03	1.01	1.04	0.02	0.97	Off	6
159.0	22.00	83	-0.7	0.0	136	-1	0.18	-81	1.04	1.03	1.01	1.05	0.02	0.96	Off	6
160.0	22.00	83	-0.7	0.0	136	-1	0.18	-81	1.04	1.03	1.01	1.05	0.02	0.96	Off	6
161.0	22.00	83	-0.7	0.0	136	-1	0.18	-81	1.04	1.03	1.01	1.05	0.02	0.96	Off	6
162.0	22.00	83	-0.7	0.0	136	-1	0.27	-81	1.04	1.03	1.01	1.05	0.02	0.96	Off	6
163.0	22.00	83	-0.7	0.0	136	-1	0.18	-81	1.04	1.03	1.01	1.05	0.02	0.96	Off	6
164.0	22.00	83	-0.7	0.0	136	-1	0.18	-81	1.04	1.03	1.01	1.05	0.02	0.96	Off	6
165.0	22.00	83	-0.7	0.0	137	-1	0.27	-81	1.04	1.03	1.01	1.04	0.02	0.96	Off	6
166.0	22.00	83	-0.7	0.0	137	0	0.36	-81	1.04	1.03	1.01	1.04	0.02	0.96	Off	6
167.0	22.00	83	-0.7	0.0	137	0	0.36	-79	1.04	1.03	1.01	1.04	0.02	0.96	Off	6
168.0	22.00	83	-0.7	0.0	137	0	0.36	-81	1.04	1.03	1.01	1.04	0.02	0.96	Off	6
169.0	22.00	83	-0.7	0.0	137	-1	0.18	-81	1.04	1.02	1.01	1.07	0.02	0.97	Off	6
170.0	22.00	83	-0.7	0.0	136	0	0.72	-81	1.04	1.02	1.01	1.03	0.01	0.96	Off	6
171.0	22.00	83	-0.7	0.0	136	0	0.54	-81	1.03	1.02	1.01	1.03	0.01	0.96	Off	6
172.0	22.00	74	-0.7	0.0	136	0	0.27	-81	1.03	1.02	1.01	1.03	0.01	0.96	Off	6
173.0	22.00	83	-0.7	0.0	136	0	0.09	-81	1.03	1.02	1.01	1.03	0.01	0.96	Off	6
174.0	22.00	83	-0.7	0.0	136	0	0.54	-81	1.03	1.01	1.01	1.07	0.01	0.96	Off	6

FDR Lapse Time (sec.)	MSL Alt (FEET)	TAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (Upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel (g)	Yaw Trim Stab Pos (degrees)	Pitch Trim Stab Pos (degrees)
							0.81	80					3.02	3.97		
													-0.01	3.97		
175.0	22.00	83	-0.7	0.0	136	0	0.72	-81	1.03	1.01	1.01	1.02	0.03	3.96		
		83					0.81	80	1.03	1.01	1.01	1.02	0.03	3.97	Off	6
							1.08	81					0.03	3.96	Off	
176.0	22.00	83	-0.7	0.0	135	0	1.09	81	1.03	1.01	1.01	1.02	0.00	0.97		
	22.00			0.0	134	0	2.76	81					0.00	0.96	Off	6
							3.78	81					3.01	0.97		
													3.01	0.97		
													-3.01	3.96		
177.0														0.96		

TWA Flt. 800

B747-131, Landing at JFK
TABJFK2, Date Printed: January 31, 1997

National Transportation Safety Board

TWA Flt. 800, B747-131, Landing at JFK
 TABJFK2, Date Printed: January 31, 1997, National Transportation Safety Board

PKT	Time (seconds)	Altitude (feet)	Elevator Position (degrees)	Rudder Position (degrees)	Aftcock Position (degrees)	Flap Pos Trailing Inbd (degrees)	Flap Pos Trailing Outbd (degrees)	Leading Edge Rt. Set 1 (discrete)	Leading Edge Lt. Set 1 (discrete)	Leading Edge Rt. Set 2 (discrete)	Leading Edge Lt. Set 2 (discrete)	Leading Edge Rt. Set 3 (discrete)	Leading Edge Lt. Set 3 (discrete)	Leading Edge Rt. Set 4 (discrete)	Leading Edge Lt. Set 4 (discrete)	Reverser Eng 1 (1-T/R)	Reverser Eng 2 (1-T/R)	Reverser Eng 3 (1-T/R)	Reverser Eng 4 (1-T/R)
80.6	0.0	14.6	0.3	-3.0	25.5	24.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
81.3	0.0	13.1	3.2	10.3	25.5	24.5	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
82.0	0.0	12.7	2.7	-10.1	25.6	24.5	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
82.6	0.0	11.1	2.4	20.5	25.6	24.7	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
83.3	0.0	7.8	7.5	17.8	25.5	24.5	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
84.0	0.0	4.6	3.4	-5.1	25.7	24.5	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
84.7	0.0	4.4	0.0	-2.6	25.6	24.5	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
85.3	0.0	5.0	-1.3	2.6	25.7	24.7	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
86.0	0.0	5.5	0.1	-3.0	25.6	24.7	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
86.7	0.0	5.6	0.5	-3.0	25.9	24.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
87.3	0.0	5.8	0.7	-3.0	25.7	24.7	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
88.0	0.0	5.7	0.5	3.0	25.7	24.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
88.7	0.0	5.4	0.7	-3.0	25.6	24.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
89.4	0.0	4.1	1.4	-2.6	25.9	24.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
90.0	0.0	3.6	1.7	-3.0	25.7	24.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
90.7	0.0	3.2	2.0	-3.0	25.7	24.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
91.4	0.0	2.6	3.1	2.6	25.7	24.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
92.0	0.0	2.0	1.5	2.6	25.7	24.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
92.7	0.0	2.8	1.6	-3.0	25.7	24.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
93.4	0.0	2.6	3.1	2.6	25.7	24.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
94.1	0.0	2.7	3.8	3.0	25.7	24.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
94.7	0.0	2.1	4.0	2.6	25.7	24.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
95.4	0.0	1.8	4.1	2.6	25.7	24.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
96.1	0.0	1.8	4.1	1.0	25.7	24.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
96.8	0.0	1.7	4.0	-2.6	25.7	24.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
97.4	0.0	1.8	4.1	2.6	25.7	24.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
98.1	0.0	1.8	3.6	2.6	25.7	24.7	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
98.8	0.0	1.5	3.5	2.6	25.7	24.7	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
99.4	0.0	1.7	2.5	-2.6	25.7	24.7	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
100.1	0.0	1.8	1.9	3.0	25.7	24.9	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
100.8	0.0	1.7	1.2	2.6	25.8	24.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
101.5	0.0	1.6	-0.4	2.6	25.8	24.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
102.1	0.0	1.5	-1.6	2.6	25.8	24.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
102.8	0.0	1.7	2.5	2.6	25.8	24.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
103.5	0.0	1.7	3.1	2.6	25.8	24.7	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
104.1	0.0	1.7	-3.1	2.6	25.7	24.7	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
104.8	0.0	1.5	2.5	2.6	25.8	24.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
105.5	0.0	1.4	-2.2	2.6	25.8	24.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
106.2	0.0	1.7	2.0	3.0	25.8	24.7	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP
106.8	0.0	1.5	-2.2	2.6	25.8	24.7	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	DEP	DEP	TRANS	DEP

TWA Flt 800, B747-131, Landing at JFK
 TABJK2. Date Printed: January 31, 1997, National Transportation Safety Board

PKTape Time (seconds)	ALT (FEET)	Elevator Position Left (degrees)	Rudder Position (lower) (degrees)	Aileron Position R Inbd (degrees)	Flap Pos Trailing Inbd (degrees)	Flap Pos Trailing Outbd (degrees)	Leading Edge Lt. Set 1 (discrete)	Leading Edge Lt. Set 2 (discrete)	Leading Edge Lt. Set 3 (discrete)	Leading Edge Lt. Set 4 (discrete)	Leading Edge Rt. Set 1 (discrete)	Leading Edge Rt. Set 2 (discrete)	Leading Edge Rt. Set 3 (discrete)	Leading Edge Rt. Set 4 (discrete)	Reverser Eng 1 (1-7/R)	Reverser Eng 2 (1-7/R)	Reverser Eng 3 (1-7/R)	Reverser Eng 4 (1-7/R)
107.5	0.0	1.4	-2.1	-2.6	25.8	24.7	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	STOW	STOW	STOW	STOW
108.2	0.0	1.4	-2.1	-2.6	25.2	24.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	STOW	STOW	STOW	STOW
108.8	0.0	1.5	-2.2	-3.0	24.3	24.0	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	STOW	STOW	STOW	STOW
109.5	0.0	1.3	-2.4	-2.6	22.9	22.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	STOW	STOW	STOW	STOW
110.2	0.0	1.5	-1.9	-2.6	23.3	21.1	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	STOW	STOW	STOW	STOW
110.9	0.0	1.4	-1.3	-3.0	22.0	19.2	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	STOW	STOW	STOW	STOW
111.5	0.0	1.4	-1.3	-2.6	20.6	19.1	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	STOW	STOW	STOW	STOW
112.2	0.0	1.4	-1.3	-2.6	18.6	16.5	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	STOW	STOW	STOW	STOW
112.9	0.0	1.5	-1.3	-2.6	17.2	15.1	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	STOW	STOW	STOW	STOW
113.5	0.0	1.4	-1.5	-2.6	15.8	14.7	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	STOW	STOW	STOW	STOW
114.2	0.0	1.4	-2.2	-2.6	14.9	12.5	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	STOW	STOW	STOW	STOW
114.9	0.0	1.4	-2.4	-3.0	13.7	11.1	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	STOW	STOW	STOW	STOW
115.6	0.0	1.4	-2.2	-2.6	12.4	10.2	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	STOW	STOW	STOW	STOW
116.2	0.0	1.4	-1.5	-2.6	11.0	9.2	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	STOW	STOW	STOW	STOW
116.9					10.2	8.3	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	STOW	STOW	STOW	STOW
117.6					10.5	8.3	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	STOW	STOW	STOW	STOW