Addendum 1, Revision 1

to FDR Group Chairman Factual Report - 10

DCA96MA070

submitted

September 9, 1998

revised

February 15, 2000

NATIONAL TRANSPORTATION SAFETY BOARD

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

February 15, 2000

Flight Data Recorder - 10

Addendum I to Group Chairman's Factual Report (Revision 1) (Additional Parameters for Flt. 800 and Prior Landing)

by Dennis R. Grossi

Α. 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

Revision Note: The FDR recovery software used to produce the tabular listing in the original Addendum report was designed to process a standard 64-word, 1-second data frame, not the 43-word, 0.67188-second data frame used by the TWA 800 FDR system. Algorithms added to the software properly addressed the timing of the data frames but introduced timing offsets within each data frame ranging linearly from 0.005 seconds for the 1st word to 0.22 seconds for the 43rd word. The software was revised to correctly define the time of each parameter within each 0.67188-second data frame.

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 did it contain any data recorded during 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 elapsed time was used as the time base for data recorded during the landing prior to flight 800.

Dennie R. Graci

Dennis R. Grossi National Resource Specialist Flight Data Recorders

TWA Flt. 800

B747- 131, Takeoff to End of Data Tabular Data No. 2, Revised: December 22, 1999

National Transportation Safety Board

TWA Fit. 800, B747-131, Takeoff to End of Data Tabular Data No. 2. Revised: December 22. 1999. National Trar		National Trar
	TWA Flt. 800, B747-131, Takeoff to End of Data	Tabular Data No. 2. Revised: December 22. 1999.

Time ALTC Elevator Rudder Aileron Flap pos Flap	ALTC	Elevator	Rudder	Aileron	Flap pos	- ·	Leading	Reverser	Reverser	Reverser	Keverser Fre							
(seconds)	(FEET)	rosition Left (degrees)	rosition (lower) (degrees)	rosition R inbd (degrees)	Inbd (degrees)	I F4 I I I II 9 OUTBD (degrees)	Euge LL. Set 1 (discrete)	cuge LL. Set 2 (discrete)	Euge LL. Set 3 (discrete)	Euge LL. Set 4 (discrete)	Euge KL. Set 1 (discrete)	Euge KL. Set 2 (discrete)	cuge ku. Set 3 (discrete)	сиде ки. Set 4 (discrete)	сия т (1-Т/R)			сп9 4 (1-Т/R)
20:18:40	-2835 -2835	0.7	2.9	-3.4	10.8 10.9	10.1 10.0	Ext Ext	Ext Ext	Ext Ext	EXt	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
	- 2835	00	2.20 2.00 2.00	-9.3 -9.1	10.7 10.9 10.8	10.0 10.0 9.9		Ext		Ext	Ext	Ext	Ext	Ext	Stow		Stow	Stow
20:18:42	-2835	0.8	2.9	11.6	10.8	10.0	Ext Fxt	Ext	EXt Fxt	EXT Fx+	Ext Fxt	Ext Fxt	Ext	Ext Fxt	Stow	Stow	Stow	Stow Stow
20:18:43	- 2835 - 2835	0.3	1.001	$11.6\\10.7$	01100							Ext	Ext	EXt	Stow		Stow	Stow
20:18:44	-2835	0.7	0.9	11.0	10.8 10.8	2.9 9.9 10.01	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow							
20:18:45	- 2835 - 2835	0.8 0.7		12.6 3.9		10.0 10.0	Ext	Stow			Stow							
20:18:46 20:18:47	-2835 -2835	0.7			10.7 10.8 10.8	10.01	Ext Ext Ext	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow							
20:18:48	-2835 -2835	0	-0.9 -1.0 -1.1 -1.1	-	10.8 10.8 10.8 10.8 10.8	10.0 10.1 10.0	Ext Ext	Ext Ext	Ext Ext	Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow	Stow	Stow	Stow
20:18:49	-2835 -2835	0.0	-1.0	10.3 11.0		10.0 10.0						EXT			stow		stow	Sto
20:18:50	-2835	0	-1-1 -1-0		10 9 10 8 10 8	10.01	Ext	Ext Fxt	EXT	EXt	Ext Fxt	Ext Fxt	Ext Fxt	Ext Fxt	Stow	Stow	Stow	Stow
20:18:51	-2835 -2835	0.7	-1.0	-2.6 -2.4	10 8 10 7 10 7	10.0						EXt			Stow		Stow	Sto
20:18:52	- 2835	0.7	-0.9	-2.4	10.8 10.8	10.0 9.9						Ext			Stow		Stow	Stor
20:18:53	- 2835 - 2835	0.7	0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-	-2.6 -2.4	100 100 100 100 100 100	10.0 10.0 10.0	EXT	Ext	Ext	EXT	EXt Ext	EXT EXT	EXT	EXT	Stow	stow Stow	Stow	Stow
20:18:54	-2835	0.7	0.1 0.8	-2.6	10.8 10.7	10.0 10.0	Ext Ext	Ext Ext	Ext Ext	Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow
20:18:55	-2835 -2835	0.6		-2.6 -2.6	10.7 10.9 10.8	10.0 10.0	Ext	Stow	Stow	Stow	Stow							
20:18:56	-2700	0.8	64. 1.2	-2.0	10.9 10.7	10.0 9.9	Ext Ext	Ext Ext	Ext Ext	EXT	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:18:57	-2835 -2835	0.7	م 1 1 0	-2.6	10.8 10.8	9.9	Ext	Stow	Stow	Stow	Stow							
20:18:58	-2835) O	40 00 		10.9 10.9 10.9	01 10.0 0.0 0.0	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow							
20:18:59	-2700 -2835	3.2	10.0 70.0	-2.4 -2.6	10.7 10.9	0.0 0.0	Ext	Stow	Stow	Stow	Stow							
20:19:00	- 2835	8.6	8. 0.8 1.1 1.1		10.8 10.7 10.8	10.01 10.0 10.0 9.9	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow							
20:19:01	- 2835 - 2835	7.5 7.4	444.1 4.1 1.1	-3.0	10.8 10.8 10.3	10.0 9.9	Ext	Stow	Stow	Stow	Stow							
20:19:02	-2835	7.5	4.0 0.8	-2.6 -2.6	10.9 10.7 10.9	10.0 10.0 10.0	Ext Ext	Ext Ext	Ext Ext	Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:19:03	-2835 -2835	8.6 9.5	-0-20 -0-20 -0-20	-2.6	10.8 10.8	10.0 10.0 9.9	Ext	Stow	Stow	Stow	Stow							

				Alleron	Flap po	os Flap pos Leading Leading Leading Leading	Leading	Leading	Leading	Leading	Leading	Leading	_eading	Leading	Keverser	Keverser	reverser	Reverser
(seconds)	(FEET)	Position Left (degrees)	Position (lower) (degrees)	osition 2 inbd (degrees)	Iralling Inbd (degrees)	0UTBD (degrees)	Edge Lt. Set 1 (discrete)	Edge Lt. Set 2 (discrete)	Edge Lt. Set 3 (discrete)	-dge Lt. Set 4 (discrete)	Edge Kt. Set 1 (discrete)	Edge Kt. Set 2 (discrete)	dge Kt. Set 3 (discrete)	tdge Kt. Set 4 (discrete)	:ng I (1-T/R)			Eng 4 (1-T/R)
20:19:04	-2835	6.8	-1.2	-2.6 -2.4	10.7 10.9	9.9 10.0	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	r Stow Stow	Stow Stow	Stow
20:19:05	-2835 -2835		-3.7 -8.8 -10.6 -10.0	-2.4	10.8 10.9 10.8	9.9 10.0 10.0	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext		r Stow	Stow	Stow
20:19:06	-2835	7.9		-2.4	$\frac{31}{10.9}$	10.0	Ext	Ext Fxt	Ext Fxt	Ext Fxt	Ext Fxt	Ext Fxt	Ext Fxt	Ext Fxt	Stow Stow	r Stow	Stow	Stow Stow
20:19:07	-2835 -2700	7.7		-2.6	01 01 00 00 00 00 00 00 00 00 00 00 00 0	10.01	Ext	Ext			Ext	Ext					Stow	Stow
20:19:08	-2835	8.6	- 7 - 4	-2.2 -2.6		9.9 10.0	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	r Stow KStow	Stow Stow	Stow Stow
20:19:09	-2700 -2700	8.6 7.8		-2.6		10.0	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	/ Stow	Stow	Stow
20:19:10	- 135	8.3	မှ မှ မှ မှ ဂ တ တ တ ဂ	-3.0 -6.9	010101 0.010 0.010 0.010	9.9 10.0 9.9	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	r Stow	Stow Stow	Stow Stow
20:19:11	- 2835 - 2835	8.1 8.5		-9.7		10.0 9.9 9.9	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	/ Stow	Stow	Stow
20:19:12	-2835	9.5		-9.7 13.0	10.8 10.8 10.8	0.01 0.01 0.01	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	r Stow	Stow Stow	Stow Stow
20:19:13	-2835 -2835	8.8 8.2		-9.7		10.0 10.0	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	/ Stow	Stow	Stow
20:19:14	-2700	7.2	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	-3.7 -3.7	10.8 10.9 10.8	9.9 10.0 9.9	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	r Stow	Stow Stow	Stow Stow
20:19:15	-2700	7.1	7.7-	-6.9		10.0	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	. Stow	Stow	Stow
20:19:16	-2700	7.6		-8-9 -8-3		10.0 10.0 10.0	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	r Stow Stow	Stow Stow	Stow Stow
20:19:17	-2700 -2565	7.5		-7.9		$^{9.9}_{10.0}$	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	/ Stow	Stow	Stow
20:19:18	-2700	7.7	-2.3 -1.9 -1.3	-7.9 -8.1		8008 8008	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow	r Stow	Stow	Stow
20:19:19	-2700 -2700	7.9	-1.7	-10.1		10.0 9.8 10.0	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow Stow	r Stow	Stow Stow	Stow Stow
20:19:20	-2700	7.5	-1.9 -3.8 -4.4	-16.4 -13.0	10.8 10.9 10.7	9.9 10.0 9.9	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext	Ext	Ext	Ext	Stow	r Stow	Stow	Stow
20:19:21	-2700 -2700	~	- 4 	-12.0		10.0 9.9 10.0	Ext	Ext	Ext	Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	r Stow	Stow Stow	Stow Stow
20:19:22	-2565	7.5		-12.0		9.9 10.0	Ext	Ext	Ext	Ext	Ext	EXt	Ext	Ext	Stow	Stow	Stow	Stow
20:19:23	-2700 -2700	9		-14.4	10.7 10.8 10.7 10.6	9.9 9.9 9.7	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	/ Stow	Stow Stow	Stow Stow
20:19:24	-2700	6.1 5.8		-11.2 -17.0	10 10	8.6 8.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	r Stow	Stow	Stow
20:19:25	-2700	2		-17.0	7.01 7.01 8.01 10.8	5.0.0.0 5.0.0 5.0.0	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	r Stow	Stow Stow	Stow Stow
20:19:26	-2700 -2700	4.8	-1-2	-18.0 -18.3	10.7 10.7	0.0.0 0.0.0	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	/ Stow	Stow	Stow

	National Transn
Data	1999
TWA Flt. 800, B747-131, Takeoff to End of Data	Tahular Data No. 2 Revised: December 22

	l abular	Data N	0. 2, Ke	VISEd: L	Jecembe	<u> 122, 19</u>	99, Nau	ona	insportal	sate	Board	-		:			- 6	- F	
	Time (seconds)	ALTC (FEET)	Elevator Position Left (degrees)	Rudder Position (lower) (degrees)	Aileron Position R inbd (degrees)	Flap pos Trailing LInbd (degrees)	Flap pos Trailing JUTBD (degrees)	Edge Set] (disc	Leading Edge Lt. Set 2 (discrete)	ng Lt. rete)	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)			everser ng 4 1-T/R)
	20:19:27	-2430	4	-3.5	- 18	10.8 10.7 10.8	9.9 7.9	Ext Trans		Ext n/a	Ext Trans		Ext Ext	Ext Ext	Ext Ext	Stow	Stow Stow	Stow	Stow Stow
	20:19:28	-2700			-21 -9	10.7 10.8	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Ext				Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
	20:19:29 20:19:30	-2700 -2700 -2700	м wn	-2.6 -2.9 -3.2	11 - 9 - 16	10.7 10.7 10.8 10.8 10.8	, , , , , , , , , , , , , , , , , , ,	Ext Ext Ext	Ext Ext Ext			Ext Ext Ext	Ext Ext Ext	Ext Ext Ext	EXt EXt EXt	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	20:19:31	-2700	т	-1.2	11	10.6 10.7	ത. ത. ത ത. ത. ത	EXT				Ext Fxt	Ext Fxt	EXt	Ext Fxt	Stow	Stow	Stow	Stow
	20:19:32	-2700 -2835			-22 -10	10.7 10.8 10.8		Ext				Ext	Ext	EXT	Ext	Stow	Stow	Stow	Stow
	20:19:33 20:19:34	-2700 -2700 -2835			-23 -83 -8	10 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		Ext Ext Ext				Ext Ext Ext	Ext Ext Ext	EXt EXt EXt	Ext Ext Ext	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	20:19:35 20:19:36	- 2835 - 2835 - 2835				10.7 10.7 10.7 10.8 10.8 10.7 10.8	00000000000000000000000000000000000000	EXT EXT EXT				EXt EXt EXt	Ext Ext Ext	Ext Ext Ext Ext	Ext Ext Ext	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	20:19:37	-2970		-2.9	- 14	10.7 10.8	@ @ 6 6	Ext Ext				Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	20:19:38	-3105 -3105	4- -4	-2.5 -2.5	- 10 - 4	10.7 10.8 10.7	00000 00000	Ext	Ext			Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
	20:19:39	-3240	-5.3	-2.4	27.6	10.8		Ext	Ext			Ext	Ext Ext	Ext	Ext Ext	Stow	Stow Stow	Stow	Stow
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	20:19:40	-3375	9- 2-	5-5-3-0 5-5-3-0	90	10.7 10.7 10.7	2.00 2.00 2.00	Ext	Ext			Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	20:19:41	-3510	L -	-2.2		10.8 10.7 10.7	9.7 9.7 9.7	Ext Ext				Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	20:19:42	-3510 -3240	<u>L</u> - L -	-2.5 -2.1 -1.8	3 27	10.7 10.8 10.3	000 000	Ext	Ext			Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
:44 -:2700 -6.7 -:2.6 -5.7 10.7 9.8 Ext Stow Stow	20:19:43	-3105	-					Ext Ext				Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
:45 -1890 -5.7 -2.4 -6.1 10.7 9.8 Ext	20:19:44	-2700 -2295	9- -9	-2.6 -2.6		10.7 10.7 10.7		Ext	Ext	ш		Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	20:19:45	-1890			9-1-	10.7 10.3		Ext Ext				Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
0 -3.8 -2.1 -15.0 10.7 9.8 Ext	20:19:46	-1485 -810			- 14	10 7 10 8 10 8		Ext			Ext	Ext	EXT	Ext	Ext	Stow	Stow	Stow	Stow
675 -2.5 -1.7 0.0 10.7 9.7 Ext Stow Stow	20:19:47	0	ς. Γ	-2.1				EXt EXt				Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow
2160 -0.9 -1.9 -1.0 10.7 9.8 Ext	20:19:48	675 1350	-1	-1.7				Ext				Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
2835 -1.7 -2.1 4.9 10.7 9.7 Ext	20:19:49	2160	0-	-1.9	-			EXT				Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
	20:19:50	2835 3510	<u>.</u>	22 22 10 20 20 20 20 20 20 20 20 20 20 20 20 20		10.7 10.7	0.00	Ext	Ext			Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow

TWA Fit. 800, B747-131, Takeoff to End of Data Tahular Data No. 2, Revised: December 22, 1999, National Transo		National Transn
	"WA Flt. 800, B747-131, Takeoff to End of Data	ahular Data No 🤌 Revised: December 22, 1999

Time ALTC Elevator Rudder Alleron Flap pos I posttion Posttion Posttion Teating (Left (10%er) R inbd Inbd (seconds) (FEET) (degrees)(degrees)(degrees)	ALTC (FEET)	Elevator Position Left (degrees)	Rudder Position (lower) (degrees)	Aileron Position R inbd (degrees)	Flap pos Trailing Inbd (degrees)	-lap pos [railing)UTBD (degrees)	Leading Edge Lt. Set 1 (discrete)	Leading Edge Lt. Set 2 (discrete)	ing Lt. 3 crete)	ading ge Lt. et 4 iscrete)	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)
20:19:51	4320	-1.7	-2.2 -2.4 -2.5	5.9	10.7 10.7 10.8	►.66 6.66	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:19:52	4995 5670	-1.1 -1.7		3.9		୦୦୦	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
20:19:53	6210	- 1	-1.9 -1.9 -1.8 -1.9	3.2	10.8 10.7 10.6	0.00 0.00 0.00	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:19:54	7425	-1.2	-1.9 -1.9 -1.9	. o	10.7 10.6		Ext					Ext	Ext	Ext	Stow	Stow	Stow	Stow
20:19:52	/965	36.9	-1./ -1.6 -1.5	2.6	10 / 10 7 10 7 10 7		Ext	EXT	Ext	EXT EXT	Ext	Ext	EXT	Ext	Stow	stow Stow	Stow	stow Stow
20:19:56	8370 8910	-1.7 -2.1		1.6	10.7 10.7 10.7	000 000	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
20:19:57	9180	-2		-2.4 27.2	10.7 10.7		Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:19:58	9585 19710	-1.8		4.3	10.7 10.8 10.6	0.000 0.000 0.000	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
20:19:59	10260	-1.7		-0.4 -1.0	10.7 10.7 10.6	0.00 0.00	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:20:00	10530 11880	-2.1	-1.3	-0.4	10.7 10.7 10.7	0.00 0.00 0.00	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
20:20:01	11070	-2.5	-1.5 -1.2 -1.3 -1.5	0.0	10.6 10.6 10.6	0.00.1-0 0.00.0-0	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow	Stow	Stow	Stow
20:20:02	11340 11610	-2.1	-1.6 -1.6	1.2	10.6 10.7	0.0 0.0	Ext	Ext	Ext	. Ext	Ext	Ext	Ext	Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:20:03	11745	-2.4 -2.1	-1.7	-0.4 -3.0	10.7 10.7	0000 000	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
20:20:04	12015 12285	-2.1		-8.3	10.6 10.6 10.7		Ext	Ext	Ext	Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:20:05	11745	-2.2 -2.1	-1.5 -1.5 -1.5	-6.3 -3.7	10.7 10.7 10.6	0.0.0. 0.0.0.	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
20:20:06	12555 12825	-2.1		-8.3	10.7 10.6 10.7		Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:20:07	12960	-1.9	-1.9 -1.8 -1.5	6- 6.8- 6.6	10.6 10.6	0.000 0.000	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
20:20:08	13095	-1.8	-1.1 -0.9 -0.8	-10.7			Ext Ext	Ext Ext	Ext Ext	Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:20:09	133.65 133.65	-1.6 -1.7		0.0 -2.4	10.6 10.7	0000 0000	Ext	Ext	Ext	. Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
20:20:10	12825		-0.8 -1.0			n n n n n n n n n n n n n n n n n n n						Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow
70: 70: TT	13770 13770	-1.3	-1.3 -1.3 -1.3	-4./		ກ ຫຼື ຫຼື ຫຼື ຫຼື ຫຼື ຫຼື ຫຼື ຫຼື ຫຼື ຫຼື	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	STOW	STOW	STOW	STOW
20:20:12 20:20:13	13905 13905	-1.7	-1.3 -1.3	-15.0 -14.8	10.6 10.5	၈ တ တ တ တ ၈ တ တ တ တ ၈	Ext Ext Ext	Ext Ext Ext	Ext Ext Ext	Ext Ext Ext	Ext Ext Ext	Ext Ext Ext	Ext Ext Ext	Ext Ext Ext	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow
	14040	-		۹- -		ວ. ເ			-					-				

÷	ŀ
fe	I
Š	
Ē	ŀ
<u>0</u>	Ŀ
at	I
5	I
ğ	ŀ
SU	ŀ
<u>n</u>	ſ
- H	I
al	ŀ
2	l
ati	ľ
Ž	I
ດົ	
ğg	i
°90	I
Ľď.	I
00	
Бд	i
ЪĄ	I
0	I
Ξő	ŀ
۵Ğ	ŀ
¥.	I
ъъ	ŀ
<u>s</u>	ľ
e S	F
ᅮᅂ	l
52	I
Èo	ł
<u>ش</u> حّ	ľ
0 g	k
at 80	ŀ
	l
TWA Flt. 800, B747-131, Takeoff to End of Data Tabular Data No. 2, Revised: December 22, 1999, National Transportation Safety	
A D	I
ac≤	I
\vdash	ŀ

Tabular	. αυυ, ⊓ Data Ν(5/4/-13 0.2, Re	l, lake vised: D		r 22, 19	Nat	onal	insportat	Transportation Safety Board	ty Board								
ime seconds)	ALTC (FEET)	Elevator Position Left (degrees)	Rudder Position (lower) (degrees)	Time ALTC Elevator Rudder Aileron Flap pos Flap Position Position Position Position Trailing Trail Position Position Position Tabu (10wer) R inbu Inbu (seconds) (FET) (degrees) (degrees) (degrees) (degr	Flap pos Trailing Inbd (degrees)	pos ing ees)	Leadir Edge l Set l (discr	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)
20:20:14	14175	-1.2	-1.1	-14.6	10.7 10.6	တ်တ်တ	Ext Fxt	Ext Fxt	Ext F xt	EXT	EXt Fxt	Ext Fxt	Ext Fxt	EXt Fxt	Stow	Stow	Stow	Stow
20:20:15	13500 14310	-1.1 -0.8	1122	-14. -14.	10.6 10.7 10.7		EXT				EXT	EXT	EXT					Stow
20:20:16	14445	-1.3	-1.1	9	10.6 10.6	പ്പ	Ext	Ext Ext	Ext	Ext	Ext Ext	Ext	Ext	Ext	Stow	Stow Stow	Stow Stow	Stow Stow
20:20:17	14445 14580	-1.3 -1	11.2	-3.0 -5.3	10.6 10.7	ရက် ရက်	EXT				Ext	EXT	EXt					Stow
20:20:18	14715	-0.8	1.1.1 0.0.1.0	-9.3 2.2	10.5	တ်တ်တ်ဝ	EXT	EXt EXt Ext	EXT EXT	EXT	EXT EXT C	Ext Ext	EXT	EXt EXt EXt	Stow Stow 5+0:	Stow Stow	Stow	Stow Stow
1	14175	- 0	-1.1 -0.9	- 5 - 7	10 6 10 6	ماضام						LAL						MOTO
20:20:20	14985	0.4	0.0- 0.0-	0.6	10.6 10.6 10.7	ත්ත්ත්	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:20:21	15120 15120	0.3	-1.0 -1.1 -1.2	0.0	10.6 10.7	66	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
20:20:22	15255	0.5	-1.3 -1.3 -1.3	5.3	10.6 10.7 10.7 10.7 10.7		Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow	Stow Stow	Stow Stow
20:20:23	15255 15525	0.6	 2.0.1.1.	-2.0 -3.7	10.6 10.6 10.6	୶୶୶	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
20:20:24	14715	0.6	-1.1	-1.4	10.7 10.6 10.7	തത്ത തത്ത	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow	Stow Stow	Stow Stow
20:20:25	16065 15525	0.7	0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-	2.6	10.6 10.7 10.6	00000 00000	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
20:20:26	15525	0.5	-0.5	1.6	10.6 10.6	8.8. 6.6	Ext Ext	Ext Ext	Ext Ext	EXT	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:20:27	15525 15930	0.6	-0.5 -0.5	3.9	10.6 10.5	0000 0.000	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
20:20:28	15660	-0.2	-0.7	-2.0	10. / 10. 6		Ext Ext	Ext Ext	Ext	Ext	Ext Ext	EXt	Ext	Ext Ext	Stow	Stow Stow	Stow Stow	<u>Stow</u> Stow
20:20:29	15660 15660	-0.4 -0.1	-0.7 -0.7 -0.7		10.6 10.5 10.6		Ext				Ext	Ext	Ext	Ext	Stow			Stow
20:20:30	15660	-0.2	-0.7	-6.3 -2.6	10.6 10.6 10.6		Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow	Stow Stow	Stow Stow
20:20:31	15795 15795	-0.2		-2.4	10.6 10.7	0.0.0 0.0.0	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
20:20:32	15795	0.5	-0-4	-2.0 8.3	10.6 10.6	- 9 - 9 - 9	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow	Stow Stow
20:20:33	15795 15795	-0.2	-0.5 -0.5 -0.7	-1.6	10.6 10.7	00 00 00	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
20:20:34	15795	-0.2	8.0- 6.0-	-2.6	10.6 10.7 10.7	0.000 V.000 V.00 V.00 V.00 V.00 V.00 V.	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:20:35	15795 15795	-0.2 -0.1	0.0- 0.0-	-2.6	10.6	6.6 8.8	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	. Stow	Stow
20:20:36	15930	-0.7	6.000 6.000	-2.6 -2.4	10.7 10.7 10.6	90.00 0000	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow	Stow	Stow Stow
20:20:37	15930	0.2	-0.9	-2.0	10.6	9.6	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow

	National Transnor
TWA Fit. 800, B747-131, Takeoff to End of Data	Tabular Data No. 2. Revised: December 27, 1999

20:20:38		Left	Position (lower)	Position R inbd	Trailin Unbd	G Trailing E	Leading Edge Lt. Set 1	ing Leading Leading Lt. Edge Lt. Edge Lt. 1 Set 2 Set 3	Leading Edge Lt. Set 3	Leading Edge Lt. Set 4	Leading Edge Rt. Set 1	Leading Edge Rt. Set 2	Leading Edge Rt. Set 3	Leading Edge Rt. Set 4	Reverser Eng 1	د	6	Reverser Eng 4
20:20:38 20:20:39	(TEEL) ((degrees)	(degrees)	(degrees)	(degree:	(degrees)	(discrete)	(discrete)	(discrete)	(discrete)	(discrete)	(discrete)	(discrete)	(discrete)	(1-T/R)	(1-T/R)	(1-T/R)	(1-T/R)
20:20:39	15930	0 0 7 r			10.6	9.7	Ľ	Ľ	L	1	,	1						
20:20:39	0000		 	-2.0	10.0	01-00	Ext	EXT	EXT	EXT	Ext Ext	Ext Ext	Ext	Ext Ext	Stow	Stow Stow	Stow	Stow
	16065 16065	0.7 0.6		-2.0	10.6 10.6 10.7	000 000	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
20:20:40	16200	1	-0.6 -0.7 -0.7	-1.0 6.9		8.6 8.6 8.6	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow	Stow	Stow	Stow Stow
20:20:41	16200 16335	0.7	-0.7 -0.7 -0.9	-1.6	10.6 10.6 10.7	000 0.000	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
20:20:42	16335	0.7	-1-0 -1-1-0	-2.0	10.6 10.7 10.6	9.6 9.6 9.6	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext	EXT EXT	Stow Stow	Stow Stow	Stow	Stow Stow
20:20:43	16335 16470	0.7		-2.0	10.7 10.6 10.7	0.00 √.8.8.	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
20:20:44	16470	0.7	0.5	-1.0 8.7	10.6 10.7	9.6 8.6 8.8	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext	Ext Ext	Ext Ext	Stow	Stow	Stow	Stow
20:20:45	16605 16605	0.6	-0.6	-3.0	10.6	0000	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
20:20:46	16605	0.7 0.5	-0.9	-3.0	10.6 10.7	9.7 8.6	Ext Ext	Ext Ext	Ext Fxt	Ext	Ext	Ext	Ext	Ext	Stow	Stow		Stow
20:20:47	16605 16605	0.2	2.0- 7.0- 7.0-	-2.0	10.5 10.7 10.6 10.7	0000 	Ext	Ext	Ext	Ext	Ext Ext	Ext	Ext	Ext Ext	Stow	Stow	Stow	Stow Stow
20:20:48	16740	-0.1 -0.5	-1.0	6.5 5.9	10.6 10.7 10.6	0.00 0.00	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
20:20:49	16740 16740	-0.4	-1.3	8.9	10.7 10.6 10.6	8.6 7.6 8.8	Ext Ext	Ext Ext	Ext	Ext Ext	Ext Ext	Ext Ext	Ext	EXt	Stow	Stow	Stow	Stow
20:20:50	16740	-0.4 -0.3	-1.5 -1.7 -1.6	12.0 8.1	10.6 10.7 10.6	0000	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
20:20:51	16740	-0.2	-1.5	8.1	10.6 10.7		Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:20:52	$16740 \\ 16740$	-0.4 -0.4		4.9 14.2	10.6 10.6 10.6	000 0.1-0	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
20:20:53	16875	-0.4	-1.2	5.5	10.7 10.7 10.7	6.6 0.0	Ext	Ext Fxt	Ext Fxt	Ext Fxt	Ext Fv+	Ext Fvt	EXt Ext	Ext c+t	Stow C+ ACU	Stow 5+2:	Stow	Stow
20:20:54	16875 16875	0.0	1.1.2	15.6 15.0	0.9 0.1	000 1.1.0	Ext	Ext	Ext	Ext	Ext	Ext	Ext	EXt	Stow	Stow	stow	Stow
20:20:55	16875	-0.2	-1.2	7.5	0.1	000	Ext Ext	Ext Fxt	Ext Fxt	Ext 5 <t< td=""><td>Ext 5<</td><td>EXt</td><td>EX 1 1</td><td>Ext</td><td>Stow</td><td>Stow</td><td>Stow</td><td>Stow</td></t<>	Ext 5<	EXt	EX 1 1	Ext	Stow	Stow	Stow	Stow
20:20:56	16875 16875	-0 1 -0 4	-1.2 -1.2 -1.1	6 6 9 2 7	6.7 5.8 5.8	6.4 6.4	Ext	Ext	Ext	Ext	Ext	Ext	EXt	Ext	Stow	Stow	Stow	Stow
20:20:57 20:20:58	16875 16065 16875	-0-4 -0.4	1.1- 	4 4 0 0 0	00000 00000 0000	∾∾∾∾∾ ∾∾40~	Ext Ext Ext	Ext Ext Ext	Ext Ext Ext	Ext Ext Ext	Ext Ext Ext	Ext Ext Ext	Ext Ext Ext	Ext Ext Ext	Stow Stow Stow	Stow Stow Stow	stow Stow Stow	Stow Stow Stow
20:20:59	16875	-0.4	-1.0 -1.0	16.2	000 1040	22.5 2.1 2.1	Ĕ	ĒXt	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
20:21:00	16875 16875	-0.4 -0.7	0.0- -0-7-0-	4.3 13.0	0000 0000	2.217	EXT	EXt	Ext	EXt	EXt	EXt EXt	EXt EXt	Ext	Stow	Stow	stow stow	Stow Stow

	Ē
	National
Data	1999
ofl	2
TWA Flt. 800, B747-131, Takeoff to End of Data	December
Take	sed:
-131,	Revi
B747	ر م
.800,	Data
A FIt.	Jular
₹	Tab

Position Position Trailing Trail (seconds) (FET) (lossition Reinda DM DM 20:21:01 16875 -1.3 -0.5 6.3 5.1 0.1 20:21:01 16875 -1.3 -0.5 6.9 5.1 0.5 20:21:02 16875 -1.2 -0.5 6.9 5.1 0.5 20:21:03 16875 -1.2 -0.5 6.9 5.1 0.5 20:21:03 16875 -1.2 -0.5 6.9 5.1 0.5 20:21:04 16740 -0.7 -0.7 4.9 5.2 0.7 20:21:05 16875 -0.7 -0.7 4.9 5.2 0.7 20:21:05 16740 -0.7 -0.7 4.9 5.2 0.7 20:21:05 16740 -0.7 -0.7 4.9 5.2 0.7 20:21:06 16740 -0.7 -0.7 4.9 5.2 0.7	on Position) R inbd es)(degrees)	Trailing Tr	140.0	14 E					E 1 - 2 2 0 1				· ·)) ·) ·) /		10000
		Inbd (degrees)	UTBD Science ((Set 1 Side ((Euge LL. Set 2 (discrete)	Edge Lt. Set 3 (discrete)	Edge Lt. Set 4 (discrete)	Edge Rt. Set 1 (discrete)	Edge Rt. Set 2 (discrete)	Edge Rt. Set 3 (discrete)	Edge Rt. Set 4 (discrete)	Eng 1 (1-T/R)	Eng 2 (1-T/R)	Eng 3 (1-T/R)	Eng 4 (1-T/R)
	4	ى ى ا	5.0	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow
1 61	-0.5 6.9 -0.5 6.9	- 0 - 1 - 1 - 0 - 1 - 1	0.00	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext			Stow	Stow
6.1	0.6 17.4	ոսս	5.2	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
	-0.7 -0.7 -0.7 -0.7 4.9	വവവ	.020 .020	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
	0.7	വവവ	2.2	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
	-0.7 4.9 -0.7 4.5 -0.7 4.5	പവവ	0.50 0.50	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
6.0-	-0.9 4.3		0.0 0.0 0.0	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
-0.8			5.0	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
<u>۲.</u>	- 4	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow	Stow Stow	Stow Stow	Stow Stow
	-0.9 4.3	202	5.0	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
9.9	0.9 0.8 -9.7	വവവവ		Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
	-0.8 -0.8 -0.8 -0.7	200	2.20	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext			Stow	Stow
-0.4	0.6 0.6	പറ	5.2 5.9 5.1	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
	-0.4 -0.5 -0.4	4444	444 8.54	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
- 0.7	0.5 -0.4	t w	4.7	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
-0.4	-0.5 -0.7 -0.5	000	4 4 4 4 0 1	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
-0.4	0.0 -8.3	2.7 2.7		Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow	Stow	Stow	Stow Stow
-0.4	0.2 0.5 -7.9 0.5		0.29 9.29 9.29 9.29 9.29 9.29 9.29 9.29	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
-0.2	0.5 0.5 0.5 -7.9 -8.3	2 2 5	2.9	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow	Stow
-0.2			6.0.0 6.0.0 6.0.0	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext			Stow	Stow
-0.2	0.7 -9.7 0.7 -9.7 0.6 -9.7	2.2	2.5	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
-0.3	0.6 -9.3	2.1 22	2.5	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
-0.4	0.3 -8.7 0.3 -8.7 0.3 -9.3	0.010	0000	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow

	S, of
	Transnortation
	National
TWA Flt. 800. B747-131. Takeoff to End of Data	ahiilar Data Nn 2 Revised: December 22 1999

Position Position Ire (lower) R inbd Int (degrees) (degrees) (dd 0.2 -11.4 0.2 0.2							с 10 10 10 10	1 - D+				5 n n 2	1 2 2 2
	Inbd 0UTBD (degrees)	Edge Lt. Edge Lt. Set 1 Set 2 (discrete) (discr <i>e</i> te		Edge LL. Edg Set 3 Set (discrete)(d'	Edge LL. Ed Set 4 Se (discrete) (d	Edge KL. Ed Set 1 Se (discrete) (d	Set 2 Set 2 (discrete)	Set 3 (discrete)	сиуе ки. Set 4 (discrete)	сия т (1-Т/R)			сия 4 (1-Т/R)
	1.7 2.0 1.7 2.2	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
	1.6 1.9 1.6 2.1	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext	Ext Ext	Stow Stow	Stow Stow	Stow	Stow
0.6 -9.7		Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
-0.8 -0.8 -10.7 -0.8 -12.4		Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow	Stow	Stow	Stow
-0.8 -11.2	200	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
-0.9 -9.7 -0.9 -9.7 -1.2 -10.7	1.1 1.1 1.1 1.6	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
-1.9 -7.3		Ext	Ext	Ext	Ext	Ext Ext	Ext Ext	Ext Ext	EXt EXt	Stow Stow	Stow Stow	Stow Stow	Stow
-1.9 -1.8 -1.7	0.9 0.9 0.8	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
-1.6 4.9	2000	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow
-1:3 -1:4 0.0	7 7 0	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
-1.3 -9.7	0.7 1.0	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
-1.3 -1.3 -7.3	00		Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow		Stow	Stow
-1.0 -1.1 -1.1 -5.7	0.5 0.5 0.7 0.7 0.7 0.7	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	Ext Ext	EXt EXt	Stow Stow	Stow Stow	Stow Stow	Stow
-0.7 -0.6 -9.3 -0.5 6.9	ৰৰৰ	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow	Stow	Stow	Stow
-0.6 5.7 -0.7 4.9 -0.6 6.9	0.4 0.3 0.4 0.5 0.5 0.5 0.5	Ext Ext Ext Ext	Ext Ext Ext	Ext Ext Ext	Ext Ext Ext	Ext Ext Ext	Ext Ext Ext	Ext Ext Ext	Ext Ext Ext	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow
1	0 0 0		Ext	Ext	Ext	Ext	Ext	Ext	Ext	Stow Stow		Stow Stow	Stow
-0.4 -0.5 6.5 -0.5 6.9 -0.7	0000	Trans Trans	Ext Ext	Ext Ext	Ext	Trans Trans	Ext	Trans Trans	EXt EXt	stow Stow	stow Stow	Stow	Stow
-0.8 -0.9 -0.9 -0.9 -8_7	2110	Trans Trans Trans	Ext Ext Ext	Ext Ext Ext	Ext Ext Ext	Trans Trans Trans	Ext Ext Ext	Trans Trans Trans	Ext Ext Ext	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow
-0.9 -0.9 -0.9 -0.0			+	+× 	Ex+	L L	Fxt	Trans	Fxt				Stow
1		Trans Trans Trans	EXT	TTT TTT	EXT	Trans Trans	Ext	Trans Trans	Ext Ext	Stow Stow	Stow Stow	Stow	Stow
-1.1 -1.1 -1.1		Trans Retrct	Ext Trans	Ext Ext	Ext Trans	Trans Trans	Ext Trans	Trans Retrct	Ext Trans	Stow Stow	Stow Stow	Stow Stow	Stow
-1.1 -1.1 -11.8 -1.1 -9.3	0.0	Retrct	Trans	Trans	Trans	Retrct	Trans	Retrct	Trans	Stow	Stow	Stow	Stow

	Transc
	National
TWA Flt. 800, B747-131, Takeoff to End of Data	lar Data No. 2 Revised: December 22, 1999. N
ΤW	Tab

Time ALTC Elevator Rudder Aileron Flap pos Flap	Elevator	Rudder	Aileron	Tap pos	Flap pos	eading	Leading	Leading	Leading	Eedu IIIg	Ledd Ing	Fedd 109	Feat Ing				
(seconds) (FEET)		Position (lower) (degrees)	osition R inbd (degrees)	Irailing Inbd (degrees) (lrailing E OUTBD 5 (degrees) (Edge Lt. B Set 1 (discrete)	Edge Lt. Set 2 (discrete)	Edge Lt. Set 3 (discrete)	-dge Lt. Set 4 (discrete)	edge Kt. Set 1 (discrete)	Edge Kt. Set 2 (discrete)	-dge Kt. Set 3 (discrete)	Edge Kt. Set 4 (discrete)	Eng I (1-T/R)	Eng 2 (1-T∕R)	Eng 3 (1-T/R)	Eng 4 (1-T/R)
20:21:48 999	0.3		-5.3	00	0.0	Ret rct Ret rct	Trans Trans	Trans Trans	Trans Trans	Retrct Retrct	Trans Trans	Ret rct Ret rct	Trans Trans	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:21:49 9720 9450	0.4 0.4	4 -1.1 -1.0	-3.0 -9.3	000	0000	Retrct	Trans	Trans	Trans	Retrct	Trans	Ret rct	Trans	Stow	Stow	Stow	Stow
50 8370	0.	5 -1.0	-10.7	000	0.000	Ret rct Ret rct	Trans Trans	Trans Trans	Trans Trans	Retrct Retrct	Trans Trans	Ret rct Ret rct	Trans Trans	Stow Stow	Stow Stow	Stow Stow	<u>Stow</u> Stow
20:21:51 8775 8505	75 0.2 0.2	2 0.0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0	-9.3	000	0000	Retrct	Trans	Trans	Trans	Retrct	Trans	Ret rct		Stow	Stow	Stow	Stow
20:21:52 8370	0 0.3	3 -0.9 -0.9	-11.4		000 000	Ret nct Ret nct	Trans Trans	Trans Trans	Trans Trans	Retrct Retrct	Trans Trans	Ret rct Ret rct	Trans Trans	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:21:53 7965	55 0.3 50 0.3	3 -1.0 0 -1.0 0 -1.0	-10.3	0000	0.000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:21:54 7560	0.2	2 -0.9 -1.0	-11.4 -13.4	000	000	Retrct Retrct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
55 6750 6885		0 1.0 0 0.9 - 0.9	-1.0	000	0000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:21:56 6615		0.0-	3.0	000	000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:21:57 6345 5940		6.0- 0- 0- 0	-12.4	000	000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:21:58 5535		0	-5.7	000	000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:21:59 5130 4455	50 0.2 55 0.2			00	0.0.0	Retrct	Retrct				Retrct				Stow	Stow	Stow
20:22:00 4320	0.3	8.0- 6.0- 6.0- 6.0-	-9.1 -12.4	0000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:22:01 3915 3375	15 0.4 15 0.2		-10.7	00	0000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:22:02 2970	0.0		-10.7	0000	0.000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Retrct Retrct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:22:03 2430 1755	50 0.4 55 0.4		-10.7	00	000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
04 1215	15 0.2	2 -0.9 -0.9	-12.0 -11.4	0000	0000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:22:05 810 270	0.1	0 -0.8 -0.9 -0.9	-8.7	000	000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
-270	0	1 0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-	6.9 0.6	000	000	Ret nct Ret nct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Ext	Ret rct Ext	Retrct Ext	Stow Stow	Stow Stow	Stow Stow	<u>Stow</u> Stow
20:22:07 -810 -1350	0.3		5.9	000	000	Retrct	Ext	Ext	Ext	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:22:08 -1890	0	0 -0.9 1 -0.8 1.8	5.9 7.5	00	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:22:09 -2565	55 0.2 05		5.9	0000	0.000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:22:10 -3780	30 0.1 0.1		4.3	0 (0.0	Retrct	Retrct	Trans	Retrot	Ratrot	Datrot	+04 +04	Datrot			ł	10+0

	National Tran
TWA Fit. 800, B747-131, Takeoff to End of Data	Tabular Data No. 2. Revised: December 22 1990

10 Table 11/11/11 Table 11/11 Table 11/11/11	Time	Time ALTC EI	evator	Rudder	Aileron	āp pos	bos		9 Leading Lead		ind leading	pading	padipeo	ond the	0.00	- F	- 6		
1 1	(seconds)		Position Left	Position (lower)	Position R inbd	Trailing Inbd	Trailing E	Edge Lf.	Edge Lt. Set 2		Edge Lt.	Edge Rt.	Edge Rt. B	Edge Rt.	Edge Rt Set A			Keverser Eng 3	Reverser Eng 4
$ \left[\begin{array}{cccccccccccccccccccccccccccccccccccc$			(saaukan)	(degrees)	(degrees)	(degrees)	(degrees) ((discrete)	(discrete)	C	(discrete)	(discrete)	(discrete)	discrete)					(1-T/R)
1 540 0.1 0.10	20:22:11	-4320		-0-7 -0.7	6.5		000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stor Stor
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	20:22:12	-5400			- 13.4	0000	0000	Retrct	Retrct Retrct	Trans	Retrct Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
0 0.0	20:22:13	-5805 -6345		-0-7 -0-7	-12.0	<u> </u>		Ret nct	Retrct	Trans	Retrct	Retrct Retrct	Retrot Retrot	Ret rct Ret rct	Retrct Retrct	Stow	Stow	Nots to	Stow
6 373 0.1 100	20:22:14	- 6885		<u></u>	-12.4 -14.4	0000	0.0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrot	Retrot	Stow	Stow	Stow	Stow
6 0.1		-7425 -7830		-0.7	- 14.6	5 O C		Ret nct Det nct	Retrct	Trans	Retrot	Retrot	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
1 313 0.2 0.0 16.0 0.0 Marce: M	20:22:16	-8370	0.3	000	-14.6	<u> </u>		Retrot	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
0 -3330 0.1 -0.0 0.0 Merrici Refrict Ferrici Refrict Refrict Refrict Refrict Refrict Solution S	20:22:17	-8775	0.2	-0-8 0-7 0-7	-16.0	0000	0.000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct	Retrot	Ret rct	Retrct	Stow	Stow	Stow	Stow
9 -0.2 -0	20:22:18	-9180 -9450	0.1	-0-7	-13.0 8.1	000	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrot	Retrct	Retrct	Stow	Stow	Stow	Stow
0 -1013b 0.2 -0.2 0.2 Antroc Matrice	20:22:19	-9855	0.2	0000 0000		000	0000	Retrct Retrct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Retrct Retrct	Retrct Retrct	Stow	Stow	Stow	Stow Stow
1 11000 0.4 0 0.0 Berrer: Trans Berrer:	20:22:20	- 10125 - 10530	0.2 0.3	0000	- 16.6	000	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
11435 0 0.0 Retrict Stow S	20: 22: 21 20: 22: 22	-10800 -11070 -11340	0.2 0.2	0 - 0 - 0 - 0 - 0 - 0 - 0 - 0	2.0 -17.0 -16.0	000000	0.00000	Ret rct Ret rct Ret rct	Retrct Retrct Retrct	Trans Trans Trans	Retrct Retrct Retrct	Retrct Retrct Retrct	Retrct Retrct Retrct	Retrct Retrct Retrct	Retrct Retrct Retrct	Stow Stow Stow	Stow Stow	Stow Stow	Stow Stow
4 -11145 0 0.0 Berrit Retrict Retrict Retrict Retrict Retrict Stow Stow 5 12130 0 1 10.9 <t< td=""><td>20:22:23</td><td>- 11475</td><td>0</td><td>-0 - - 0 - 0</td><td>-13.0</td><td>0000</td><td>0.0</td><td>Retrct</td><td>Retrct</td><td>L Tank</td><td>Retrot</td><td>Retrot</td><td>Retrot</td><td>Retrot</td><td>Retrct</td><td>Stow</td><td>Stow</td><td>Stow</td><td>Stow</td></t<>	20:22:23	- 11475	0	-0 - - 0 - 0	-13.0	0000	0.0	Retrct	Retrct	L Tank	Retrot	Retrot	Retrot	Retrot	Retrct	Stow	Stow	Stow	Stow
5 -12150 0.1 -0.9 -14.4 0 0.0 Refrict Fains Refrict	20:22:24	- 11745 - 12015	00	00000	-20.1	0000	00000	Retrot	Retrot	Trans	Retrct	Retrot	Retrot	Retrct	Retrct Retrct	Stow	Stow Stow	Stow Stow	Stow
7 -12825 0 -0.0 -14.4 0 0.0 Retrict Retrict Retrict Retrict Retrict Stow Stow <td>20: 22: 25 20: 22: 26</td> <td>-12150 -12420 -12555</td> <td>0.1</td> <td>000000</td> <td>-14.4 -21.5 -20.5</td> <td>000000</td> <td>000000</td> <td>Ret rct Ret rct Ret rct</td> <td>Retrct Retrct Retrct</td> <td>Trans Trans Trans</td> <td>Ret rct Ret rct Ret rct</td> <td>Retrct Retrct Retrct</td> <td>Retrct Retrct Retrct</td> <td>Retrct Retrct Retrct</td> <td>Retrct Retrct Retrct</td> <td>Stow Stow Stow</td> <td>Stow Stow Stow</td> <td>Stow Stow Stow</td> <td>Stow Stow Stow</td>	20: 22: 25 20: 22: 26	-12150 -12420 -12555	0.1	000000	-14.4 -21.5 -20.5	000000	000000	Ret rct Ret rct Ret rct	Retrct Retrct Retrct	Trans Trans Trans	Ret rct Ret rct Ret rct	Retrct Retrct Retrct	Retrct Retrct Retrct	Retrct Retrct Retrct	Retrct Retrct Retrct	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow
3 -12360 0.1 -0.9 -16.0 0 0.0 Ketrict	20:22:27	- 12825	0	0000	- 14.4			Retrot	Retrct	Trans	Retrct	Retrot	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
0 -13365 0 -0.9 -20.1 0 0.0 Retrot Retrot Retrot Retrot Retrot Retrot Retrot Retrot Stow Stow </td <td>20:22:28</td> <td>- 12960 - 13230</td> <td>0.1</td> <td>0.0- 0.0-</td> <td>-16.0 -16.0</td> <td>000</td> <td>0.00</td> <td>Retrot</td> <td>Retrct</td> <td>Trans</td> <td>Retrot</td> <td>Retrct</td> <td>Ketrct Retrct</td> <td>Ret nct Ret nct</td> <td>Retrct Retrct</td> <td>Stow Stow</td> <td>Stow Stow</td> <td>Stow Stow</td> <td>Stow Stow</td>	20:22:28	- 12960 - 13230	0.1	0.0- 0.0-	-16.0 -16.0	000	0.00	Retrot	Retrct	Trans	Retrot	Retrct	Ketrct Retrct	Ret nct Ret nct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	20:22:29	- 13365		- 0 0 0 0 0 0	-20.1	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	etr	Ret rct Ret rct	Retrct Retrct	Stow	Stow	Stow	Stow
-13305 0.2 -0.8 -17.0 0 0.0 Retrot Retrot Retrot Retrot Retrot Retrot Stow Stow<	ne:22:07	- 13770		0 0 0 0 0	-15.6		000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
-14040 0.2 -0.8 -16.6 0 0.0 Retrot Retrot Retrot Retrot Retrot Retrot Stow -14125 0.1 -0.9 -17.0 0 0 0 0 0 20 -13500 0.3 -0.9 -16.6 0 0.0 8etrot Retrot Retrot Retrot Stow Stow -13500 0.3 -0.9 -16.6 0 0.0 Retrot Retrot Retrot Retrot Retrot Stow -13445 0.3 -0.9 -17.4 0 0.0 Retrot Retrot Retrot Retrot Retrot Stow -14445 0.3 -0.9 -17.4 0 0.0 Retrot Retrot Retrot Retrot Stow	20:22:31	- 13905	0.2	0.00	-17.0		0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Retrct Retrct	Retrct	Stow	Stow	Stow Stow	Stow
-13500 0.3 -0.9 -16.6 0 0.0 Retrot Retrot Trans Retrot Retrot Retrot Retrot Retrot Stow Stow -0.9 -17.4 0 0.0 Retrot Retrot Retrot Retrot Retrot Stow Stow -14445 0.3 -0.9 -17.4 0 0.0 Retrot Retrot Retrot Retrot Retrot Stow Stow Stow -14715 0.2 -0.9 -17.4 0 0.0 Retrot Retrot Retrot Retrot Retrot Retrot Stow Stow Stow -14715 0.2 -0.9 -17.4 0 0.0 0.0 Retrot Retrot Retrot Retrot Retrot Retrot Retrot Stow Stow Stow -14715 0.2 -0.9 -17.4 0 0.0 0.0 Retrot Retrot Retrot Retrot Retrot Retrot Retrot Stow Stow -14715 0.2 -0.9 -17.4 0 0.0 0.0 Retrot Retrot Retrot Retrot Retrot Retrot Retrot Stow Stow -14715 0.2 -0.9 -17.4 0 0.0 0.0 Retrot Retrot Retrot Retrot Retrot Retrot Retrot Retrot Stow Stow -14715 0.2 -0.9 -17.4 0 0.0 0.0 Retrot Retro Retrot Retro Retrot Retro Retrot Retro	20:22:32	-14040 -14175	0.2	0.00 0.00 0.00	-16.6 -17.0	0.0	0.0	Retrct	Retrct	Trans	Ret rct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
-14445 0.3 -0.9 -17.4 0 0.0 Retrot Retrot Trans Retrot Retrot Retrot Retrot Stow Stow Stow	20:22:33	- 135 00		6.0- 6.0- 6.0- 6.0- 6.0- 6.0- 6.0- 6.0-	-16.6	0000	0.000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrot	Retrot	Retrct Retrct	Stow	Stow	Stow	Stow
	20:22:34	- 14445 - 14715	0.3	000	-17.4	60	0.0	Ret rct	Retrct	Trans	Ret rct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow

	National Transnoi
TWA Flt. 800, B747-131, Takeoff to End of Data	Tahular Data No. 2 Revised: December 22, 1999

Time ALTC Elevator Rudder Alleron Flap pos Position Position Position Trailing	ALTC	Elevator Position	Rudder Position	Aileron Position	Flap pos Trailing	Flap pos Trailing	Leading Edge Lt.	_eading Edge Lt.	ing Lt.	Leading Edge Lt.	Leading Edge Rt.	Leading Edge Rt.	Leading Edge Rt.	Leading Edge Rt.	Reverser F Eng 1	Reverser Eng 2	Reverser F Eng 3	Reverser Eng 4
(seconds)	(FEET)	Left (degrees)	(lower) (degrees)	<pre>% inbd (degrees)</pre>	(degrees)	DUTBD (degrees)	Set 1 (discrete)	Set 2 (discrete)	Set 3 (discrete)	Set 4 (discrete)	Set 1 (discrete)	Set 2 (discrete)	Set 3 (discrete)	Set 4 (discrete)	R	2	2	(1-T/R)
20:22:35	- 14715	0	6.0- 6.0	-17.4	000	0.0 0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:22:36	- 14985 - 15120	00	v.0- 8.0- 8.0- 9.0-	-16.6	0000	0000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:22:37	- 15255	0	6.0- 6.0	11.4 -5.3	00	0.0	Retrct Retrct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Retrct Retrct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:22:38	- 14445 - 15525	-0.2	5.0.0. 5.0.0.0.	11.0	0000	0000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:22:39	- 15525	0.1	<u>-0-</u>	11.6	00	0.0	Ret rct Ret rct	Retrct Retrct	Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow	Stow Stow	Stow	Stow Stow
20:22:40	-15660 -15795	0.2	0.0- 0.0- 0.0- 0.0-	12	000	0.00	Retrct	Retrct	Trans			Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:22:41	- 15930	0.4	8.0- 6.0-	12.0	000	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:22:42	- 16065 - 15390	0.1	6'0- 8'0- 6'0- 8'0-	-12.0	0000	0.0	Retrct	Retrct			Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:22:43	- 16335	0.1	-0.9 -0.8 -0.8	-21.1	000	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:22:44	-16470 -16470	$\begin{array}{c} 0.1 \\ 0.2 \end{array}$	6.0- 6.0	13.0	000	0.0 0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:22:45	- 16605	0.2	∞.0.0 0.00 0.00	-19.5		0000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:22:46	- 16740 - 16875	0.3	6.0- 6.0-	-15.6	00	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:22:47	- 16065	0.2	v.0-0-0-	$^{-15.0}_{-11.0}$	000	0000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:22:48	-16875	0.2	-0- 0-0-	-14.0	000	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:22:49	-17010		 	-9.7 -14.6		 	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret <i>rc</i> t Ret <i>r</i> ct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:22:50	-17010 -17145	0	6.0- 6.0-	-10.7		0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:22:51	- 17145	$\begin{array}{c} 0.1\\ 0.2\\ 0.2 \end{array}$	0.000 0.000 0.000	-11.4	0000	0000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:22:52	- 16470 - 17145	0.4	0.0- 0.0-	-9.7	000	000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:22:53	- 17145	0.3		-10.3	000(0000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow	Stow	Stow	Stow
20:22:54	-17145 -17010	0.4	8.0- 8.0-	-11.2	000	000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:22:55	-17010	0.4	-0.3	-18.5	000	0.00	Ret <i>rc</i> t Ret <i>r</i> ct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:22:56	- 16875 - 16065	0.3	8.0- 8.0-	-10.7	000	000	Ret rct	Retrct	Trans	Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:22:57	- 16740	0.5	6.0- 8.0-	-10.1	00	0.0	Retrct	Retrct	Trans	Ret rct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow

	National Transnorts
TWA Flt. 800, B747-131, Takeoff to End of Data	Tabular Data No. 2 Revised: December 22, 1999

Time														l eading	Raverser			
(seconds)	ALTC (FEET)	Elevator F Position F Left (degrees)	Rudder Position (lower) (degrees)	Aileron Position R inbd (degrees)	ap pos ailing bd egrees)		Leading Edge Lt. Set 1 (discrete)	Leading Edge Lt. Set 2 (discrete)	Leading Edge Lt. Set 3 (discrete)	_eading Edge Lt. Set 4 (discrete)	Leading Edge Rt. Set 1 (discrete)	Leading Edge Rt. Set 2 (discrete)	Leading Edge Rt. Set 3 (discrete)	Edge Rt. Set 4 (discrete)	Eng 1 (1-T/R)	keverser Eng 2 (1-T/R)	Eng 3 E (1-T/R) (кеverser Eng 4 (1-T/R)
20.22.60	1606		0, 0		000	0.000	0 4 4 0		Locar T								5	to to
QC:77:07	- 16470		 	- 14	00	00	Retrct	Retrct	Trans	Retrct	Retrot	Retrot	ket rct	Retrct	Stow	Stow	Stow	Stow
20:22:59	- 16335	0.2	0.000	-18.0 12.0	000		Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:23:00	- 16065	0.2		-3.4	000	0.0 0.0	Retrct Retrct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:23:01	- 15930 - 15795	0.1	8.0.0.0 9.0.0.0 9.0.0	-1.0 8.7	0000	0.000	Retrct	Retrct	Trans		Retrct	Retrct	Retrct	Retrct		Stow	Stow	Stow
20:23:02	- 15525	0.3	6.0- 6.0-	-9.7	00		Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:23:03	- 15255 - 14985	0.5	9.000 9.000 9.000	-9.3 6.5	000	0000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:23:04	- 14715	0.3	-0.9	-11.4	00	0.0										Stow	Stow	Stow
20:23:05	- 14445 - 14175	$\begin{array}{c} 0.2 \\ 0.1 \end{array}$	6'0- 6'0- 6'0-	-10.3	0	0.0 0.0 0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow
20:23:06	- 13905		0.00 0.00	-8.7	000	000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow	Stow	Stow	Stow
20:23:07	- 13500 - 13095	0.2	6.0 0 0	-10.3	000	000										Stow	Stow	Stow
20:23:08	- 12690	0.2		-9.1	000	000										Stow	Stow	Stow
20:23:09	-12285 -11610	0.3		-8.7	0000	0000	ket rct Ret rct	Retrct	Trans	Retrct	Retrct	Retrot	ket rct Ret rct	Retrct	Stow	Stow	Stow	Stow
20:23:10	-11070	0.3	-1-0-1-0-1-0-1-0-1-0-1-0-1-0-0-1-0	-16.0		0.0										Stow	Stow	Stow
20:23:11	- 10530 - 9855	00		-15.6		0000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow	Stow
20:23:12	-9180	0.4	- 1.1	10.3	000		Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct		Stow	Stow	Stow	Stow
			-1.1			0.0	Ret rct		Trans		Retrct					Stow	Stow	Stow
20:23:13	-8235 -7425	0.5	6.0- 6.0- 6.0-	-20.1	0000	0.000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:23:14	-6480	0.4	-0.8 -0.7	-9.7	000	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:23:15	-5535 -4590	0.3	-0.7 -0.7 -0.8	-9.3 -8.7	000	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:23:16	-3510	0.4	0.0- 0.0-	-9.1	000	000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:23:17	-2565 -1485	00.0	6.0- 	-9-7 -9.3	000(0000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:23:18	-270	0.5	6.0- 6.0	-8.7	000	000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:23:19	810	0.5	9.0- 9.0-	-9.3	0	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:23:20	1755 2835		-0.8 -0.7 -0.7	-15.0	0000	0.000	Ret rct	Retrct	Trans	Ret rct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
	¢ C C	<				0.0					Retrct					Stow	Stow	Stow
20:23:21	3780 4590	0.5	6.0- 8.0-	3.0	00	0.0	Retrct	Retrct	l rans	Ret rct	ketrct	Retrot	Ket rct	Ketrct	stow	Stow	Stow	stow

TWA Fit. 800, B747-131, Takeoff to End of Data Tabilar Data No. 2 Revised: December 22 1999 National Transnort		Transnor
TWA Fit. 800, B747-131, Takeoff to End of Data Tabular Data No. 2, Revised: December 22, 1999		National
\vdash	WA Flt. 800, B747-131, Takeoff to End of Data	abular Data No. 2. Revised: December 22, 1999. N

Tabular	Data N	Tabular Data No. 2, Revised: December	vised: D	sed: December 22, '	22, 19	99, Nat	National Trai	nsportati	ion Safe	Board								
Time (seconds)	ALTC (FEET)	Elevator Position Left (degrees)	A C C C	Aileron Position R inbd (degrees)	0 F 6	Flap pos Trailing DUTBD (degrees)	Leading Edge Lt. E 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 B Eng 2 (1-T/R)	Reverser F Eng 3 (1-T/R)	Reverser Eng 4 (1-T/R)
CC · CC · VC	E 4 0 0	-	0- 0- 0	c c	000	000	+00 	00+00 +00+	L L L	+00 +00	+ + - - -	+ + - -			5		ť	
20:23:22	0400	7.0	0.0 - 0.0	-6.3	00	0.0	Retrot	Retrot	Trans	Retrot	Retrot	Retrot	Retrot	Retrot	Stow	Stow	Stow	Stow
20:23:23	6210 7020	0.2	-0.7	-3.7	000	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:23:24	7560	0.2	-0.7 -0.7	9.9 2.6	000	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:23:25	8235 8235	0.2	0,0,0,0 0,0,0,0 0,0,0,0	-18.5	0000	000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:23:26	9315	0	0.0-0- 0.0-0-	-10.3 -9.7	00	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:23:27	9720 10260	0.2	0000	-10.3	000	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:23:28	10665	0.1	⊃ 0 0 ⊃ 0 0	-11.4	- o c	0.0	Ret rct. Ret rct.	Retrct Retrct	Trans	Retinct	Retrot	Retrct. Retrct.	Ret.rct. Ret.rct.	Retrot	Stow	Stow	Stow	Stow Stow
20:23:29	11070	0	0- 0- 0-	-11.2)o c		Ret.rct	Retrot	a a a a a a a a a a a a a a a a a a a	Ret.rct	Retrot	Retrot	Ret.rct.	Retrot	Stow	Stow	Stow	Stow
0	11340	, c	0,0,0	0 7	00	0.0	+ 	+0 +0	E C			+ + -	+ - -		ť		ť	5
zU: 23: 3U	0/011	7.0	0.0 0.0 0.0	-12.0	> o c		ket rct Ret rct	Retrct	Trans	ket rct Ret rct	Retrct	Retrot	ket rct Ret rct	Retrct	Stow	Stow	Stow	Stow
20:23:31	12015 12285	$\begin{array}{c} 0.1 \\ 0 \end{array}$	0,00 0,00 0,00	-11.4	000	0.000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:23:32	12555	0	n o o o o	-13.4 -11.2	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:23:33	12825 12960	0.1	0-0- 6.0-	-12.0	000	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:23:34	13230	00	0.0.0 0.0.0 0.0.0 0.0.0	-11.8 -11.8	0 6	0000	Retrct Retrct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:23:35	12690 13770	0	6.0- 6.0-	-13.0	00	000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:23:36	13770	0.2	0,0,0,0 0,0,0,0	-13.0 -12.4	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow	Stow	Stow	Stow
20:23:37	13905 14040	0	6.0- 6.0-	-12.4	000	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow Stow	Stow	Stow	Stow Stow
20:23:38	14040	00		-10.3 7.9	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:23:39	14175 13635	0	-1.2	-8.3	000	0.00	Retrct	Retrct	Trans	Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:23:40	1445	-0.2	-1.1 -1.1 -1.0 -1.0	9.7	0000	0.000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:23:41	14445 14580	0	0,0,0 0,0,0	9.7	000	000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow	Stow Stow
20:23:42	14715	00	-0-7 -0.7 -0.7	-14.0 12.0	0000	0000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:23:43	14715	-0.2	0-0-0	10.3	200	0.00 0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow	Stow Stow
20:23:44	14715	0	9.0- 0.0-	10.3	0	0.0	Ret rct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow

Time ALTC Elevitor Rudder Alleron [Flap pos]	ALTC	Elevator	Rudder	Aileron	Flap pos	ge Li	Leading	Leading	j ng	Leading	Leading	Leading	Leading	Leading				Reverser
(seconds)	(FEET)	rosition Left (degrees)	Position (lower) (degrees)	rosition R inbd (degrees)	lrailing Inbd (degrees)	lrailing OUTBD (degrees)	Edge Lt. Set 1 (discrete)	Edge Lt. Set 2 (discrete)	Edge Lt. Set 3 (discrete)	Edge Lt. Set 4 (discrete)	Edge Rt. Set 1 (discrete)	Edge Rt. Set 2 (discrete)	Edge Rt. Set 3 (discrete)	Edge Rt. Set 4 (discrete)	Eng 1 E	Eng 2 E	Eng 3 E	Eng 4 (1-T/R)
20:23:45	14580 14715	-0.2	9.0- 9.0- 9.0-	11.0 7.5	0000	0.000						+0 4 +0 4	+0 0 +0 0	+ 	č	đ	5	ł
20.22.46	14715		0.0	. σ	000	0.0						Retrot	Retrot	Retrot	Stow	Stow	Stow	Stow
	14715	-0.2	6 0 0 0	-17.0	> 0 0		kerrcr	Ketrct	SUBJI	Ketrct	Ketrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20: 23:47 20: 23:48	14850 14850 14850	-0.2	6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00	-9.7 -16.6 -18.0	000000	0000000	Retrct Retrct Retrct	Retrct Retrct Retrct	Trans Trans Trans	Ret rct Ret rct Ret rct	Retrct Retrct Retrct	Retrct Retrct Retrct	Retrct Retrct Retrct	Retrct Retrct Retrct	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow
20:23:49	14715	-0.5	-0.8	-17.4	00	0.0				1		Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:23:50	14715 14715	-0.5		-18.5 -18.5	0000	0000	Retrct	Retrct Retrct	Trans	Retrct	Retrct Retrct	Retrct	Retrct	Retrot	Stow	Stow	Stow	Stow
20:23:51	14715	-0.5	⊃.0.0 2.0.0	-5.7		000	Retrct Retrct	Retrot Retrot	Trans	Retrct Betrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:23:52	14580 14580	-0.6	8.0- -0- 8.0-	-18.0 -18.5	000	0.00				[Retrot	Retrot	Retrot	Retrot	Stow	Stow	Stow	Stow
20:23:53	14580	-0.5	 	-25.1	000	0.0.0					Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:23:54	14580 14580	-0.5	0.0-	-14.0		0.00	ket rct Ret rct	ketrct Retrct	Trans	Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow	Stow	Stow	Stow Stow
20:23:55	14715	-0.4		-18.3	0000	0.0.0.0	Retrct Retrct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:23:56	14715 14850	-0.4 0	-0-8 -0.8 -0.8 -0.7	-16.0 -18.5	000	0.00	Retrct	Retrct	Trans	Ret rct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:23:57	14985	0.2	-0.7 -0.7	-20.1	000	0.0	Retrct Retrct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Retrct Retrct	Retrct Ret <i>rc</i> t	Stow Stow	Stow	Stow Stow	Stow
20:23:58	15120 15255	0.3		-20.5	0000	0000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:23:59	15390	0.2	-0.7	-10.3	00	0.00	Retrct Retrct	Retrct Retrct	Trans Trans	Ret nct Ret nct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow
20:24:00	15525 15660	0.4	2.0- 7.0-	-15.6 -18.0	000	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:24:01	15795	0.4	-0.7	-18.0	000	0.0	Retrct Retrct	Retrct	Trans	Ret not Ret not	Retrct	Retrct	Ret not Bet not	Retrct Dot not	Stow	Stow	Stow	Stow 54 pri
20:24:02	15930 16065	0.3		6.9	000	0.00	Retrct	Retrct	Trans		Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:24:03	16200	0	-0.8	-20.5 -20.1	000	000	Retrct Retrct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow
20:24:04	16335 16470	-0.2	~;0;0;0;	- 18.5	0000	0.000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:24:05	16605	-0.2	0.00	-14.8 -20.5	000	0.00	Retrct Retrct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:24:06	16740 16875	-0.3	0-0-0- 6.0-0-	-15.0	0000	0.0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:24:07	17010	0.3	000	-16.6 -16.0	000	000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow	Stow	Stow	Stow Stow
20:24:08	17010	0.4	-0.7	-22.1	0	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow

	National Transnorts
Data	1999
TWA Flt. 800, B747-131, Takeoff to End of Data	2 Revised: December 22
, B74	Z
.800,	Data
TWA Flt.	Tahular

(seconds) 20:24:10 20:24:11 20:24:12 20:24:12 20:24:14 20:24:15	(FEET) 17145 17145 17145 17280 17280 17280 17280 17280	(degrees) 0.5	(degrees)			DITTED	Cot 1	0t - 0		50t A	00t 1	504 0 504 0	Sot 2	104 Q 10.				-
20: 24: 09 20: 24: 10 20: 24: 11 20: 24: 12 20: 24: 13 20: 24: 15 20: 24: 15	17145 17145 17280 17280 17280 17280 17280	0.5		(degrees)	(degrees)	(degrees)	(discrete)	discrete)	(discrete)	(discrete)	(discrete)	(discrete)	(discrete)	(discrete)	(1-T/R)	(1-T/R)	(1-T/R)	(1-T/R)
20:24:09 20:24:11 20:24:12 20:24:13 20:24:14 20:24:15 20:24:15	17145 17280 17280 17280 17280 17280	_	-0.7 -0.7		000	0.0												
20:24:10 20:24:11 20:24:13 20:24:14 20:24:15 20:24:15	17280 17280 17280 17280	0.5	-0.7 -0.7 -0.7	-13.4 -19.5	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:24:11 20:24:12 20:24:13 20:24:14 20:24:15	17280 17280 17280 17145	0.5		- 14.4	0	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:24:12 20:24:13 20:24:14 20:24:15	17280		2.0- 7.0- 7.0-	-14.4 -22.5	0000	0.0 0.0			Trans Trans		Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:24:13 20:24:14 20:24:15		00		-22.1	D 00	0000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:24:14 20:24:15	16335	0.2		-16.0 -14.6	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:24:15	17010 16740	0.2 0.4		-19.1	000	0.00	Ret rct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
	16605	0.5	-0.7 -0.7 -0.7	-16.6 -12.4	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Retrct Retrct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:24:16	16335 15930	0.5		-14.6	000	0.00	Retrct	Retrct	Trans	Ret rct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:24:17	15660	0.5		-14.0 5.9	000	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:24:18	14310 14580	0.5	-0.6	-10.7	000	0.00	Ret rct	Retrct	Trans	Retrct	Retrct	Retrct	Ret nct	Retrct	Stow	Stow	Stow	Stow
20:24:19	14040	0.7 0.5	-0.6 -0.6	-12.8 11.6	00	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow	Stow	Stow	Stow
20:24:20	13365	0.5		-27.0	0000	0.0 0.0 0.0	Retrot	Retrct	Trans	Ret rct	Retrct	Retrct	Retrct	Retrct	Stow	Stow c+out	Stow	Stow
20:24:21	12015	0.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-23.5 -12.4		0.000	Retrct Retrct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:24:22	11070 9585	0.4	-0.7	-12.4	000	0.000	Retrct	Retrct	Trans	Retrct	Retrct Retrct	Retrct Retrct	Retrct Retrct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:24:23	9180	0.4	-0.7 -0.7 -0.8	-12.4 -19.5	0000	0.000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct		Stow	Stow	Stow	Stow
20:24:24	8100 6885	0.8	-0.8 -0.8	-15.0	00	0.0	Ret r ct Ret r ct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:24:25	5670	0.7	-0.8 -0.8 -0.8	-15.0 7.5	0000	0.000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:24:26	4455	0.5	-0.8 8.0-	-18.5	- 00	0.00	Ret r ct Ret r ct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow	Stow Stow
20:24:27	3240 1890	0.2	6.0-0- 0-0-0-	-1.0 -17.4	000	0.00			Trans		Retrct	Retrct	Retrct		Stow	Stow	Stow	Stow
20:24:28	810	0.4		11.6	000	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:24:29	-540 -1620	0.4	6.0 <u>0</u> 6.0 <u>0</u> 6.0 <u>0</u>	0.6 2.6	0000	0.000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:24:30 20:24:31	-2700 -3780	0.5 0.5	-0.8 -0.8 -0.8	4.3 11.6		0.00	Retrct Retrct Retrct	Retrct Retrct Retrct	Trans Trans Trans	Retrct Retrct Retrct	Retrct Retrct Retrct	Retrct Retrct Retrct	Retrct Retrct Retrct	Retrct Retrct Retrct	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow

Transnor
National
× 1999
Jecember 25
Revised.
No 2
Tabular Data No 2 Revised: December 22 1999 National Transpor

Left left -4725 0 -4725 0 -5130 0 -5130 0 -5345 0 -7020 0 -7020 0 -9585 0 -9585 0 -9585 0 -9585 0 10395 0 11070 0 111610 0 12285 -0 12285 -0 12285 -0 12285 -0 12285 1 13365 1 13365 1 14715 0 14715 0 1486 0 14715 0 1486 0	(lower) es) (degrees)		Trailing	La'	Edge Lt.	dge Lt.	Edge Lt.	Edge Lt.	Edge Rt.	dge Rt.	Edge Rt.	Edge Rt.	Eng 1	Eng 2	Eng 3	Eng 4
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		k inbd (degrees)	Inbd (degrees)	JULE (dec	set I (discrete)	et 2 discrete)	set 3 (discrete)	Set 4 (discrete)	⊳et I (discrete)	Set 2 (discrete)	set 3 (discrete)	set 4 (discrete)	(1-T/R)	(1-T/R)	(1-T/R)	(1-T/R)
 :32 -5130 0 :33 -6345 0 :34 -7020 0 :35 -6345 0 :37 -10595 0 :37 -10395 0 :38 -10395 0 :39 -11070 0 :41 -11880 0 :42 -12825 -0 :41 -12825 -0 :42 -12825 -0 :43 -12825 -0 :43 -12825 -0 :44 -12825 -0 :47 -13355 -0 :48 -14040 0 :49 -14716 0 :40 -14715 0 :50 -14715 0 	0.4 -0.8 -0.9 -0.8	8 -10.7 9 8	000	0.00												
:33 -:5345 0 :34 -:7020 0 :35 -:345 0 :36 -:9310 0 :35 -:93370 0 :36 -:93990 0 :37 -:93990 0 :38 -:10395 0 :39 -:10395 0 :40 -:11610 :41 -:12015 :43 -:12015 :43 -:12105 :44 -:12355 :45 -:12355 :47 -:13530 :48 -:13365 :47 -:13535 :48 -:13365 :47 -:13535 :48 -:14740 :49 -:14310 :49 -:14316	e.		00	0.0	Ret rct Ret rct	Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct	Stow Stow	Stow Stow	Stow	Stow
:35 -7695 0 :35 -8910 0 :36 -9585 0 :37 -9990 0 :38 -10395 0 :39 -11340 0 :39 -11510 0 :40 -11610 :41 -11880 -0 :42 -12285 -0 :43 -12555 -0 :45 -12365 -0 :45 -12365 -0 :46 -13365 -0 :48 -14040 0 :49 -14316 0 :49 -14715 0	4.4	0 -12.0 0 -14.0		000		Retrct			Retrct	Retrct	Retrct	Retrct			Stow	Stow
:35 -8370 0 :36 -8910 0 :36 -9990 0 :37 -9990 0 :38 -10395 0 :40 -11610 0 :41 -11380 -0 :43 -12015 -0 :44 -12015 -0 :45 -12855 -0 :47 -12555 -0 :48 -13265 -0 :47 -13536 0 :48 -13295 0 :49 -14310 0 :49 -14316 0 :40 -14316 0	5.	0 1 -21.5	00	0.0 0.0		Retrct			Retrct	Retrct	Retrct	Retrct			Stow	Stow
-8910 0 :3.6 -9585 0 :3.8 -10395 0 :3.8 -10305 0 :3.9 -11610 0 :4.1 -12015 -0 :4.2 -12285 -0 :4.3 -12825 -0 :4.4 -12825 -0 :4.5 -13230 -0 :4.6 -13655 -0 :4.7 -13260 0 :4.8 -14040 0 :4.9 -14310 0 :5.0 -14715 0	5	- 14	00	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
:36 -9585 0 :37 -10395 0 :38 -10395 0 :40 -11610 :41 -11340 :43 -12015 :43 -12015 :43 -12825 :45 -12825 :45 -12825 :46 -13236 :47 -13535 :48 -13365 :47 -13635 :48 -14740 :47 -13635 :48 -14346 :49 -14316	1.4 -1.1 -1.0 -1.1	-13	000	000												
:379990 0 :3810800 :4011610 :41113800 :41120150 :42120150 :43121550 :43125550 :43133650 :47133650 :48133650 :48133650 :4914715 0 :5014715 0 :5114855 0	~	0 -11.8	00	0.0		Retrot	Trans	Retrot	Retrot	Retrot	Ret rct Ret rct	Retrot	Stow	Stow	Stow	Stow Stow
 :38 - 10800 :39 - 11340 :40 - 11610 :42 - 12015 - 0 :42 - 12285 - 0 :43 - 12420 - 0 :44 - 12855 - 0 :45 - 12285 - 0 :47 - 12355 :47 - 13365 :48 - 14040 0 :49 - 14715 0 :50 - 14715 0 	0.2 -0.9	9 -17.0 9 -14.0	0000	00000	Retrot	Retrot			Retrot	Retrot	Retrot	Retrot			Stow	Stow
 :39 -11070 :40 -11610 :41 -12015 -0 :42 -12285 -0 :43 -12555 -0 :45 -12285 -0 :45 -12555 -0 :47 -12555 -0 :47 -13235 :48 -14040 0 :49 -14715 0 :50 -14715 0 	0 0 0		000	000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
-11610 -12015 -0 -12855 -0 -12825 -0 -12825 -0 -12825 -0 -12825 -0 -12825 -0 -13365 -0 -13365 -0 -13365 -0 -14445 0 -14445 0 -14445 0 -14445 0 -14445 0	0 -0.9 0 -0.9 -1.0	9 13.2 9 2.6 0	0000	0.000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
-12015 -0 -12015 -0 -12285 -0 -12420 -0 -12420 -0 -12555 -0 -12855 -0 -13365 -13335 -13365 -133955 -133955 -13345 -13445 0 -14445 0 -14445 0 -14445 0	0 -1.0 -1.0	3.0	000	000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
-12015 -0 -12285 -0 -12285 -0 -12555 -0 -12555 -0 -13365 -13365 -13365 -13365 -13365 -0 -14445 0 -14445 0 -14445 0 -14445 0 -14485 0		9 0 12.0	0	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
-12285 -0 -12420 -0 -12555 -0 -12555 -0 -13230 -13555 -13355 -13555 -13555 -13635 -13640 0 -14445 0 -14445 0 -14245 0).1 -0.9 -1.0		000	000												
-12420 -0 -12555 -0 -12825 -0 -13265 -13335 -13365 -13335 -13365 -0 -14040 0 -14445 0 -14445 0 -14445 0).2 -1.1 -1.1	1 5.5	00	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
- 12825 -0 -12960 -13230 -13365 -13365 -13635 -13635 -13635 -13635 -13640 0 -14445 0 -14715 0 -14285 0	.1	0 0 -3.0 12.0	00	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
- 12825 -0 - 12960 - 13230 - 13235 - 13235 - 13235 - 13235 - 13235 - 13235 - 13205 0 - 14445 0 - 14445 0 - 14445 0 - 14445 0 - 14445 0 - 14445 0 - 14445 0 0 - 14445 0 - 14455 0 - 14445 0 - 144455 0 - 14445 0 - 14445 0 - 14455 0 - 144555 0 - 144555 0 - 144555 0 - 1445555 0 - 14455555 0 - 14455555 0 - 144555555 0 - 14455555555555555555555555555555555555		c	000	000		4			4		4	4	đ		ł	đ
-12960 -13230 -13265 -1365 -1365 -1365 -13635 -13635 -13635 -13635 -14040 0 -14445 0 -14445 0 -14445 0 -14445 0 -14485 0 0		0.2	0	0.0	ket rct Ret rct	Retrct	Trans	ket rct Ret rct	Retrct	Retrct	ket rct Ret rct	Retrct	Stow	Stow	Stow	Stow
- 133.65 - 133.65 - 136.35 - 139.05 - 139.05 - 137.05 - 147.15 - 147.15 0 - 14.95 - 15.95 - 14.95 - 14	0 -1.0 0 -0.9 -1.0	0 9 0	000	0.0 0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
-13635 -13905 -14040 0 -14445 0 -14445 0 -14715 0	0	9 -13.0 9 10.3	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
-14040 0 -14310 0 -14445 0 -14715 0 -14285 0	0 0 0 0 0 0 0 0 0 0	9 9	0000	0000	Retrct	Retrct	Trans	Ret rct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
-14310 0 -14445 0 -14715 0 -14785 0	e.	9 -14.8 9 -14.0	6.2	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
- 14715 0 - 14985 0	-0.9 1.3 -0.8 -0.8	- 13.0	0000	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
1 - 14985 0	2	9 -13.0 8 -16.6		0.0	Retinct	Retrot	Trans	Retrct	Retrot	Retrot	Ret nct Ret nct	Retrot	Stow	Stow	Stow	Stow Stow
- 15120 0	0.2 0.8 0.4 0.8 0.9		000	0000	Retrct	Retrct			Retrct	Retrot	Retrot	Retrct	Stow		Stow	Stow
20:24:52 -15255 0.	4	8 -19 1	000	0.0	Ret nct Ret nct	Retrct	Trans Trans	Ret rct Ret rct	Retrct	Retrot	Ret rct Ret rct	Retrct	Stow	Stow	Stow	Stow
20:24:53 -15390 0. -15660 0.	2 4		00	0.000	Retrct	Retrct			Retrct	Retrct	Retrct	Retrct				Stow
20:24:54 -15795 0.	0.0- 0.0- 0.0- 0.0-	9 -16.0 8.3	0000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Ext	Ret rct Ext	Retrct Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow

	National Transno
TWA Flt. 800, B747-131, Takeoff to End of Data	2 Revised: December 22, 1999
TWA Flt. 800, B74	Tahular Data No

Time	ALTC	evat	Rudder	Aileron	ap pos	Flap	Leadin	g Leading Lead	i ng	Leading	Leading	Leading	Lead ing	Leading		Reverser	Reverser	Reverser
(seconds)	(FEET)	Position Left (degrees)	Position (lower) (degrees)	Position R inbd (degrees)	Frailing Inbd (degrees)	Trailing OUTBD (degrees)	Edge Lt. Set 1 (discrete)	Edge Lt. Set 2 (discrete)	Edge Lt. Set 3 (discrete)	Edge Lt. Set 4 (discrete)	Edge Rt. Set 1 (discrete)	Edge Rt. Set 2 (discrete)	Edge Rt. Set 3 (discrete)	Edge Rt. Set 4 (discrete)	Eng 1 E (1-T/R) (Eng 4 (1-T/R)
20:24:55	- 15930 - 16065	0.2		0.0	00	0000	Ret rct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:24:56	-16200	0.2	5.0- - - - -	11.0 11.4	0000	0000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:24:57	- 16335 - 16605	0.5		10.3	00	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:24:58	- 16740	0.2	0.0 0.0 0.0	12.0 -16.6	0000	0.000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:24:59	-16740 -16875	0.2	6.0- 6.0-	2.2			Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:25:00	- 17010	0.3	8.0- 	-21.5 -14.0	0000	0000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:25:01	-16335 -17145	0.4		-14.8	000	000	Ret nct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:25:02	- 17280	0.2		-15.0 -20.9	000	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret nct Ret nct	Retrct Retrct	Stow	Stow	Stow	Stow
20:25:03	-17415 -17415	0.2	0.0- 0.0- 0.0-	-15.6	000	000	Ret rct	Retrct	Trans	Retrct	Retrct	Ext	Ext	Ext	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:25:04	-17550	0.4 0.1		-17.4 -19.5	000	000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:25:05	-17550 -16740	0.2	6.0- 0.0	-17.4	000	000	Ret nct	Retrct	Trans	Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:25:06	- 17685	0.4		-10.7	00	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:25:07	- 17685 - 17685	0.2		0.6	0000	00000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:25:08	- 17820	-0.2	-0.9 -1.0	$1.2 \\ 13.0$	00	5.9	Retrct	Retrct	Trans			Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:25:09	- 17820	-0.2		, i	0000	00000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:25:10	-17820 -17010	00		13.0 3.0	000	0.00	Ret rct	Retrct	Trans	Retrct		Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:25:11	-17820	0		-3.0	000	000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:25:12	- 17820 - 17820	-0.1	-0.9 -1.0 -1.0	12.0 11.6	0000	0000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:25:13 20:25:14	- 17820 - 17955 - 17820	0.3 0.2 0.2	0.0.0.0 0.0.0.0 0.0.0.0	12.6 -18.3 -26.6	00000	000000	Retrct Retrct Retrct	Retrct Retrct Retrct	Trans Trans Trans	Retrct Retrct Retrct	Retrct Retrct Retrct	Retrct Retrct Retrct	Ret rct Ret rct Ret rct	Retrct Retrct Retrct	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow
20:25:15	-17010					0.000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:25:16	- 17820 - 17820	0.2 2.0		-15.0 -17.0	000	0.0 0.0	Retrct	Retrct				Retrct	Retrct		Stow	Stow	Stow	Stow
20:25:17	-17820		6.0- 6.0-		000	000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:25:18	-17820 -17820	0.4		-15.6 -18.5	00	0.0	Retrct					Retrct	Retrct		Stow	Stow	Stow	Stow

	National Transnor
Data	1999
TWA Flt. 800, B747-131, Takeoff to End of Data	Tahular Data No. 2. Revised: December 22

lle	ALTC	Time ALTC Elevator Rudder Aileron El	Rudder	Aileron	ap pos	Flap pos	Leading	Leaging	Leading	Frau High	_edd1ng	Leaging	BUI npa-	Leaging	00.000			.ias.iava
(seconds)	(FEET)	Position Left (degrees)	Position (lower) (degrees)	osition R inbd (degrees)	lrailing Inbd (degrees)	lrailing OUTBD (degrees)	Edge Lt. Set l (discrete)	Edge Lt. Set 2 (discrete)	Edge Lt. Set 3 (discrete)	-dge Lt. Set 4 (discrete)	-dge Kt. Set l (discrete)	Edge Rt. Set 2 (discrete)	dge Kt. Set 3 (discrete)	Edge Kt. Set 4 (discrete)	=п9 I (1-Т/R)	Eng 2 E (1-T/R) (Eng 3 E (1-T/R) (Eng 4 (1-T/R)
20:25:19	- 17820	0.4	6.0- 6.0-	-18.9	000	0.00.0						~				Stow	Stow	Stow
20:25:20	- 16875 - 17685	00	6.0- 6.0-	-17 1	00000	00000	Retrct Retrct	Retrct Retrct	Trans	Retrct Retrct	Retrct Retrct	Retrot Retrot	Ret rct Ret rct	Retrct Retrct	Stow	Stow Stow	Stow	Stow Stow
20:25:21	- 17685	0.3	8.0- -0-0-	3.0		0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:25:22	- 17685 - 17550	0.3 0.4	v.0- 0.00- v.00-	-1.0	0000	0.000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:25:23	- 17550	0.2	-0-9 8-75	7.5			Retrct Retrct	Retrot	Trans Trans	Retrot	Retrot	Retrot	Retrct	Retrct Retrct	Stow	Stow	Stow	Stow Stow
20:25:24	- 17415 - 17415	0.3		6.5 0.4	0000	0000						Retrot		Retr	Stow	Stow	Stow	Stow
20:25:25	- 17280	0.3	-0.9	123.3	000	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow_ Stow_
20:25:26	-17280 -17145	0.4 0	6.0- 6.0- 6.0-	-18.5	0	0.0 0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrot	Retrct	Retrct	Stow	Stow	Stow	Stow
20:25:27	-17145	0	6.0- 6.0- 6.0-	10.3		0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:25:28	-17010 -16875	00	6.0- 6.0-	-20.5	000	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:25:29	- 16875	0	6.0- 0.0-	-18.9 -18.0	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:25:30	-16740 -16605	0.1	0.0- 0.0- 0.0-	-19.1	000	0.00	Retrct	Retrct	: Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:25:31	- 16470	0.3	6.0-	-16.6	0000	0000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:25:32	-16200 13770	0 0.1	-0.9 -0.8 -0.9		00	0.0						Retrct			Stow	Stow	Stow	Stow
20:25:33	- 15795	0.1	8.0- 8.0-	-17.4	0 0	0.0	Retrct	Retrct	: Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:25:34	-15660 -15525	0.2	0.0 0.0	- 19 - 18	0 000	0000						Retrct Retrct			Stow	Stow Stow	Stow	Stow
20:25:35	- 15255	0.2	-0.7 -0.8 -0.8	-19.1	000	0.0	Retrct Retrct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Retrct Retrct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:25:36	- 14985 - 14715	0.2	0.0- 0.0-	-19.5	000	0.00	Ret nct	Retrct	Trans	Ret rct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:25:37	- 14445	0.5	6.0- 6.0-	-6.9	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:25:38	- 14175 - 13905	0.4	6.0- 6.0-	2.6	00	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:25:39	- 13500	0.2	0.0- 0.0- 0.0-	-19.1	000	0.0	Ret rct Ret rct	Retrct	Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow	<u>Stow</u> Stow
20:25:40	- 13230 - 12960	0.2	6.0- 6.0	-10.3	000	0.00	Ret rct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:25:41	- 12555	0.2	2.0.0 9.0.0	-17.2	0	0.0	Ret.nct.	Ratrot	T		ć							

	I Transnort
	Nationa
TWA Flt. 800, B747-131, Takeoff to End of Data	Tabular Data No. 2. Revised: December 22. 1999. National Transnort

(seconds)		Elevatur Position	kuuuer Position	Aileron Position	rlap pos Trailing	Fla Tra	Leading Edge Lt.	Leading Edge Lt.	tia.	Edge Lt.	_eading Edge Rt.	Leading Edge Rt.	Leading Edge Rt.	Leading Edge Rt.	Keverser Eng 1	Reverser Eng 2	Keverser H Eng 3	Keverser Eng 4
	(FEET)	Left (degrees)	(lower) (degrees)	R inbd (degrees)	Inbd (degrees)	TUO (d€	Set 1 (discrete)	BD Set 1 Set 2 Set 3 grees) (discrete) (discr	ete)	Set 4 (discrete)	Set 1 (discrete)	Set 2 (discrete)	Set 3 (discrete)	Set 4 (discrete)	R)	(1-T/R)	2	(1-T/R)
20:25:42	- 12015	0.3	e.o- e.o-	-27.6	000	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20.25.43		C	6.0-0 			0 0	Retroct											Stor
÷,				-10.4		000	Retrct	Retrct	Trans	Retrot	Retrot	Retrct	Retrot	Retrct	Stow	Stow	Stow	Stow
20:25:44	- 11070	0.2	6.0- 6.0-	-16.4	0	0.0 0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:25:45	- 10125	0.3	n	-17.0 -17.4	0000	0000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow	Stow	Stow	Stow
20:25:46	-9585 -9315	0.2	6.0- 6.0-	-20.5	00		Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:25:47	-8910	0.4 0.3	0.0.0.0 0.0.0.0 0.0.0.0	-17.4 -19.5	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:25:48		0.3	-0.9	-29.0	00	00	Ret rct	Retrct	Trans	Retrct	Retrct	Retrct				Stow	Stow	Stow
			-1.0	_	0	0.0					Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:25:49	- 7155	0.3	-0.9	-29.0	0000	0000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:25:50	-6615 -5805	0.5	-0.7 -0.7	-19.5			Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:25:51	-5400	0.3	8.0-0-0- 9.0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-	-17.0	000	000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:25:52	-5265	0.1	-0.9 -1.0	13.4	000	000.00	Retrct Retrct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:25:53	-4725 -3780	0.3 0	6.0 0 0	-17.2	000	000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:25:54	-3510	0.5	0.0- 0.0-	-17.0	000	0.00	Retrct Retrct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:25:55	-3105	0	· [. . 0 ·	-17	0		Ret rct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
	-2700	0	-0.7	-26.6	000													
20:25:56				-16			Ret rct Ret rct	Retrct	Trans Trans	Retrct	Retrct	Retrct	Ret rct Ret rct	Retrct	Stow	Stow Stow	Stow	Stow
/4:42:02	- 1890 - 1485	0 0		-24.1	000		Ketrct											STOW
20:25:58	- 945	0.3	6.0- 0-	-19.5	000		Ret rct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow Stow	Stow	Stow
20:25:59	-540	0.2		-18.5	000		Retrot									Stow		Stow
	104	c <	000) 1 7	000		1			4				1	đ			đ
20:26:01			0.000				Ret nct Ret nct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrot Retrot	Ret nct Ret nct	Retrct Retrct	Stow Stow	Stow Stow	Stow	Stow Stow
20:26:02			0000				Retrct Retrct Retrct	Retrct Retrct Retrct	Trans Trans Trans	Retrct Retrct Retrct	Retrct Retrct Retrct	Retrct Retrct Retrct	Ret rct Ret rct Ret rct	Retrct Retrct Retrct	Stow Stow	Stow Stow Stow	Stow Stow	Stow Stow
	2565	0.2	6.0- 6.0-	-19.5	000													
20:26:04	2835	0.2	6.0- 6.0-	-5.7	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:26:05	3375 3780	00	9.0- 9.0- 9.0-	-18.0	00	0.0	Ret rct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow

TWA Fit. 800, B747-131, Takeoff to End of Data Tabular Data No 2, Revised: December 22, 1999, National Transport.
Fit. 800, B747-131, Takeoff to End of Data Jar Data No. 2, Revised: December 22, 1999
⊲ ⊐

Tabular Data	Data N	0. 2, Re	vised: D	ecemb	22, 19	99, Natio	onal	nsportat	ion Safel	Board								
Time (seconds)	ALTC (FEET)	Elevator Position Left (degrees)	Rudder Position (lower) (degrees)	Aileron Position R inbd (degrees)	Flap pos F Trailing T Inbd ((degrees) (Flap pos l Trailing E 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-T/R)	Reverser F Eng 2 (1-T/R) (Reverser Re Eng 3 Er (1-T/R) (.	Reverser Eng 4 (1-T/R)
20:26:06	4185	0		12.6	0000	0000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:26:07	4590 4725	0.2		-17.4 9.3		0.000	ket rct Ret rct	ketrct Retrct	Trans				ket rct Ret rct	Retrct	Stow	Stow	Stow	Stow
20:26:08	5400	0.2	9.0- 9.0- 8.0-	-22.5	0000		Ret nct. Ret.nct.	Retrct Retrct	Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret nct. Ret nct.	Retrct Retrct	Stow	Stow	Stow	Stow
20:26:09	5805 5940	00	8.0.0	-17.4 -18.0	000	000	Retrct	Retrct					Retrct	Retrct	Stow	Stow	Stow	Stow
20:26:10	5940	0.2		-20.1	000	000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:26:11	7020 7290	0.1	-1.0 -1.0 -0.9 -0.9	-26.4	000	0.00	Retrct	Retrct	Trans				Retrct	Retrct	Stow	Stow	Stow	Stow
20:26:12	7560	-0.2	e.0-	-18.0	00	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow 2
	0			- 24	0 0	0.0	Retrot	Retrct					Retrot	Retrct	Stow	Stow	Stow	Stow
20:26:13	81UU 8640	0	9.0- 9.0- 9.0-	G.US-	0000	0000	ket rct	Ketrct	ràns I	Ketrct	Ketrct	Ketrct	Ket rct	Ketrct	STOW	210W	NOIS	NON
20:26:14	9045	0		-19.5	, o o	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:26:15	9315 9720	0.2	-0.7 -0.7 -0.7 -0.7	-21.1	000	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:26:16	0666	0	-0.7 -0.8 -0.8	-22.5	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:26:17	10395 10800	0.2		10.3	000	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:26:18	11205	0.2	6.0- 6.0-	8.3 12.0	000	0000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow
20:26:19	$\frac{11475}{11880}$	0		3.2	00	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:26:20	12285	-0.2	5.000 5.000 5.000 5.000	12.4 11.4		0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:26:21	12555 12960	-0.3		6.5	00	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:26:22	13365		6.0- 6.0- 6.0-	0.0 -26.0	000	0000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow
20:26:23	13770 14175	0.4 0.3		-26.6	000	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:26:24	1445	0.2		11.6 -22.1	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:26:25	14850 15120	0.2	6.0- 6.0-	-0.4	000	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:26:26	15525	0.2		-19.5 -17.0	0000	0000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:26:27	15795 16200	0.3	6.0- 6.0-	-19.1	000	200	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:26:28	16470	0.3	6.0	-18.0	0	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow

	Transnort
	National
TWA Fit. 800, B747-131, Takeoff to End of Data	Tabular Data No. 2 Revised: December 22, 1999

Time T		0. ∠, K6 Elevator	Rudder	Villeron	ELZZ, 199 Flap pos Fl	ap pos IL	ead ing	eading	Leading	BOBIG ad ine	eadina	Leading	Leading	Leading	Reverser			keverser
(seconds)	(FEET)	Position Left (degrees)	Position F (lower) F (degrees) (Position R inbd (degrees)		Trailing E OUTBD S (degrees) (Edge Lt. E Set 1 (discrete)	Edge Lt. Set 2 (discrete)	Edge Lt. Set 3 (discrete)	Edge Lt. Set 4 (discrete)	Edge Rt. Set 1 (discrete)	Edge Rt. Set 2 (discrete)	Edge Rt. Set 3 (discrete)	Edge Rt. Set 4 (discrete)	Eng 1 (1-T/R)	Eng 2 (1-T/R)	Eng 3 (1-T/R)	Eng 4 (1-T/R)
		0.5	-0.8 -0.7	-15.6	00	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct				
20:26:29	16875 17010	0.3		-4.3	000	0.000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:26:30	17280	0.3 0.3	 -	-11.4 12.0	00	0.0	Ret nct Ret nct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:26:31	17415 17550	0.2		3.9	0000	0000	Ret rct	Retrct	Trans	Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:26:32	17820	0.3	0,00,00,00,00,00,00,00,00,00,00,00,00,0	$^{-0.4}_{11.6}$	000	000	Ret rct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:26:33	17955 18090	0.2		-29.0	000	0.0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:26:34	18090	0.2		-23.5 11.6	0000	0000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:26:35	18225	0.1	-1.1 -1.2	-19.9	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:26:36	18225 18360	0.2		-23.5 -22.1	000	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:26:37	18360	0.2		-17.4	000	000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	<u>Stow</u> Stow
20:26:38	18360 18360	0.2		-16.6 -18.0	000	000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:26:39	18360	0.3		-20.5	0000	0000	Ret nct Bet nct	Retrct	Trans	Retrct	Retrct	Retrot	Retrct	Retrct	Stow	Stow Stow	Stow	Stow
20:26:40	18225 18225	0.3		-18.7 -3.7	000		Retrct	Retrct			Retrct	Retrot				Stow	Stow	Stow
20:26:41 20.26.42	17145		~ @ 6 6 6 C			00000	Ret rct Ret rct Ret rct	Retrct Retrct Retrct	Trans Trans Trans	Retrct Retrct Retrct	Retrct Retrct Retrct	Retrot Retrot Retrot	Ret rct Ret rct Ret rct	Retrct Retrct Retrct	Stow Stow Stow	Stow Stow Stow	stow stow	Stow
24:02:02	17820	0.2		$^{-1/.4}$			עפר ו.רר	עפרו.רר			עפרו רר					MODE	2008	M010
20:26:43 20:26:44	17685 17415 17280	0.5 0.3 0.2	1.1.1.0.0.0.0 1.1.1.0.0.0.0 1.0.0.0.0.0.	-22.1 -21.7 -23.1		000000000000000000000000000000000000000	Ret rct Ret rct Ret rct	Retrct Retrct Retrct				Retrct Retrct Retrct				Stow Stow Stow	Stow Stow Stow	Stow Stow Stow
20:26:45 20:26:46	17010 15930 16740	0.3		-17.8 -27.0 -19.1	00000	0.000.00	Ret rct Ret rct Ret rct	Retrct Retrct Retrct	Trans Trans Trans	Retrct Retrct Retrct	Retrct Retrct Retrct	Retrct Retrct Retrct	Ret rot Ret rot Ret rot	Retrct Retrct Retrct	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow
20:26:47	16470	0.3		-18.5	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:26:48	16335 16065	0.3	6.0- 6.0-	-15.6 -19.5	0000	0.000	Retrot	Retrct	Trans	Retrct	Retrct	Retrot	Retrot	Retrct		Stow	Stow	Stow
20:26:49	15795	0.1		-8.5		000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Retrct Retrct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:26:50	15660 14445	0.4	0-0- 0-0-	11.0 -19.5	0000	0000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:26:51	15120	0.1	-0.7	3.9		,00 ,00	Ret nct Ret nct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:26:52	14985	0		-27.0	0	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow

TWA Flt. 800, B747-131, Takeoff to End of Data	al Transnorta
	Nation
f Data	0 1999
o End of	amher 25
akeoff t	ad: Dece
7-131, T	Revise
B74	د So
.800,	Data
TWA Flt.	Tabular

$ \ $	Tabular	. ouu, ⊏ Data Nt	o. 2, Re	vised: D		u ∼. I	Nat	onal	nsportat	on Safet	Board								
(1) (1) <th>Time (seconds)</th> <th>ALTC (FEET)</th> <th>Elevator Position Left (degrees)</th> <th>Rudder Position (lower) (degrees)</th> <th>Aileron F Position T R inbd I (degrees) (</th> <th></th> <th>Tap pos Trailing UTBD degrees)</th> <th>Leading Edge Lt. Set 1 (discrete)</th> <th>Leading Edge Lt. Set 2 (discrete)</th> <th>Leading Edge Lt. Set 3 (discrete)</th> <th>Leading Edge Lt. Set 4 (discrete)</th> <th>Leading Edge Rt. Set 1 (discrete)</th> <th></th> <th>Leading Edge Rt. Set 3 (discrete)</th> <th>Leading Edge Rt. Set 4 (discrete)</th> <th></th> <th></th> <th></th> <th>(everser ing 4 1-T/R)</th>	Time (seconds)	ALTC (FEET)	Elevator Position Left (degrees)	Rudder Position (lower) (degrees)	Aileron F Position T R inbd I (degrees) (Tap pos Trailing UTBD 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 3 (discrete)	Leading Edge Rt. Set 4 (discrete)				(everser ing 4 1-T/R)
9480 9 -2.0 0 0.0 9400 84000		14715	0	0.0- 0.0-	4.3	000	0.00												
	20:26:53	14580	0	0.0 0.0	-27.0	000	000		Retrct Retrct	Trans Trans			et r	Ret nct Ret nct	Retrct Retrct	Stow Stow		Stow Stow	Stow Stow
103 0	20:26:54	14445 14175		9.0- 9.0-	-20.5	00	0.0		Retrct	Trans		Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
1333 0.0 3.3 3.1 0.0 1.0.3 3.1 0.0 2.0.4 0.00 2.0.4	20:26:55	13095		6.0- 6.0-	-19.1 -20.1	0000	0.0000		Retrct Retrct	Trans Trans		Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow		Stow Stow	Stow Stow
	20:26:56	13770 13635	00	0000	-27.6	000	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
	20:26:57	13500	0.1	0.00 0.00	-23.5 -17.0	000	0000	Ret rct Ret rct	Retrct Retrct	Trans Trans			Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow		Stow Stow	Stow Stow
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	20:26:58	13365 13095			-28.6	0000	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow		Stow	Stow
	20:26:59	12960	0	-0.9 -0.7	-19.9 -19.5	000	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans		Retrct Retrct	Retrct Retrct	Ret nct Ret nct	Retrct Retrct	Stow Stow		Stow Stow	Stow Stow
	20:27:00	12825 12825		0.000	-14.0	000	0.00	Retrct	Retrct	Trans		Retrct	Retrot	Retrct	Retrct	Stow	Stow	Stow	Stow
	20:27:01	12690	0	0-0- 0-0- 0-0-	8.3	000	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans		Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow		Stow Stow	<u>Stow</u> Stow
12420 0 <td>20:27:02</td> <td>12555 12555</td> <td>0-</td> <td>6.0- 6.0-</td> <td>12</td> <td>00</td> <td>0000</td> <td>Ret rct</td> <td>Retrct</td> <td>Trans</td> <td></td> <td>Retrct</td> <td>Retrct</td> <td>Ret rct</td> <td>Retrct</td> <td>Stow</td> <td></td> <td>Stow</td> <td>Stow</td>	20:27:02	12555 12555	0-	6.0- 6.0-	12	00	0000	Ret rct	Retrct	Trans		Retrct	Retrct	Ret rct	Retrct	Stow		Stow	Stow
12385 0 0.0 0 </td <td>20:27:03</td> <td>12420</td> <td></td> <td>6.0.0 6.0.0</td> <td>12 4</td> <td>000</td> <td>0.0</td> <td>Ret rct Ret rct</td> <td>Retrct Retrct</td> <td>Trans Trans</td> <td></td> <td>Retrct Retrct</td> <td>etr</td> <td>Ret rct Ret rct</td> <td>Retrct Retrct</td> <td>Stow Stow</td> <td></td> <td>Stow Stow</td> <td>Stow Stow</td>	20:27:03	12420		6.0.0 6.0.0	12 4	000	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans		Retrct Retrct	etr	Ret rct Ret rct	Retrct Retrct	Stow Stow		Stow Stow	Stow Stow
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	20:27:04	12285 12285		6. 0. 6. 0. 6. 0.	-19.5	0 00	0000	Ret rct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
12150 -0.1 0.0 Retrict Retrict Retrict Retrict Retrict Retrict Retrict Stow	20:27:05	12150		00000	-17.4	000	000	Ret rct Ret rct	Retrct Retrct	Trans Trans		Retrct Retrct	etr	Ret rct Ret rct	Retrct Retrct	Stow Stow		Stow Stow	Stow Stow
12015 0 -0.9 -19.5 0 0.0 Retrict	20:27:06	12150 12015	0,0,		-20.1	000	0.00	Retrct	Retrct	Trans		Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	20:27:07	12015	0	5.0.0.0 0.0.0.0 0.0.0.0	-19.5 -19.5	0000	0000	Ret rct Ret rct	Retrct Retrct	Trans Trans		Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow		Stow Stow	Stow Stow
11880 0 -0.3 8.3 0 0.0 Retrot Trans Retrot Retrot Retrot Retrot Retrot Retrot Retrot Retrot Stow Stow <td>20:27:08</td> <td>12015 11880</td> <td></td> <td>0.0- 0.0-</td> <td></td> <td>00</td> <td>0.0</td> <td>Retrct</td> <td>Retrct</td> <td>Trans</td> <td>Retrct</td> <td>Retrct</td> <td>Retrct</td> <td>Ret rct</td> <td>Retrct</td> <td>Stow</td> <td>Stow</td> <td>Stow</td> <td>Stow</td>	20:27:08	12015 11880		0.0- 0.0-		00	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	20:27:09	11880	00	 	-19 -	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans		Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow		Stow Stow	Stow Stow
11610 0 000 000 Retrott	20:27:10	11745		6 U-	4.9	c		Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
11475 0.1 .0.9 -3.7 0 0.0 Retroct Retroct Retroct Retroct Stow Stow <td>20:27:11</td> <td>11610</td> <td></td> <td>0000</td> <td>-5.3 9.7</td> <td>000</td> <td>0000</td> <td></td> <td>Retrct Retrct</td> <td>Trans Trans</td> <td></td> <td>Retrct Retrct</td> <td>etr</td> <td>Ret rct Ret rct</td> <td>Retrct Retrct</td> <td>Stow</td> <td>Stow</td> <td>Stow</td> <td>Stow</td>	20:27:11	11610		0000	-5.3 9.7	000	0000		Retrct Retrct	Trans Trans		Retrct Retrct	etr	Ret rct Ret rct	Retrct Retrct	Stow	Stow	Stow	Stow
11205 0.1 -0.9 12.0 0 0.0 Retrot Retrot Retrot Retrot Retrot Stow Stow Stow 0 -0.9 -0.9 -22.5 0 0.0 Retrot Retrot Retrot Retrot Stow Stow Stow 11205 0.1 -0.9 12.0 0 0.0 Retrot Retrot Retrot Retrot Retrot Stow Stow 11205 0.1 -0.9 12.0 0 0.0 Retrot Retrot Retrot Retrot Retrot Stow Stow 11070 37.8 37.8 0.0 0.0 0.0 0.0 Retrot Retrot Retrot Retrot Retrot Stow Stow	20:27:12	11475 11340		0.0- 0.0-		000	0.000		Retrct	Trans		Retrct	Retrct	Ret rct	Retrct	Stow Stow		Stow Stow	Stow Stow
11205 0.1 -0.9 12.0 0 0.0 Retrct Retrct Retrct Retrct Retrct Retrct Retrct Stow Stow Stow 37.9 37.8	20:27:13	11205	0.1	0,0,0,0 0,0,0,0	-22	000	0.0.0		Retrct Retrct	Trans Trans			Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
	20:27:14	11205 11070		-0.9 -0.9 37.8	12.0	000	0.00		Retrct	Trans		Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow		Stow Stow	Stow Stow

	I Transnortation
	Nationa
TWA Fit. 800, B747-131, Takeoff to End of Data	Tabular Data No. 2. Revised: December 22. 1000. National Transnortation

	Time	ALTO	Elevator	Rudder	Aileron	bos	lap pos	Leading	Leading	Leading	adina	Leading	Leading	eading	pading		Г		Douoneon
	seconds)	(FEET)	Position Left (degrees.	Position (lower))(degrees)	Position R inbd (degrees)	ling rees)	Trailing (UTBD (degrees) (Edge Lt. Set 1 (discrete)	Edge Lű. Set 2 (discrete)	Edge Lť. Set 3 (discrete)	dge Lt. Set 4 discrete)	Edge Rt. Set 1 (discrete)	Edge Rt. Set 2 (discrete)	Edge Rt. Set 3 (discrete)	Edge Rt. Set 4 (discrete)				Eng 4 (1-T/R)
	0:27:15	10935.	00		ء 128	00	0.0		Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	ð	Ň	NO.	Stow
			; >		07-	000	000												
	0:27:16	10800 10665	0		10	00	0.0	Ret rct Ret rct	Retrct Retrct		Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Retrct Retrct	Retrct Retrct	Stow	Stow	Stow	Stow
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	0:27:17	10530	0.0		- 23 .	0	0.0	Retrct	Retrct		Ret.rct	Retrot	Ratrot	Dat not	Do+ 50+	ť	ť		
$ \left[1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, $			0			000	0.00) ; ;	2001	עפרו כר	VAL CT	200	NO10	DLOW	SLOW
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	0:27:18	10395	· 0	000	- 24	00	0.0	Ret rct Ret rct	Retrct Retrct	Tràns Tràns	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow	Stow	Stow
	1:27:19	10260 10125	0.1		-28.	00		Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
$ \begin{array}{{ccccccccccccccccccccccccccccccccccc$	1:27:20	10125			-28	000	0.0.0	004 soft	+00	F		-					ſ		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$) 	~		-	>0	0.0	Retrot	Retrct	Tràns	Ket rct Ret rct	Retrct	Retrct Retrct	Retrct Retrct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		9990 9855 9855	0		-19 -19	000	0.0	Retrct	Retrct	Trans	Ret rct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$: 27: 22	9720	0		-19	000	0.00	Retrct	Retrct		Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	sto
	: 27: 23	9720 9720	00		-19 -19	- 00	0.00	Retrct	Retrct Retrct		Retrct	Retrct Retrct	Retrct Retrct	Retrct Retrct	Retrct Retrct	Stow	Stow	Stow	Stow
		9720	 			000	0.00	1		ŀ									
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		9720 9720 9720		Ĺ	1 9-	000	0.0.0	Retrct Retrct	Retrct Retrct Retrct	Trans Trans	Ret nct Ret nct Ret nct	Retrct Retrct Retrct	Retrct Retrct Retrct	Retrot Retrot Retrot	Retrct Retrct Retrct	Stow Stow	Stow Stow	Stow Stow Stow	Stow Stow Stow
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		2	>		71	000													
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$:27:26	9585	0 (е ;	00	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow	Stow	Stow	Stow
28 9045 0.1 0.03 10.7 0 0 Retrict Trans Retrict Retrict Retrict Store Store </td <td></td> <td>9315 9315</td> <td></td> <td>Ĺ</td> <td></td> <td>000</td> <td>0.00</td> <td>Retrct</td> <td>Retrct</td> <td>Trans</td> <td>Retrct</td> <td>Retrct</td> <td>Retrct</td> <td>Retrct</td> <td>Retrct</td> <td>Stow</td> <td>Stow</td> <td>Stow</td> <td>Stow</td>		9315 9315		Ĺ		000	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
1:30 9100 0.2 -0.0 911.0 0.0 Refrict Refrict <td>: 27: 28</td> <td>9045</td> <td>0.1</td> <td>• • • •</td> <td>10.7</td> <td>00</td> <td>0.00</td> <td>Retrct</td> <td>Retrct</td> <td>Trans</td> <td>Ret rct</td> <td>Retrct</td> <td>Retrct</td> <td>Ret.rct</td> <td>Retrot</td> <td>Stor</td> <td>Stow</td> <td>to to</td> <td>Ct of</td>	: 27: 28	9045	0.1	• • • •	10.7	00	0.00	Retrct	Retrct	Trans	Ret rct	Retrct	Retrct	Ret.rct	Retrot	Stor	Stow	to to	Ct of
3370 0.2 0.7 -29.4 0 0.0 Retrict	: 27: 29	8100 8640	0.2	<u> </u>	11.0 -28.0	000	0000	Ret rct Ret rct	Retrct Retrct	Tràns Tràns	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrot Retrot	Stow Stow	Stow	Stow	Stow
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$: 27:30	8370	0.2	- - -	-29.4	000	000	Retrct	Retrct	Tràns	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
131 3100 0.1 -0.7 -21.9 0 0.0 Retrict Stow			_			>	0.0	ketrct	ketrct	Trans	Ret rct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
132 7695 0.1 -0.7 -29.0 0 0.0 Retrict Retrict Retrict Retrict Retrict Stow Stow<	: 2/: 31	8100 7965	0.3		-21.9 -29.8	0000	0000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$: 27:32	7695	0.1		-29.0	00	0.0	Retrct Retrct	Retrct Retrct	Tràns Tràns	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow
34 7020 0.1 -0.8 2.6 0 0.0 Retroit Retroit Retroit Retroit Retroit Retroit Retroit Retroit Stow Stow <thtow< th=""> <thtow< th=""> <thtow< th=""></thtow<></thtow<></thtow<>	:27:33	7425 6615			-18.5	000	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
35 6750 0.1 -0.8 8.3 0 0.0 Retrict Retrict Retrict Retrict Stow	:27:34	7020	0.1	00	2.6		0.00	Retrct	Retrct	Tràns	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
33 5430 0.1 -0.2 8.3 0 0.0 Retrict Retrict Retrict Retrict Retrict Stow Stow <td>10.10</td> <td>0120</td> <td>~</td> <td></td> <td></td> <td><u> </u></td> <td>0.0</td> <td>Retrct</td> <td>Retrct</td> <td>Tràns</td> <td>Retrct</td> <td>Retrct</td> <td>Retrct</td> <td>Retrct</td> <td>Retrct</td> <td>Stow</td> <td>Stow</td> <td>Stow</td> <td>Stow</td>	10.10	0120	~			<u> </u>	0.0	Retrct	Retrct	Tràns	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
35 6345 0 -0.7 1.0 0 0.0 Retrot Retrot Retrot Retrot Stow Stow Stow Stow Stow 37 6210 0.1 -0.7 0.0 0.0 Retrot Trans Retrot Retrot Retrot Stow Stow Stow Stow Stow 37 6210 0.1 -0.9 12.0 0 0 Retrot Retrot Retrot Retrot Retrot Stow Stow Stow 38 5335 0.2 -0.9 12.0 0 0 Retrot Retrot Retrot Retrot Retrot Stow Stow Stow 38 5335 0.2 -0.9 12.0 0 0 Retrot Retrot Retrot Retrot Retrot Stow Stow	CC:/7:	6480	0.2			000	000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
37 6210 0.1 -0.2 0.0 0.0 Retrot Retrot Retrot Retrot Retrot Stow 38 5535 0.2 -0.9 12.0 0 0.0 Retrot Retrot Retrot Retrot Retrot Stow Stow Stow	:27:36	6345	0	-0.7	1.0	000	0.00	Ret rct Ret rct	Retrct Retrct	Tràns Tràns	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow	Stow	Stow	Stow
5535 0.2 -0.9 12.0 0 0.0 Retrot Retrot Retrot Retrot Retrot Retrot Retrot Stow Stow Stow Stow Stow Stow Stow St	27:37	6210 6210	0.1			000	000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
	27:38	5535	0.2	6.0- 6.0-	12.0 -27.0	0000	0000	Ret rct Ret rct	Retrct Retrct	Tràns Tràns	Retrct Retrct	Retrct	Retrot	Ret rct Bot sof	Retrct	Stow	Stow	Stow	Stow

Transnor
National
Tabular Data No. 2. Revised: December 22. 1999. National Transnor
o 2 Revised De
Tabular Data No

Tabular	Data N	o. 2, Re	vised: L	ecemb(£	<u>9, Natic</u>	onal Trai	nsportati	ion Safei	ty Board								
Time (seconds)	ALTC (FEET)	Elevator Position Position Position (degrees)	Rudder Position (lower) (degrees)	Aileron F Position T R inbd I (degrees) ((we w	Flap pos L Trailing E OUTBD S (degrees) (eading dge Lt. et 1 discrete)	Leading Edge Lt. Set 2 (discrete)	pos Leading Leading Leading 11ng Edge Lt. Edge Lt. Edge Lt. 5 et 1. Set 2. Set 3. Set 4 rees) (discrete) (discrete) (discrete)	Leading Edge Lt. Set 4 (discrete)	Leading Edge Rt. Set 1 (discrete)	Leading Edge Rt. Set 2 (discrete)	_eading Edge Rt. Set 3 (discrete)	Leading Edge Rt. Set 4 (discrete)	Reverser Eng 1 (1-T/R)	Reverser R Eng 2 E (1-T/R) (Reverser F Eng 3 (1-T/R) (Reverser Eng 4 (1-T/R)
20:27:39	5940		-0.9	-23.5	0	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
	5805	0	-0.9 -0.9		000	000												
20:27:40	5670	0	0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-	-27.6 -26.6	00	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow	Stow Stow	Stow	Stow Stow
20:27:41	5535	0.2	0.0	-24.1	0	0.0	Ret rct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
	2400	0.2	e.0- 0.0-			0.0												
20:27:42	5400	0.2	37.8 -0.9	-26.6 3.9	00	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:27:43	4860 4995	0.2		4.3	0.0	0.00	Ret rct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20-27-44	4860	0 4	-0.9 -0.9		000	0	Retinct	Retrot				Retrot	Ret not	Retrot	St ov	St ow	24 OF	Stow
		- 	0.0- 0.0-	11.6	0	0000	Retrot	Retrot	Trans	Retrot	Retrot	Retrot	Retrot	Retrct	Stow	Stow	Stow	Stow
20:27:45	4725 4455	0.2 0.2	-0.9 -0.9	13.0	0.0	000	Ret rct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:27:46	4320	0.2	6.0-0-0- 0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-	8.3 12.4	0000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow	Stow
20:27:47	4185 3645	0.1	8.0- 0.0	-5.7	00	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:27:48	3780	0	6.0- 8.0-	11.0 11.6	000	0.000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:27:49	3510 3240	0.3	0-0-0	4.3	000	0.00	Ret rct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:27:50	3105	0.1	8.0- 6.0-	-19.1	00	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow	Stow	Stow	Stow
			-0.8		00	0.0			I							i	i	i
20:2/:51	2/00 2430	0.2	0-0-0- 0-0-0-	-22.1	00	0.0	ket rct	Ketrct	rans	ket rct	Retrct	ketrct	ket rct	Ketrct	Stow	Stow	Stow	Stow
20:27:52	2295	0.3	0-0- 0-0-	-19.1 -23.1	00	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:27:53	1890 1620	0.2	8.0- 8.0-	-26.6	0000	00000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:27:54	1350	0.2		-19.5 -19.5		0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow	Stow	Stow	Stow
20:27:55	1080 810	0.2	8.0-	-19.5	000	0.0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:27:56	540	0.1	0,0,0,0 0,0,0,0 0,0,0,0	-16.0 -18.9	0000	0000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:27:57	270 0	0.2	6.0-0 0-0-0	-8.3	000		Retrct	Retrct	Trans	Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:27:58	-270	0.2	0.0-0- 0.0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0	-19.5 11.6	0000	0000	Ret rct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:27:59	-540	0	-0.8	11.6	000	0.0	Retrct Retrct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct	Stow	Stow Stow	Stow	Stow Stow
20:28:00	- 945	0.2	0,0,0,0	10.5 -29.4	000	0.00	Retrct	Retrct				Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:28:01	-1215	0	v.u- e.o- e.o-	11.6		0000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow

	Transno
	National
TWA Flt. 800, B747-131, Takeoff to End of Data	Tabular Data No. 2. Revised: December 22, 1999. No

- C 7	Leading Leading	set 1 Set 2	- ny ahna	2 2 2	По 2 О
	tage Lt. Eage Lt. Eage Lt. Eage Lt. Ea Set 2 Set 3 Set 4 Sc (discrete)(discrete)(d	(discrete) (discret	Set 3 (discrete)	edge Kt. Eng I Eng Set 4 (discrete)(1-T/R) (1-	Eng 2 Eng 3 Eng 4 (1-T/R) (1-T/R) (1-T/R)
	Retrct Trans Retrct	Retrct	Retrct	Retrct Stow	Stow Stow
	Retrct Trans Retrct Retrct Trans Retrct	Retrct Retrct Retrct Retrct	Ret rct Ret rct	Retrct Stow Retrct Stow	Stow Stow Stow Stow
	Retrct Trans Retrct	Retrct Retrct	: Retrct	Retrct Stow	Stow Stow
	Retrct Trans Retrct Retrct Trans Retrct Retrct Trans Retrct	Retrct Retrct Retrct Retrct Retrct Retrct	Ret rct Ret rct Ret rct	Retrct Stow Retrct Stow Retrct Stow	Stow Stow Stow Stow Stow Stow
	Retrct Trans Retrct Retrct Trans Retrct Retrct Trans Retrct	Retrct Retrct Retrct Retrct Retrct Retrct	Ret rct Ret rct Ret rct	Retrct Stow Retrct Stow Retrct Stow	Stow Stow Stow Stow Stow Stow
	Retrct Trans Retrct Retrct Trans Retrct Retrct Trans Retrct	Retrct Retrct Retrct Retrct Retrct Retrct	Ret rct Ret rct Ret rct	Retrct Stow Retrct Stow Retrct Stow	Stow Stow Stow Stow Stow Stow
	Retrot Trans Retrot Retrot Trans Retrot Retrot Trans Retrot	Retrct Retrct Retrct Retrct Retrct Retrct	Ret rct Ret rct Ret rct	Retrct Stow Retrct Stow Retrct Stow	Stow Stow Stow Stow Stow Stow
	Retrct Trans Retrct Retrct Trans Retrct	Retrct Retrct Retrct Retrct	Ret rct Ret rct	Retrct Stow Retrct Stow	Stow Stow Stow Stow
11	rct Trans Retrct	Retrct Retr	tt Retrot	Retrct Stow	Stow Stow
	Trans Trans		Ret rct Ret rct		
	ketrct Irans ketrct	ketrct ketrct	Ketrct	Ketrct Stow	stow stow
	Retrct Trans Retrct Retrct Trans Retrct	Retrct Retrct Retrct Retrct	Ret rct Ret rct	Retrct Stow Retrct Stow	Stow Stow Stow Stow
	Retrct Trans Retrct	Retrct Retrct	Ret rct	Retrct Stow	Stow Stow
د س	Retrct Trans Retrct Retrct Trans Retrct	Retrct Retrct Retrct	Ret rct Ret rct	Retrct Stow Retrct Stow	Stow Stow Stow Stow
5	Retrct Trans Retrct	Retrct	Ret rct	Retrct Stow	Stow Stow
	Retrct Trans Retrct Retrct Trans Retrct	Retrct Retrct Retrct Retrct	Ret nct Ret nct	Retrct Stow Retrct Stow	Stow Stow Stow Stow
5	Retrct Trans Retrct	Retrct	Ret rct	Retrct Stow	Stow Stow
Retr Retr	rct Trans Retrct rct Trans Retrct	Retrct Retr Retrct Retr	rct Retrct R rct Retrct R	Retrct Stow Retrct Stow	Stow Stow Stow Stow
	ct Trans Ret		Ret rct	ct	
	Retrct Trans Retrct	Retrct Retrct	Dot = 04	č	Ċ

	National Transn
TWA Fit. 800, B747-131, Takeoff to End of Data	Tabular Data No. 2. Revised: December 22, 1999

Time	ALTC	Flevator	Ridder	å ileron	an noc	000	l oad in				004400	5 5 1 1 5 5 5	0.00		Г		- 6	4
(seconds)	(FEET)	Position Left (degrees)	Position (lower) (degrees)	Position R inbd (degrees)	Trailing Inbd (degrees)	Trailing OUTBD (degrees)	Edge Lt. Set 1 (discrete)	Edge Lt. Set 2 (discrete)	Edge Lt. Set 3 (discrete)	Edge Lt. Set 4 (discrete)	Edge Rt. Set 1 (discrete)	Edge Rt. Set 2 (discrete)	Edge Rt. Set 3 (discrete)	Edge Rt. Set 4 (discrete)	Eng 1 (1-T/R)	Eng 2 (1-T/R)	Eng 3 (1-T/R)	Keverser Eng 4 (1-T/R)
20:28:26	-6885 -7695	0.2	-0.7 -0.7 -0.7	2.2	000	0.0.0.	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:28:27	- 7830	0.1	-0.7 -0.7 -0.7	-29.0 -19.1	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:28:28	-7965 -8235	0	-0.7	-19.1	0.0	0.000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:28:29	-8370	0.3	-0.7	-20.9	0000	0000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrot	Ret rct Ret rct	Retrct Retrct	Stow	Stow	Stow	Stow Stow
20:28:30	-8505 -8100	00	-0- 2.0-	6.5	00	0.0 0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:28:31	-8910	0		-18.9 -21.1	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:28:32	-9180	0.2	0 7	-24.7	000	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:28:33	-9315	0.2	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	-19.5 -28.4	0000	à 0000 à 0000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:28:34	-9585 -9720	0.1	-0.8 -0.7	-20.5	000	000	Ret rct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:28:35	-9180	0.2	38.2 -0.8 -0.7	-23.1 -19.5	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:28:36	-9990	-0.2	0.7	1.6	000	0.00	Retrot	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:28:37	- 10125	00	0.0 0.7	12.6 9.9	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow	Stow	Stow	Stow
20:28:38	-10125 -10260	0	000	12.0	000	0.00	Ret rct	Ext	Ext	Ext	Retrct	Retrct	Retrct	Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:28:39	- 10260	00	0000	-7.9 -11.4	000	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct	Retrct	Ret nct	Retrct	Stow	Stow	Stow	Stow
20:28:40	- 10260 - 10260	0	0.0	-23.5	0000	0000	Retrct	Retrct	Trans	Retrct	Retrct Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:28:41	- 103 95	0 0	0.0- 0.0- 0.0-	-21.1 -19.9	00	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrot	Retrct	Stow	Stow		Stow
20:28:42	- 10395 - 10530	0	0-0- 0-0-0-	-20.1	0000	0.0000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow	Stow	Stow	Stow
20:28:43	- 10665	0.2	00000 0000 0000	-20.9	000	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow		Stow
20:28:44	- 10800	0.2	0.03	-26.8	000	0000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow
20:28:45	-11070 -11205	0.2	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3.7 -19.1	0000	0000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:28:46	- 11475	9.0	6.0- 6.0-	-10.3	00	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:28:47	- 11745 - 11880	0.3	0000	-20.1	000	000	Ret rct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:28:48	- 12150	0.4	-0.9	-21.1	00	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow

TWA Fit. 800, B747-131, Takeoff to End of Data Tabilar Data No. 2 Revised: December 22 1999 National Transnort
Sà

Tabular	Data Nc	o. 2, Re	vised: D		Tabular Data No. 2, Revised: December 22, 1999	Nat	onal Tra	nsportat	ion Safe	ty Board								
Time (seconds)	ALTC ALTC A	Elevator Position Left (degrees)	Rudder Position (lower) (degrees)	Aileron Position R inbd (degrees)	Flap pos Trailing Inbd (degrees)	Flap pos L Trailing E OUTBD 5 (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 R Eng 1 (1-T/R) (Reverser Eng 2 (1-T/R)	Reverser R Eng 3 E (1-T/R) (Reverser Eng 4 (1-T/R)
20:28:49	- 12285 - 12420	0.5	0.0- 8.0- 8.0- 8.0- 8.0- 8.0-	11.6 -18.5	0000	0000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:28:50 20:28:51	- 12555 - <u>12690</u>	0.5 0.5	6.0 6.0 6.0	-2.6 -20.5	0000	0000	Retrct Retrct Retrct	Retrct Retrct Retrct	Trans Trans Trans	Retrct Retrct Retrct	Retrct Retrct Retrct	Retrct Retrct Retrct	Retrct Retrct Retrct	Retrct Retrct Retrct	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow
20:28:52 20:28:53	-12420 -12285 -12555 -13095	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0			000000000000000000000000000000000000000	Ret rct Ret rct Ret rct	Retrct Retrct Retrct	Trans Trans Trans	Retrct Retrct Retrct	Retrct Retrct Retrct	Retrot Retrot Retrot	Ret rct Ret rct Ret rct	Retrct Retrct Retrct	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow
20:28:54 20:28:55	- 13230 - 13365 - 13365	0.5		12 -20 -21		000000	Ret rct Ret rct Ret rct	Retrct Retrct Retrct	Trans Trans Trans	Retrct Retrct Retrct	Retrct Retrct Retrct	Retrct Retrct Retrct	Ret nct Ret nct Ret nct	Retrct Retrct Retrct	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow
20:28:56	- 133 65	0.5	0.0- -0.9 8.0-	-20.1	0000	0000	Ret nct Ret nct	Retrct Retrct	Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret nct Ret nct	Retrct Retrct	Stow	Stow	Stow	Stow Stow
20:28:57	- 12960 - 12555	0.4	6.0 6.0 6.0 6.0 6.0 6.0	-19.5 -29.4	000	000	Retrct	Retrot	Trans		Retrot	Retrot	Retrot	Retrct	Stow	Stow	Stow	Stow
20:28:58	- 13095	0.2	0.0- 0.0- 0.0	-26.6	000	000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret nct Ret nct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:28:59	- 12825 - 12690	0.2	0.0 0.0 0.7 8 0.7 8	-13.0 11.6	000	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:29:00	- 12420	0	-0.7 -0.8 -0.8	9.3	000	0.000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:29:01	- 12150 - 11880	-0.2 -0.2	0.000	-21.5 -21.1	000	0.0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:29:02	-11610	-0.2	0.0- 0.0	-19.5	000	0000	Ret nct Ret nct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret nct Ret nct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:29:03	-11340 -11070	-0.4	8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	-19.5	00	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:29:04	-10125	-0.3	0.0 0.0 0.0	-20.5 -18.0	0000	0000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:29:05	-10665	-0.2	∞.∞.0 	-18.5	00	0.0	Ret rct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:29:06	- 10260	0	7.0- 8.0- 8.0-	-15.6 -18.3	0000	0000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:29:07	0666-	-0.1	-0.7 -0.8 -0.7	11.0	000	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:29:08	- 9855	0.2	-0.8 -0.8	-29.0 -23.5	000	0.0	Retrct Retrct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:29:09	-9180 -9990	0.2	0,0,0 0,0,0 0,0,0	-19.1	0000	000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
20:29:10	- 10125	0.3	8.0- 8.0- 9.0-	-30.0 -16.0	00	000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
20:29:11	- 10260 - 10260	0.4	-0.8 -0.8	-13.4	000	000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
20:29:12	- 10395	0.5	-0.7	12.6	0	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow

	Transport
	National
Data	1999
TWA Flt. 800, B747-131, Takeoff to End of Data	Tabular Data No. 2. Revised: December 22. 1999. National Transport

Time	ALTC	Elevator Position Left	Rudder Position (lower)	Aileron Position R inbd	Flap pos [railing Inbd	-lap pos railing)UTBD	Leading Edge Lt. Set 1	g Leading Lead t. Edge Lt. Edge Set 2 Set	Leading Edge Lt. Set 3	Leading Edge Lt. Set 4	Leading Edge Rt. Set 1	Leading Edge Rt. Set 2	Leading Edge Rt. Set 3	Leading Edge Rt. Set 4	Reverser Eng 1	Reverser Eng 2		Keverser Eng 3
(seconds)	(FEET)	(degrees)	(degrees)	(degrees)	(degrees)	degrees)		iscrete)	6	(discrete)	(discrete)	(discrete)	(discrete)	(discrete)	(1-1/	(1-T/R)	(1-	(1-T/R)
			-0.7	12.0	00	0.000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow		Stow
20:29:13	- 10530 - 9855	0.5		6.5	00	000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow		Stow
20:29:14	- 10665	0.2	~ 0- 0- - 0- 0-	-19.5 11.0	00	0.0	Ret nct Ret nct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow		Stow Stow
20:29:15	- 10800 - 10800	0.3	0.0- 0.0- 0.0-	-19.5	0000	00000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow		Stow
20:29:16	- 10935	0	-0.8	-20.5 -18.0	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow		Stow Stow
20:29:17	- 10800 - 10800	0.3	-0.7 -0.8	11.6	000	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow		Stow
20:29:18	0666-	0.3	0,000 0,000 0,000	-21.9 -3.0	0000	0000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow		Stow Stow
20:29:19	- 10665 - 10530	0.3	-0.9 0.9	-21.1	00	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow		Stow
20:29:20	-9855	0.4	9.0- 9.0- 9.0- 9.0- 9.0- 9.0- 9.0- 9.0-	-20.1 -18.5	000	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow	Stow	0,	Stow
20:29:21	-9990 -10125	0.2	-0.9	7.5	000	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow Stow	Stow Stow	0,05	<u>Stow</u>
20:29:22	-9855	00	6.0-0- 6.0-0-0-	-20.1 -20.1	000	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	03	Stow
20:29:23	-9045 -9450	0		-17.0	000	0.0	Ret rct	Retrct	Trans	Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	0,0,	Stow Stow
20:29:24	-9180	0	6.0- 8.0- 8.0-	-19.5 -20.1	0	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	0,	Stow
20:29:25	-8910 -8505	-0.4		6.6	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	0101	Stow Stow
20:29:26	-8505	-0.4 0	6.0 	-21.5 11.4	000	0.00	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	о,	Stow
20:29:27	-8235			-26.	000 (0000 (Retrct Retrct	Retrct Retrct	Trans Trans			Retrct Retrct				Stow Stow		Stow Stow
20:29:28	-7830 -7830	-0.3		-19.5		0.00	ketrct	Ketrct	l rans	ket rct	Ketrct	Ketrct	ketrct	Ketrct	STOW	STOW		STOW
20:29:29	-7695	-0.2	0-0-0	-3.7	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	0,0,	Stow Stow
20:29:30	-7425 -7155	-0.3 -0.4		11.6 11.0	00	0.0	Ret nct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	0,	Stow
20:29:31 20:29:32	-7020 -6750 -6750	-0.3 -0.4		-18.3 -19.1 -17.4	0000000	000000000000000000000000000000000000000	Ret rct Ret rct Ret rct	Retrct Retrct Retrct	Trans Trans Trans	Ret rct Ret rct Ret rct	Retrct Retrct Retrct	Retrct Retrct Retrct	Ret rct Ret rct Ret rct	Retrct Retrct Retrct	Stow Stow Stow	Stow Stow Stow	010101	Stow Stow Stow
20:29:33 20:29:34	-6615 -6615 -6480	0.2 -0.2 -0.1		-13.4 -28.0 -22.5	000000	0000000	Retrct Retrct Retrct	Retrct Retrct Retrct	Trans Trans Trans	Ret rct Ret rct Ret rct	Retrct Retrct Retrct	Retrct Retrct Retrct	Ret rct Ret rct Ret rct	Retrct Retrct Retrct	Stow Stow Stow	Stow Stow Stow		Stow Stow Stow
20:29:35	-6480	-0.3		-20.5	00	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	t t		į

Time ALTC Elevator Rudder Atleron Position Position Position Position Left (lower) inbd (seconds) (fEET) (degrees)(degrees)	20:29:36	20:29:37	20:29:38	20:29:39	20:29:40	20:29:41	20:29:42	20:29:43	20:29:44	20:29:45	20.20.40	0+:23:40	20:29:47	20:29:48	20:29:49	20:29:50	20:29:51	20:29:52	20:29:53
ALTC (FEET)	-6345 -6345	-6345	-6480 -6615	-6615.	-6615 -6615	-6615	-6615	-6615	-6480 -6345	-6345	0165	-6210	-6345	-6345 -6480	-6480	-6615 -6750	-7020	-7155 -7425	-7695
Elevator Position Left (degrees)	0.4	0.2	0.3	0	0.2	0.2	0.2	0	0.1	0.2	0	 	0.3	00	0	00	0.1	0.3	0.3
Rudder Position (lower) (degrees)		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			-0.8 -0.8 -0.8	0-7.00	0-	000		0 - 0 -	0,0,0 0,0,0	500 500 500	-0.9	00000 0000	0.0- 0.0- 0.0-	0.0.8	-0.7	6.0- 6.0- 6.0-	6.0-
Aileron Position R inbd (degrees)	9 -19.1		9.7	3 11.6	8.1 -20.9	5.7	-19.9	-19.1	11.6 13.0	11.0	ć	15.02-	-22.5 -29.4	-30.0	-27.0	-20.1	0.0	-19.1	-24.9
Flap pos Trailing Inbd (degrees)						000	0000		000				0000	000	000	000		000	000
pos Flap pos Leadin ing Trailing Edge L OUTBD Set 1 ees) (degrees) (discr	0.00						0.000		0.00			_	0.0		0.00	0.0	0.0		0.0
Leadin Edge L Set 1 (discr	0 Retrct		U Ketrct 0 Retrct 0	0 0 Retrct 0 Retrct		0 Retrct 0 Retrct	0 Retrct	0 Retrct 0 Retrct	Retrct) Retrct		l Retrct) Retrct Retrct		Retrct	Retrct	Ret rct Ret rct	Retrct	Retect
Leading Edge Lt. Set 2 e)(discrete)	t Retrct		t Ketrct t Retrct	t. Retrct t Retrct		t Retrct t Retrct	t Retrct	t Retrct t Retrct	t Retrct			t Retrct	t Retrct Retrct		Retrct	: Retrct	Retrct Retrct	Retrct	Dot not
t. Edge Lt. Edging Leading t. Edge Lt. Edging (discrete)(discret	tt Trans		tt Trans tt Trans	t. Trans. t. Trans.		t Trans t	t Trans	t Trans t Trans	t Trans	t Trans		t Trans	t Trans t Trans	t Trans	t Trans Trans	Trans	Trans Trans	Trans	Tranc
Leading Edge Lt Set 4 (discrete)	s Ret rct		s Retrct s Retrct	s Retrct		s Retrct s Retrct	sRetrct	s Retrot S Retrot	Retrct			Retrct	Retrot Retrot		Retrct. Retrct	Retrct	Retrct Retrct	Retrct	Dot not
Leading Edge Rt. Set 1 (discrete)	t Retrot		t Retrct t Retrct	t Retrct Retrct		Retrct Retrct		Retrct Retrct	Retrct	Retrct		Retrct	Retrct Retrct		Retrct Retrct	Retrct	Retrct Retrct	Retrct	++ ++ 0
Leading Edge Rt. Set 2 M(discrete)	Retrct		Retrct	Retrct Retrct		Retrct Retrct	~	Retrct Retrct	Retrct	Retrct	Retrot	Retrct	Retrot		Retrct Retrct	Retrct	Retrct Retrct	Retrct	-
Leading Edge Rt. Set 3 M(discrete)	Retrct		. Ret rct Ret rct	Ret.rct Ret.rct		Ret rct Ret rct		Ret rct Ret rct	Retrct	Ret.rct.		Retrct	Ret nct Bet nct		Retrct Retrct	Retrct	Ret rct Ret rct	Retrct	
Leading Edge Rt. Set 4 M(discrete)	Retrot		Retrct Retrct	Retrct. Petrct		Retrct Retrct		Retrct Retrct	Retrct	Retrot	Retrct	Retrct	Retrct	Retrct	Retrct Retrct	Retrct	Retrct Retrct	Retrct	
Reverser Eng 1)(1-T/R)			Stow Stow	Stow		Stow		Stow Stow		Stow	Stow	Stow	Stow		Stow	Stow	Stow	Stow	
Reverser Eng 2 (1-1/R)			r Stow	Stow		Stow		Stow Stow			Stow	Stow	Stow		Stow	Stow	Stow	Stow	
Reverser Eng 3 (1_T/D)			Stow	Stow		Stow	Stow	Stow Stow	Stow	55	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	
Er Er	-																		

Reverser Eng 4 (1-T/R) Stow

Stow Stow Stow

Stow Stow Stow Stow Stow

Stow Stow Stow

Stow Stow Stow Stow

Stow Stow Stow

Stow Stow

Stow Stow

-20-

0 0 0 0 0

-7965 -8235 -8640

20:29:54

20:29:55

0000000

Stow

Stow Stow

Stow Stow

Stow Stow

Retrct Retrct

Ret rct Ret rct

Retrct Retrct

Retrct Retrct

Ret rct Ret rct

Trans Trans

Retrct Retrct

Ret rct Ret rct

0000

10.311.6

000000

Stow Stow Stow Stow

Stow Stow

Stow Stow

Stow Stow

Retrct Retrct

Ret rct Ret rct

Retrct Retrct

Retrct Retrct

Ret rct Ret rct

Trans Trans

Retrct Retrct

Ret rct Ret rct

-19.5

Stow

Stow

Stow

Retrct

Retrct

Retrct

Retrct

Ret rct

Trans

Retrct

Ret rct

0000000

000000

-19.5

0.3

-9855 10125

20:29:58

Stow

Stow

Stow

Retrct

Retrct

Retrct

Retrct

Retrct

Trans

Retrct

Ret rct

0

10.3

0.4 0.4 0.4

-8910 -8505

20:29:56 20:29:57

-9585

	Transr
	National
Data	1999
of	3
TWA Flt. 800, B747-131, Takeoff to End of Data	ar Data No 2 Revised: December
TWA	Tahul

$ \ \ \ \ \ \ \ \ \ \ \ \ \ $	Tabular	Data N	lo. 2, Re	vísed: D	ecemb(1999, Nai	ional Trar	nsportati	on Safet	y Board					- 1		- 1	
1 11 1	Time	ALTC	Elevator Position Left	Rudder Position (lower)	Aileron Position R inhd	os Flap pos ng Trailing OUTRN	Leading Edge Lt. E Set 1	_eading Edge Lt. Set 2	Leading Edge Lt. Set 3	Leading Edge Lt. Set 4	Leading L Edge Rt. E Set 1 S	eading dge Rt. h et 2	Leading Edge Rt. Set 3	Leading Edge Rt. Set 4		Reverser Eng 2		Reverser Eng 4
1 1	(seconds)		(degrees)	(degrees)	(degrees)	(degrees)	(discrete)	(discrete)	(discrete)	(discrete)	(discrete)	discrete)	(discrete)	(discrete)				(1-T/R)
· · · · · · · · · · · · · · · · · · ·	20:29:59	- 10260	0.3	8.0- 9.0- 8.0-				Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
	20:30:00	- 10530 - 10530	0					Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	20:30:01	- 9855	00				Ret	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct		Ret rct Ret rct	Retrct Retrct	Stow	Stow	Stow	Stow Stow
	20:30:02	- 10665 - 10800			-20			Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	20:30:03	-10800						Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow	Stow	Stow	Stow
- 10665 - 0.0 0.0 0.00	20:30:04	- 10800 - 10665						Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
1 1073 0.1	20:30:05	- 10665	0-		12.	000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
1035 0	20:30:06	-9720 -10395						Retrct	Trans	Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
· 10050 · 1 · 0 · 0 · Retrict Retrict Retrict Retrict Retrict Retrict State Retrict State	20:30:07	- 10395						Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
· 1000 · 0.2 <t< td=""><td>20:30:08</td><td>- 10260 - 10260</td><td></td><td>0-0- 0-0-</td><td></td><td></td><td></td><td>Retrct Retrct</td><td>Trans Trans</td><td>Ret rct Ret rct</td><td>Retrct Retrct</td><td>Retrct Retrct</td><td>Ret rct Ret rct</td><td>Retrct Retrct</td><td>Stow Stow</td><td>Stow Stow</td><td>Stow Stow</td><td>Stow Stow</td></t<>	20:30:08	- 10260 - 10260		0-0- 0-0-				Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
· 1012 · 0<	20:30:09	- 10260			9 - 19			Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
-3315 0 0.0 0.0 Retrict Ferrict Ferrict Retrict Retrict Retrict Retrict Retrict Stow	20:30:10	-10125	ľ	-0.8				Retrct Retrct	Trans	Retrct Retrct	Retrct Retrct		Ret rct Ret rct	Retrct Retrct	Stow	Stow	Stow	Stow Stow
-9390 -0.1 -0.8 13.0 0 0.0 Retrict Stow	20:30:11	-9315 -10125						Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
	20:30:12	-9990	-0		13			Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow
990 0 36.6 0 0.0 Retrict Tento Retrict Retrict Retrict Retrict Retrict Stow Stow<	20:30:13	0666- 0666-						Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
1030 0.08 Retrot Trans Retrot Retrot Retrot Stow Stow </td <td>20:30:14 20:30:15</td> <td>-9990 -9990 -9315</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Retrct Retrct Retrct</td> <td>Trans Trans Trans</td> <td>Retrct Retrct Retrct</td> <td>Retrct Retrct Retrct</td> <td>Retrct Retrct Retrct</td> <td>Ret rct Ret rct Ret rct</td> <td>Retrct Retrct Retrct</td> <td>Stow Stow Stow</td> <td>Stow Stow Stow</td> <td>Stow Stow Stow</td> <td>Stow Stow Stow</td>	20:30:14 20:30:15	-9990 -9990 -9315						Retrct Retrct Retrct	Trans Trans Trans	Retrct Retrct Retrct	Retrct Retrct Retrct	Retrct Retrct Retrct	Ret rct Ret rct Ret rct	Retrct Retrct Retrct	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow	Stow Stow Stow
-9990 0 -0.8 -14.4 0 0.0 Retrict Retrict Retrict Retrict Retrict Stow Stow<	20:30:16	0666-						Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	Stow	Stow
1 -9990 0 -0.0 Retrict Retrict Retrict Retrict Retrict Retrict Retrict Stow Stow Stow Stow Stow Stow Stow Sto	20:30:17	0666- 0666-						Retrct Retrct	Trans	Retrct Retrct	Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow	Stow	Stow	Stow
-10125 0 -0.9 -18.9 0 0.0 Retrict Stow Stow<	20:30:18	-9990						Retrct	Trans	Retrct	Retrct	Retrot	Retrct	Retrct	Stow	Stow	Stow	Stow
-10260 -0.2 -0.9 6.5 0 0.0 Retrot Tans Retrot Retrot Retrot Stow	20:30:19	-10125 -10125			-26			Retrot	Trans	Retrot	Retrot	Retrot	Retrot	Retrot	Stow	Stow	Stow	Stow
-10260 -0.3 -0.9 11.6 0 0.0 Retrott Retrott Retrott Retrott Retrott Stow 0 0.0 0	20:30:20	- 10260	'	-0.9				Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	Stow	Stow
-10530 0 -0.9 -27.0 0 0.0 Retrct Retrct Trans Retrct Retrct Retrct Retrct Stow Stow Stow Stow -0.9 -0.9 0.0 Retrct Retrct Retrct Retrct Stow Stow Stow Stow	20:30:21	- 10260 - 10395	0-					Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow	Stow	Stow	Stow
	20:30:22	- 10530						Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	Stow Stow	Stow Stow

	Transnor
	Nationa
Data	1999
TWA Flt. 800, B747-131, Takeoff to End of Data	2 Revised: December 22
В7	Ż
TWA Flt. 800,	Tahular Data

Time ALTC El	ALTC	evator sition	Rudder Position	Aileron Position	Flap pos Trailing	Flap pos Trailing	Leading Edge Lt.	ig Leading Lead t. Edge Lt. Edge	ing Lt.	Leading Edge Lt.	Leading Edge Rt.	Leading Edge Rt.	Leading Edge Rt.	Leading Edge Rt.	Reverser Eng 1	Reverser Eng 2	Β'n	Reverser Eng 3
(seconds)	(FEET)	Left (degrees)	(lower) (degrees)	R inbd (degrees)	Inbd (degrees)	UTBD degrees)	set I (discrete)	set 2 (discrete)	Set 3 (discrete)	Set 4 (discrete)	Set I (discrete)	Set 2 (discrete)	Set 3 (discrete)	Set 4 (discrete)	(1-T/R)	(1-T/R)	(1.	(1-T/R)
20:30:23	- 10665 - 10800	-0.1 0	6.0- 6.0-	-24.7 -18.3	000	0000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow		Stow
20:30:24	-11070	0	0-0-0	9.9	000	000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow		Stow Stow
20:30:25	- 11205	0		ľ	0	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow		Stow
20:30:26	- 1134U - 11475	.0		-19.9		0000	Retrct	Retrct	Trans			Retrct		Retrct	Stow	Stow		Stow
20:30:27	- 11610	-0.2	8.0-0- 0-0-0-	10.3	0 0	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Retrct Retrct		Stow Stow	Stow Stow		Stow Stow
	- 11745	0-		-9.3	000	000	T								T			
20:30:28	- 12015	0		-19.5	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow		Stow Stow
20:30:29	- 12150 - 12285	0.2	0.0- 0.0- 0.0- 0.0-	-24.9	000	0.0 0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow		Stow
20:30:30	- 12420	0		-17.4 -29.4	0	0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow		Stow Stow
20:30:31	- 12555 - 12825	-0.1	0,0,0 0,0,0	-23.5	0000	0000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	••	Stow
20:30:32	- 12825	0	6.0- 6.0-	-19.1 -17.8		000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow		Stow Stow
20:30:33	- 13095 - 13230	00	 	-23.1	000	0.00	Ret rct	Retrct	Trans	Ret rct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	••	Stow
20:30:34	- 13500	0	-0.8	-22.9	00	0.0	Retrct	Retrct	Irans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	0.	Stow
					0	0.0	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	0,	Stow
20:30:35	- 13635 - 13905	00	0-0-0-	9.7	0000	000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	0.	Stow
20:30:36	- 14040	0.2	0.0	-7.9 11.6		0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	0,0)	Stow Stow
20:30:37	- 14175 - 14445	0.3		2.2	00	0000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Ret rct	Retrct	Stow	Stow	0,	Stow
20:30:38	- 14715		0000 0000	-22.1 -21.9	0000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	0101	Stow Stow
20:30:39	- 14985 - 15120	0.3		-19.5	00	000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	0,	Stow
20:30:40	- 15390	0.2	8.0-0-0- 8.0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-	-2.6 13.0	0000	0000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow	0,01	Stow Stow
20:30:41	- 15390 - 15660	0.1		-19.5	00	000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	0,	Stow
20:30:42	- 15660	0.3	0,0,0,0 0,0,0,0 0,0,0,0	-20.5 -21.9	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans	Ret rct Ret rct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow		Stow Stow
20:30:43	- 15795	0.2		-8.1	000	0.00	Ret rct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow		Stow
20:30:44	- 15795 - 14985	0.3		-18.5 -26.4		- 000 - 000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	Ret rct Ret rct	Retrct Retrct	Stow Stow	Stow Stow		Stow Stow
20:30:45	- 15930	0.2		-27.8	000	000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct	Retrct	Retrct	Stow	Stow	~	Stow

	Transpo
	National
TWA Flt. 800, B747-131, Takeoff to End of Data	oular Data No. 2. Revised: December 22, 1999. N
F	F

01:301:46 119:30 0.3 0.3 0.3 0.1 0.0 Ref rct Fash rct Fash rct Ref rct	T1me ALTC E1. Po: (deconds) (FEET) (d	ALTC (FEET)	ed r Et r	Rudder Position (lower) (degrees)	Aileron Position R inbd (degrees)	ap pos ailing bd egrees)	pos ling D rees)		g Leading Lead t. Edge Lt. Edge Set 2 Set ete) (discrete) (dis	ling b Lt. 3 screte)	eading Ige Lt. et 4 liscrete)	Leading Edge Rt. Set 1 (discrete)	Set (di	ding e Rt. 2 screte)	Leading Leading Edge Rt. Edge Rt. Set 2 Set 3 (discrete)	Leading Leading Edge Rt. Edge Rt. Set 3 Set 4 (discrete)	ding Leading Leading Reverser e.Rt. Edge.Rt. Eng 1 2 Set 3 Set 4 screte)(discrete)(discrete)(1-T/R)	Leading Leading Edge Rt. Edge Rt. Set 3 Set 4 (discrete)	Leading Leading Reverser Edge Rt. Edge Rt. Eng 1 Set 3 Set 4 (discrete)(discrete)(1-1/R)
47 :15330 0 -0.1 -0.3 :14.4 0 0.0 Retrict Trans Retrict 48 :15330 -0.1 -0.3 :15.8 0.0 Retrict Retrict Trans Retrict 49 :15330 -0.1 -0.3 :15.8 0.0 Retrict Retrict Trans Retrict 49 :15735 0.1 -0.3 :15.8 0 0.0 Retrict Retrict Trans Retrict 55 -15736 0.1 0.3 13.4 0.0 Retrict Retrict Trans Retrict 55 -0.1 -0.3 -13.4 0 0.0 Retrict Retrict Trans Retrict 55 -15730 0.1 0.0 Retrict Retrict Trans Retrict 54 -15700 0.2 -0.3 -10.4 0.0 Retrict Retrict Trans Retrict 54 -16600 0.2	20:30:46		0		-21 -17	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans		Retrct	_	Retrct Retrct	Retrct Retrct		Retrot Retrot Retrot Retrot Retrot	Retrct Retrct Stow Retrct Retrct Stow	Retrot Retrot Retrot Retrot Retrot
-18 - 1579 -0.1 -0.3 -15.2 0 0.0 Retrict Retrict Tans Retrict -9 -1975 -0.1 -0.3 -17.3 0 0 0 Retrict Retrict Tans Retrict -15765 -0.1 -0.3 13.6 0 0 0 Retrict Retrict Tans Retrict -15795 -0.12 -0.3 -1.3 0 0.0 0 Retrict R	20:30:47				- 14	000	0.00	Ret rct	Retrct	Trans		Retrct		Retrct		Retrct Retrct Retrct	Retrct	Retrct Retrct Stow	Retrct
	20:30:48	- 15795	0-		-15 -17	000	0.0.0	Ret rct Ret rct	Retrct Retrct	Trans Trans		Retrct		Retrct	Retrct Retrct	Ret	. Retrct Retrct	. Retrct Retrct Stow	. Retrct Retrct
-15736 -0.2 -0.8 -5.9 -4.3 0 0.0 Retrict	20:30:49				13	000	000	Retrct	Retrct	Trans		Retrct Retrct		let rct let rct	Retrct Retrct Retrct Retrct	Retrct Retrct Retrct Retrct Retrct	Retrct Retrct Retrct	Retrct Retrct Stow Retrct Retrct Stow	Retrct Retrct Retrct
-15795 -0.1 -0.9 11.4 0 0.0 Retrict Retrict Trans Retrict Retric	20:30:50		_		-4-	000	000	Retrct	Retrct	Trans	Retrct	Retrct	æ	Retrct	etrct Retrct		t Retrct	t Retrot Retrot Stow	t Retrct Retrct
15795 0 -0.9 -0.8 -13.1 -1930 0 0.0 -0.8 Retrot Retrot Retrot Retrot -15930 0 0.0 -0.8 -19.5 0 0.0 -0.8 Retrot	20:30:51	- 15795 - 15795	0-		11	000	0.00	Ret rct Ret rct	Retrct Retrct	Trans Trans		Retrct Retrct	е. В.	Retrct Retrct		trct Retrct Retrct trct Retrct Retrct	Retrct Retrct Retrct Retrct	Retrct Retrct Stow Retrct Retrct Stow	Retrct Retrct Retrct Retrct
	20:30:52				-23 -19	00	0.0	Retrct	Retrct	Trans		Retrct	Retrct	rct		rct Retrct Retrct	Retrct	Retrct Stow	Retrct Retrct Stow Stow
- -	20:30:53				- 18	0000	0.000	Ret rct Ret rct	Retrct Retrct	Trans Trans		Retrct Retrct	Retrct Retrct	ct.		ct Retrct Retrct ct Retrct Retrct	Retrct Retrct Retrct Retrct	Retrct Retrct Stow Retrct Retrct Stow	Retrct Retrct Retrct Retrct
-16470 0.2 -0.8 12.0 0 0.0 Retrct Retrct <t< td=""><td>20:30:54</td><td></td><td>00</td><td></td><td>-20 -17</td><td>000</td><td>0.00</td><td>Retrct</td><td>Retrct</td><td>Trans</td><td></td><td>Retrct</td><td>Retrct</td><td>t</td><td></td><td>t Retrct Retrct</td><td>Retrct</td><td>Retrct Retrct Stow</td><td>Retrct Retrct Stow</td></t<>	20:30:54		00		-20 -17	000	0.00	Retrct	Retrct	Trans		Retrct	Retrct	t		t Retrct Retrct	Retrct	Retrct Retrct Stow	Retrct Retrct Stow
-16605 0.3 -0.7 5.9 0 0.0 Retrot Trans Retrot Retrot -17710 0.5 -0.7 -19.5 0	20:30:55		0		12	000	0.00.0	Ret rct Ret rct	Retrct Retrct	Trans Trans		Retrct Retrct	Retrct Retrct	цц		t Retrct Retrct t Retrct Retrct	Retrct Retrct Retrct Retrct	Retrct Retrct Stow Retrct Retrct Stow	Retrct Retrct Retrct Retrct
-17010 0.4 -0.7 -10.3 0 0.0 Retrct Retrct Trans Retrct Retrct <t< td=""><td>:30:56</td><td></td><td>00</td><td></td><td>-19</td><td>0000</td><td>0000</td><td>Retrct</td><td>Retrct</td><td>Trans</td><td></td><td>Retrct</td><td>Retrct</td><td>t L</td><td></td><td>t Retrct Retrct</td><td>Retrct Retrct</td><td>Retrct Retrct Stow</td><td>Retrct Retrct</td></t<>	:30:56		00		-19	0000	0000	Retrct	Retrct	Trans		Retrct	Retrct	t L		t Retrct Retrct	Retrct Retrct	Retrct Retrct Stow	Retrct Retrct
-1750 0.3 0.7 -23.7 0 0.0 0	20:30:57 20:30:58				-10 -19 -18	00000		Retrct Retrct Retrct	Retrct Retrct Retrct	Trans Trans Trans			Retrct Retrct Retrct	ццц		t Retrct Retrct t Retrct Retrct t Retrct Retrct t Retrct	Retrct Retrct Retrct Retrct Retrct Retrct	Retrct Retrct Stow Retrct Retrct Stow Retrct Retrct Stow	Retrct Retrct Retrct Retrct Retrct Retrct
1 -17685 0.4 -0.8 -17.2 0 0.0 Retrot Re	20:30:59				- 23	000	0000	Ret rct Ret rct	Retrct Retrct	Trans Trans		Retrct Retrct	Retri Retri	tt		ct Retrct Retrct ct Retrct Retrct	Retrct Retrct Retrct Retrct	Retrct Retrct Stow Retrct Retrct Stow	Retrct Retrct Retrct Retrct
-18090 0.3 -0.9 -23.1 0 0.0 Retrct Trans Retrct Retrct <t< td=""><td>20:31:00</td><td></td><td></td><td></td><td>-17 -19</td><td>000</td><td>0.00</td><td>Retrct</td><td>Retrct</td><td>Trans</td><td></td><td>Retrct</td><td>Retro</td><td>н,</td><td></td><td>Retrct</td><td>Retrct Retrct</td><td>Retrct Retrct Stow</td><td>Retrct Retrct Stow Stow</td></t<>	20:31:00				-17 -19	000	0.00	Retrct	Retrct	Trans		Retrct	Retro	н,		Retrct	Retrct Retrct	Retrct Retrct Stow	Retrct Retrct Stow Stow
-0.7 -0.0 0.0 -0.0 -0.0 -0.0 -0.1 -0.7 -0.7 -0.0 -0.0 -0.0 -0.0 -0.0 -0.1 -0.7 -0.7 -0.7 -0.0 -0.0 Retrict -18630 -0.2 -0.8 -0.0 -0.0 Retrict	20:31:01 20:31:02					00000	00000	Retrct Retrct Retrct	Retrct Retrct Retrct	Trans Trans Trans		Retrct Retrct Retrct	Retro Retro	ませせ		Ret rct Ret rct Ret rct	Retrct Retrct Retrct Retrct Retrct Retrct	Retrct Retrct Stow Retrct Retrct Stow Retrct Retrct Stow	Retrct Retrct Retrct Retrct Retrct Retrct
-18495 0.2 -0.8 4.9 0 0.0 Retrot Retrot Trans Retrot Retrot Retrot Print Retrot Retrot Retrot -0.8 11.0 0 0.0 0.0 0.0 Retrot Retro Retrot Retrot Retrot Retrot Retrot Retrot Retrot Retro Retrot Retro Retrot Retro	20:31:03		0		2-	0000	0000	Ret rct	Retrct	Trans		Retrct	Retro	방 전		Ret rct	Retrct Retrct	Retrot Retrot Stow	Retrot Retrot Stow Stow
	20:31:04		00		$^{+11}$		0000	Retrot	Retrct	Trans		Retrot	Retro	5 5		thethet Retroct	Retrct Retrct	Retrct Retrct Stow	Retrct Retrct
	:31:06		0		-19.1 -18.5	0000	0000	Retrct	Retrct	Trans	Retrct	Retrct	Retrct			Retrct Retrct	Retrct Retrct	Retrct Retrct Stow	Retrct Retrct
0 -0.3 -19.1 0 0.0 Retrct Retrct Trans Retrct Retrct -0.8 -18.5 0 0.0 -0.8 -0.8 -0.8 -0.0 0.0	20:31:07		0.4	4 -0.9 -0.8	-18.0				Retrct Retrct	Trans Trans	Ret Ret	Retrct Retrct	Retrct Retrct	ىر بر	Ret Ret		Retrct Retrct Retrct Retrct	Retrct Retrct Stow Retrct Retrct Stow	Retrct Retrct Retrct Retrct
06 -18765 0 -0.3 -19.1 0 0.0 Retrict Retrict Trans Retrict Retrict 0 -18900 0.2 -0.3 -18.5 0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	20:31:08		00		7.5 -18.5	000	0000		Retrct	Trans	Ret	Retrct	Retrct	t	Ret	Retrct	Retrct	Retrct Stow	Retrct Stow Stow
06 -18765 0 -0.3 -19.1 0 0.0 Retrot Retrot Retrot Retrot Retrot 0.0 0.0 0.0 Retrot Retrot Retrot 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	20:31:09	- 19035	0.2	2 -0.8	-5.3	000	000	Ret rct Ret rct	Retrct Retrct	Trans Trans	Retrct Retrct	Retrct Retrct	Retrct Retrct	방법		ct Retrct Retrct ct Retrct Retrct	Retrct Retrct Retrct Retrct	Retrct Retrct Stow Retrct Retrct Stow	Ret rct Ret rct

		<u>`</u>
	/ Board	and the a
	on Safety	
	nsportati	
	ional Tra	
ata	1999, Nat	
TWA Flt. 800, B747-131, Takeoff to End of Data	Tabular Data No. 2, Revised: December 22, 1999, National Transportation Safety Board	Address Flas and Flas and Londons Landons Landons
akeoff tc	ed: Decel	0.110
47-131, 7	2, Revise	Duddon Duddon
. 800, B7.	Data No.	
TWA FIt.	Tabular I	

								_										20:31:12
Stow							Retrct		Trans			0.0	0		-0.8			
Stow	Stow	Stow	Stow	Retrct	Ret rct	Retrct	Retrct	Retrct	Trans	Retrct	Retrct	0.0	000	-24.1		0.2	- 19170	20:31:11
Stow	Stow	Stow	Stow	Retrct	Retrct	Retrct	Retrct	Retrct	Trans	Retrct	Retrct	0.00	000	-17.8	0,0,0	0.2	- 19170 - 19170 - 19170	20:31:10
Stok			Stow						Tranc	Datrot		0						20.31.10
(1-T/R)	(1-T/R)	(1-T/R)	discrete) (1-T/R)		iscrete	discret	discrete)	(discrete) (discrete)	discrete)	discrete)	discrete)	(degrees)		(degrees)	53	(degrees)	(FEET)	(seconds)
Eng 4	Eng 3		Eng I	edge Rt. Set 4	ge Kt. it 3	Edge Kt. Set 2	Edge Rt. Set 1	Edge Lt. Edge Kt. Set 4 Set 1	Edge Lt. Set 3	Irailing Edge Lt. Edge Lt. OUTBD Set 1 Set 2	Edge Lt. Set 1	l railing OUTBD	lrailing Inbd	Josition Position (lower) R inbd		Position Left		
Reverser	Reverser	Reverser	Reverser	_eading	ad ing	Leading	Leading	Leading	Leading	Leading	Leading	Flap pos	Flap pos	Aileron		Elevator	ALTC	Time

TWA Flt. 800

B747- 131, Landing at JFK TABJFK1, Revised: December 22, 1999

National Transportation Safety Board

TABJ	FK1, R	evised:	Decemb Pitch	er 22, 1 Elevator	999, Nat	ional Tra ®11	Insportat	ion Safe	e <mark>ty Boar</mark> IEPR	d EPR	EPR		Lang	Vent	VHF	Ditab
			Angle	Position Right	Heading	Angle	(upper)	Attack	Engine 1	Engine 2	Engine 3	EPR Engine 4	Long. Accel	Vert. Accel.	* nr	Pitch Trim Stab Pos
<u>(seconds</u> 0.0		(KNOTS) 140	(dearees) 1.4 1.8	(degrees) -0.3	(degrees) 308 306	(dearees) -1 -1	(degrees) -0.18 0.00	(dearees) 7 7	(ratio) 1.02	<u>(ratio)</u> 1.04	<u>(ratio)</u> 1.04	<u>(ratio)</u> 1.07	(q) 0.05 0.05	0.98		(degrees) 6
1.0							0.09	7	1.00	1.04	1.04	1.07	0.05	0.99		
1.0	622.00	141 140		0.0 0.0	306	-1	0.18 0.18 0.27	7	1.02 1.02	1.04 1.04			0.05	1.01	Off	6 6
2.0	617.00	141		0.1	20.6		0.27		1.02	1.04	1 0 3	1.07	0.06	1.02 1.03		6
2.0	607.00		2.2 2.5	0.1	306 306	-2	0.36	7	1.02	1.04	1.03	1.07	0.06	1.04 1.04		0
3.0	602.00	141	2.9	0.0	305	-2	0.54	7	1.02	1 04	1.04	1 07	0.06 0.06 0.06			6
	002.00	141 142	2.9	0.0		- 2	0.45	7	1.02	1.04 1.04	1.04	1.07 1.08	0.07	1.05 1.05	Off	6
4.0	592.00 587.00	142	2.9 2.9	-1.5	305 305	-3	0.54 0.63	7	1.04	1.05	1.05	1.08	0.07 0.07 0.07	1.06	Off	6
							0.90						0.07 0.07 0.06	1.06 1.05		
5.0	577.00	134 141	2.9	-1.7 -1.6	305	- 2 - 3	0.99 0.99	7	1.04 1.04	1.05 1.05	1.05 1.05	1.09 1.09	0.07	1.03 1.02	Off Off	6
6.0	572.00			-1.0	305	-2	0.99		1.04	1.05	1.05	1.09	0.06 0.06 0.06	0.99		6
0.0	567.00	141	2.5	-1.0	305		1.08	7	1.04	1.05	1.05	1.05	0.06	0.98 0.97		Ŭ
7.0	557.00	141	2.2	-0.4	305	-2	1.08	7	1.04	1.05	1.05	1.09	0.06 0.06 0.06	0.98		6
		141		-0.5		- 2 - 1	1.08 0.99	7	1.04	1.05	1.05 1.05	1.09	0.06	0.98 0.99	Off	6 6
8.0	552.00 547.00		2.5	-1.5	305	-1	0.72 0.54	7	1.04	1.05	1.05	1.09	0.07	1.02 1.02	Off	6
							0.72	7					0.06 0.06 0.06	1.02		
9.0	537.00	142 134	2.2 2.2	-2.1 -2.2	305 305	-1	0.72 0.72	7	1.04 1.04	1.05 1.05	1.05 1.05	1.09 1.09	0.06	1.01 1.00	Off	6 6
10.0	527.00	142	1.8	-2.1	305	-1	0.72		1.04	1.05	1.05	1.09	0.06 0.06 0.06	0.98		6
	522.00					_	0.90 0.99	6					0.06 0.05 0.05	0.98	Off	
11.0	517.00	142	1.4	-1.7	305	0	0.99	6	1.04	1.05	1.09	1.09	0.05	0.97 0.97		6
			1.1	-1.3	305	0	1.08 1.08		1.04	1.05	1.05	1.08	0.05	0.97		6
12.0	507.00 497.00	142 142	1.1	36.9	305	0	0.90 0.90	6 6	1.04	1.05	1.05	1.09	0.05	0.98	Off Off	6
							0.72	6					0.05 0.05 0.05	0.98		
13.0	487.00	142	1.1 1.1	-0.8 -0.3	305 305		0.72	6	1.04 1.04	1.05 1.05		1.09	0.05	0.98 0.98	Off	6 6
14.0	477.00	142	1.4	-0.4	305	0	0.90	7	1.04	1.05	1.05	1.08		0.99 1.00	Off	6
	467.00	136					1.08 0.99					1.08	0.06 0.06 0.06	1.03		
15.0	457.00	143	1.4 1.8	-0.5		1	0.99	7	1.04	1.05	1.05	1.08	0.06	1.03 1.03	Off	6
			1.8	-0.4	305	1	0.90 0.90		1.04	1.05			0.06 0.06 0.06	1.03 1.03		6
16.0	442.00 437.00	144 143		-0.3	305	1	0.72		1.04	1.05	1.05 1.05	1.08 1.08	0.06	1.02	Off	6
							0.54						0.06 0.06 0.06	1.04 1.03		
17.0	432.00	144	2.2 2.2	-0.7 -1.3	305 305		0.36 0.27 0.18	6			1.05	1.08	0.06 0.06 0.06	1.02		6 6
18.0				-1.3	305	0	0.27	7	1.04	1.05	1.05	1.08	0.06	1.01 1.00	Off	6
	412.00	142					0.36	8		1.05	1.04	1.08	0.06 0.06 0.07	1.02		
19.0	402.00	134	2.2	-1.6	305 305		0.45 0.45	7	1.04	1.05	1.05	1.08	0.07	1.04 1.07	Off	6
			2.2	-2.1	303	1	0.45	7					0.06	1.03 1.01		6
20.0	392.00 387.00			-2.1	306	1	0.54 0.54		1.04 1.04					1.00	Off	6
													0.06	0.98 0.98		
21.0	377.00	142	1.1	-1.5 -0.4	306 306	1	0.54 0.54 0.54		1.04	1.05	1.04	1.08	0.05 0.05 0.05	0.97 0.98 0.98		6
	267.00	1			201	_	0.54		1.04	1.04	1.04	1.00	0.05	0.98		
22.0	367.00	144 144		0.0	306	Ű	0.54 0.54		1.04 1.03				0.05	0.98	Off	6
23.0	357.00 352.00		1.4	0.0	306 306		0.54 0.54		1.03	1.04	1.04	1.08	0.05	1.00	Off	6
	552.00		1.4	-1.3	500	0	0.34 0.72 0.81	7					0.06	1.05 1.05		· · ·
24.0	342.00	136 144		-1.0	306	-1	0.72 0.63		1.03 1.03		1.04 1.04			1.04	Off	6
		L 17					I	6	l 1.03	L	L	l 1.00	0.06	1.03		1

TADJI Time	MSL Alt		Decemb Pitch Angle	Elevator Position Right	Maq.	Roll Angle	Rudder Position (upper)	Angle of Attack	EPR Engine 1	EPR	EPR Engine 3	EPR Engine 4	Lonq. Accel	Vert. Accel.	VHF	Pitch Trim Stab Pos
	(FEET)			(dearees)	(dearees)		(degrees)	(dearees)		(ratio)		(ratio)	(q) 0.06	(q) 1.03		(dearees)
25.0	332.00 327.00	144	1.8 1.8	-1.0 -1.4	306 306	0 0	0.90 0.99 1.26	6	1.03	1.04	1.04	1.08	0.05	1.03 1.03 1.02	Off	7 7
26.0	317.00		1.8	-1.3	306	0	1.26	6	1.03	1.04				1.01 1.01 1.01	Off	7
		144					1.26 1.35		1.03	1.04	1.04		0.05 0.05 0.05	1.00 1.00 1.00		
27.0	307.00 302.00		1.4 1.4	-1.5 -0.5	306 306	0 0	1.17 1.08 0.81	6	1.03	1.04	1.04	1.08	0.05	0.98 0.98 0.99		7 6
28.0	292.00	144	1.4	0.0	306	0	0.81		1.03	1.04	1.03	1.08	0.05 0.05	0.99 0.98 0.98	Off	7
		142					0.63 0.36		1.03	1.04	1.03	1.08	0.04 0.05 0.05	0.98 0.98 0.99		
29.0	282.00 272.00		1.8 2.5		306 306	-1 -2	0.00 0.00	7	1.03	1.04	1.03	1.08	0.05	1.00 1.03		7 7
30.0	262.00	142	2.9	-1.3	306	-2	0.00	8	1.03	1.04	1.03		0.06 0.06 0.06	1.04 1.05 1.07	Off	7
		142					0.18 0.18		1.03	1.04	1.03	1.07	0.07 0.08 0.08	1.08 1.11 1.12	Off	
31.0	252.00 247.00		3.2 2.9	-2.5 -3.1	306 306	-3 -2	0.27	8	1.03	1.04	1.03	1.07	0.07	1.12 1.11 1.11		7 7
32.0	247.00			-3.3	306	-1		6	1.03				0.07 0.06 0.05	1.13 1.13 1.08	Off	7
		144					1.17 1.53		1.03	1.04	1.03	1.07	0.05 0.04 0.04	1.01 0.98 0.94		
33.0	242.00 222.00	144	1.4 1.8	-0.4 -0.2	306 309	0	2.07 2.07	5	1.03	1.04	1.03	1.07	0.03 0.04 0.04	0.94 0.93 0.95		7
34.0	222.00		1.8	-0.2	306	0	2.07	6	1.03				0.04 0.04 0.04	0.96 0.97 0.98		7
		142					1.44 0.72		1.03	1.04	1.03	1.07	0.04 0.05 0.05	0.98 0.99 1.00		7
35.0	222.00 212.00	142	2.2 2.5	-0.2 -2.2	<u>306</u> 306	-1	0.00	6	1.03	1.04	1.03	1.06	0.05 0.05 0.05	1.00 <u>1.00</u> 1.03		7
36.0	202.00	143	2.5	-2.4	306	-1	0.18	6	1.03	1.04	1.03	1.07	0.06 0.05 0.06	1.05 1.04 1.05	Off	7
		144					0.27 0.18		1.03	1.04	1.03	1.07	0.06 0.05 0.05	1.04 1.03 0.99	Off	7
37.0	197.00 192.00	142	2.2 1.8	-1.6 -0.5	306 306	-1	0.54 0.90	7	1.03	1.03	1.03	1.07	0.04 0.04 0.04	0.97 0.98 0.99		7
38.0	172.00		1.8	-1.1	309	-1		5	1.03		1.03		0.05 0.04 0.04	0.99 0.99 0.98	Off	7
		142					0.90 0.54		1.03	1.03	1.03	1.07	0.04 0.05 0.05	0.97 0.98 0.99		7
39.0	172.00 162.00	144	1.8 1.8	-0.5 0.0	306 306	-1 -1	0.54	6	1.03	1.03	1.03	1.07	0.05 0.06 0.05	1.02 1.03 1.02	Off	7
40.0	162.00		2.2	-1.5	306	-1		7	1.02	1.03			0.05 0.05 0.05	1.03 1.02 1.03		7
		142					0.81 0.72		1.02	1.03	1.02	1.07	0.05 0.05 0.05	1.03 <u>1.04</u> 1.02	011	7
41.0	152.00 142.00		2.2 2.2	-1.5 -0.2	306 306	-1 0	1.53	6	1.02	1.03	1.02	1.07	0.04 0.04 0.04	0.99 0.99 0.98		7
42.0	137.00		2.2	-0.3	305	0		6	1.02				0.04 0.04 0.05	0.98 0.98 0.99	Off	7
		140					1.08 0.72		1.02	1.03	1.02	1.07	0.04 0.05 0.05	1.01 1.02 1.01		7
43.0	122.00 117.00		2.5 2.5	0.0	308 305	0 -1	0.63 0.72	7	1.02	1.03	1.02	1.07	0.05 0.05 0.06	1.01 1.02 1.06	Off	7
44.0	107.00		2.5	-0.8	305	-1	0.54	7	1.02	1.03	1.02	1.07	0.06 0.06 0.05	1.06 1.05 1.02	Off	7
		140		-0.4			0.00 0.09		1.02	1.03	1.02	1.07	0.05 0.05 0.05	1.02 1.01 1.02	011	/
45.0	102.00 92.00		2.5 2.9	0.9	305 305	-1 -1	0.45 0.54	7	1.02	1.03	1.02	1.07	0.05 0.06	1.02 1.02 1.04	Off	7
							0.63						0.06 0.06 0.06	1.04		+
46.0	87.00	140 140	2.9	1.1 0.0	305	-1	0.72 0.54 0.72	7	1.02 1.02				0.06 0.06 0.06	1.05 1.04 1.04		7 7
47.0	77.00 72.00	140	2.9 2.9	0.0	305 308	0	1.26 1.08	7	1.02	1.03	1.02	1.07	0.06 0.06 0.06	1.03 1.04 1.04	Off	7
							0.45						0.07 0.06 0.06	1.02 1.02 1.02		
48.0	62.00	138 142		0.6 2.5	305	-1 -1	0.54 1.17 1.53	7	1.02 1.02				0.05 0.06 0.06	1.03 1.02 1.01	Off	7 7
49.0	57.00 52.00		3.2	2.7	305 306	0	1.62 1.53	7	1.02	1.03	1.03	1.07	0.06 0.05 0.06	1.03 1.03 1.01	Off	7

ne	MSL Alt	IAS (KNOTS)	Pitch Angle	Elevator Position Right	Heading	Roll Angle (degrees)	Rudder Position (upper)	Angle of Attack	EPR Engine 1	EPR Engine 2	EPR Engine 3 (ratio)		Lonq. Accel	Vert. Accel. (q)	VHF	Pitch Trim Sta Pos (degrees
50.0	47.00	139 138		4.1 2.0	306	1	2.52 2.61 4.32 7.92		7 1.02 7 1.02	1.03 1.03				1.01 1.04 1.05 1.06 1.06	Off	
51.0	42.00 37.00	134	4.0	6.3	307	1	9.27 6.75	-	7 <u>1.02</u> 3	1.03	1.03	1.07	0.08 0.07 0.07 0.06	1.05	Off	
52.0	37.00	136 134		3.3 4.6		0	-0.63 -1.53 0.18		1.02 1.02	1.03 1.03			0.07 0.08 0.08 0.09 0.09	1.01 1.02 1.06 1.11 1.08	Off	
53.0	37.00 32.00	134	5.0	7.1	309	- 1	0.99		7 1.00	1.01	1.01	1.04	0.09 0.09 0.09 0.08	1.09 <u>1.05</u> 1.05 1.03	Off Off	
54.0	27.00	132	5.0 5.4	6.5 3.6	309 309	- 1 - 1	0.72 0.90 1.35 1.35		7 1.00 7 1.01	1.01 1.01	1.01 1.01		0.06	1.02 1.01 1.03 1.05 1.03	Off	
55.0	27.00 22.00	133 132		6.9	309	- 1			7 1.00 3 7	1.01	1.01	1.03	0.06 0.06 0.06 0.06 0.06 0.05	1.02 1.03 1.04 1.02 1.02 1.02	Off	
56.0	22.00	132	5.0 4.7	4.9 5.0	30 8 307	- 1 - 1	1.17 0.81		7 1.00 7 1.00	1.01 1.01	1.01 1.01	1.03	0.06 0.04 0.04	1.04 1.05 1.03 1.03 1.06		
57.0	22.00 27.00	130 124		5.6	307	0	0.54 4.41 5.49 5.40	-	7 1.01	1.01	1.01	1.03 1.03	0.03 0.05 0.04 0.03 0.00 0.01	1.06 1.06 1.00 1.00 1.01 0.99		
58.0	22.00	128	4.3 4.3	5.3 5.1	<u>307</u> 307	1	6.21 7.65 7.02		5 <u>1.01</u> 5 1.00	1.01 1.01	1.01	1.02	0.01 0.00 0.02	0.96 0.99 1.02		
59.0	27.00 27.00	129 124		0.4	308	3	7.83 7.83 7.20 2.70		5 1.00	1.01	1.01 1.01		0.02 0.01 0.01	1.13 1.07 1.05 1.06 1.00 1.01	Off Off	
60.0	27.00	124	4.7 4.3	-0.8 2.9	309 310	4	2.88 3.60 6.93		5 1.01 7 1.01	1.01	1.01	1.05	0.00 -0.01 -0.01 -0.02	0.96 0.97 0.97 0.95		
61.0	22.00 22.00	124 124		4.3	310	2	6.93 11.07		7 5 1.01	1.02 1.03			-0.01 -0.02	0.98 1.01 1.06 1.08 1.09	Off Off	
62.0	22.00	118	5.0 5.0		310 311	0 -1	11.97 10.80 4.50		5 1.02	1.03	1.01	1.07	-0.03 -0.07 -0.07 -0.07 -0.06	1.03 1.04 1.00 1.01 1.00	Off	
63.0	22.00 22.00	120 120		6.8	311	-1	6.66 12.69 14.94		7 5 1.07 7 1.15	1.03 1.04			-0.07 -0.06	1.00 1.03 1.00 0.99		
64.0	22.00	110	5.0 5.4		311 313	- 2 - 2	12.60 13.05 7.38 3.60		5 1.19	1.04	1.01	1.22	-0.07	1.01 1.01 1.08 1.08 1.05 0.99	Off	
65.0	17.00	112 110	5.0	9.2	312	-1	2.52 5.04		5 <u>1.23</u> 5 1.24	1.04 1.05	1.01 1.01	1.25 1.25	-0.06 <u>-0.04</u> -0.04 -0.04	0.97 1.02 1.07	Off	
66.0	17.00 17.00	106	4.7 5.0	11.1 11.4	312 311		6.12 11.61 13.05 13.77		5 1.25 5	1.06	1.01	1.26	-0.03 -0.04 -0.03 -0.04 -0.04	1.02 1.01 1.00 1.06 1.02	Off	
67.0	22.00	105 110		9.7	311	1	14.76 17.01		7 1.25 7 1.26	1.06 1.07	1.01 1.01	1.27 1.27	-0.03 -0.03 -0.03 -0.02	0.98 1.03 1.02 1.03	Off	
68.0	17.00 17.00	104	5.8 5.8	8.9 7.3					7 1.25 5	1.09	1.01	1.27	-0.03 -0.04 -0.03 -0.01 -0.02	0.98 1.04 1.06 0.96 1.01	Off	
69.0	17.00	100 101		10.7	310	1	14.22 17.10 18.45		7 1.26 5 1.23	1.11 1.11			-0.02 -0.01	1.01 1.03 1.01 0.99 1.02	Off Off	
70.0	22.00 17.00	101	4.3 4.0	11.4 11.3	310 310	1	16.02 16.74 16.83		5 1.22	1.12	1.01	1.23	-0.01	1.02 0.98 1.00 1.04	Off	
71.0	17.00	102 93		11.6	311	1	17.64 25.29 25.83		5 1.21 3 1.21	1.12 1.12			-0.04 -0.04	1.01 1.01 0.96 1.01 1.03	Off Off	
72.0	<u>22.00</u> 22.00	90	2.9 1.8	8.6 7.1	<u>311</u> 311	0	25.38 25.38		3 <u>1.21</u>	1.12	1.01	1.24	-0.03 -0.05 -0.04	1.02 <u>1.05</u> 1.02		
73.0	22.00	96 92	0.4			0	25.29	4	1.21 1.21	1.13 1.13			-0.05 -0.05	0.97 0.98 0.98 1.03 1.02 0.99	Off Off	

TWA Flt. 800, B747-131, Landing At JFK

TABJ	F <mark>K1, F</mark> MSL Alt	Revised:	Decemb Pitch	er 22, 1 Elevator	<u>999, Nat</u>	<u>ional Tra</u> R₀11	Insportat Rudder		ety Boar Tepr	d EPR	EPR	EPR	Long.	Vert.	¥HF	Pitch
			Angle	Position Right	Heading	Angle	Position (upper)	Attack	Engine 1	Engine 2	Engine 3	Engine 4	Accel	Accel.	* nr	Trim Stab Pos
<u>(seconds</u> 74.0	(FEET) 17.00 22.00	92	(degrees) 2 -0.7 -0.7	(degrees) 5.8 -0.2	(degrees) 312 312	(degrees) -1 -1		(dearees) 2 2	(ratio) 1.21	(ratio) 1.13	(ratio) 1.01	(ratio) 1.24	(q) -0.09 -0.10		.Off	(degrees) 7 7
75 0							19.71	1	1.17	1 12	1.01	1.10	-0.13 -0.14	1.04 1.01		7
75.0	22.00) 88 90	3 -0.7)	-4.8	312	-1	14.04 1.08 1.17	0	1.17 1.13				-0.14 -0.16	1.00	Off	/
76.0	22.00) 80	5 -1.1	-7.6	312	-1	54.36	1	1.11	1.12	1.01	1.15	-0.13 -0.14 -0.15	0.98		7
,	22.00		-1.1	-7.3			7.02	0		1.12	1.01	1.13	-0.14 -0.14	1.00 0.99		,
77.0	22.00) 82 78	-1.1	-7.6	311	0	12.96 8.73	-1 0	1.10 1.09		1.01 1.01		-0.20	1.00 1.00	Off Off	777
							4.95	1					-0.21 -0.18 -0.19			-
78.0	22.00 27.00	75	-1.1 -1.1		311 311		10.26	1	1.08	1.12	1.01	1.13	-0.20 -0.22	1.01 1.01	.Off	7
79.0	27.00) 74 74	-1.1	-12.1	312	-1			1.07		1.01		-0.23 -0.23 -0.21	1.03 1.01	Off	7
		74	-				1.71 0.18	0	1.07	1.11	1.01	1.13	-0.19 -0.20 -0.20	1.00 1.00 1.00	Off	7
80.0	22.00	68	3 -1.1	-12.6 -12.7	312 312	-1	-0.90 -2.25	-1	1.07	1.11	1.01	1.13	-0.18 -0.17	0.99 0.98	Off	7
	22.00		-1.1				-0.27	1					-0.15 -0.14 -0.12	1.03		
81.0	27.00) 70 66		-11.8	312	-1	2.16 3.69 3.78	- 1	<u>1.07</u> 1.07	1.11	1.01 1.01	1.13 1.13	-0.16 -0.19 -0.23	1.01	Off	7
				11.0	211	1				1 00	1 01		-0.27 -0.29	1.06	5	7
82.0	27.00 27.00		-1.1 -1.1				3.42 3.06 2.88	-2	1.04	1.09	1.01	1.11	-0.26 -0.22	1.04 1.00		1
83.0	22.00	62	-1.1	-6.9	311	-1	6.48 7.74		1.02 1.01		1.01		-0.19 -0.16 -0.19		0ff Off	7
							5.49	-2			1101		-0.20 -0.21	1.00 1.02	2	
84.0	27.00 27.00		-1.1		311 311	-1 -1		- 2	1.01	1.04	1.01	1.09	-0.23	1.00 1.03	Off	7
85.0	27.00) 54	-1.1	-3.9	311	-1	0.36		1.00	1.03	1.01	1.09	-0.25 -0.26 -0.27	1.00 0.99 1.02		7
		52				_	-0.72 -0.45	-1 -2	1.01	1.03				1.03	Off	7 7
86.0	27.00) 49		-4.6		-1	0.18	- 5	1.01	1.02	1.01	1.09	-0.32 -0.33	1.04 1.01	Off	7
	27.00)	-1.1		311	-1	0.63	- 6 - 6					-0.29 -0.27 -0.27	1.02	2	+
87.0	27.00) 46 44		-4.6 -4.5		-1	1.17	-8	1.01				-0.27 -0.26	1.02 1.00	Off Off	7
							1.26	-8					-0.25 -0.26	1.03 1.00		
88.0	27.00 27.00) 43	-1.1	-4.3	311 311	-1	1.08 1.08 1.35	-8 -6 -5		1.02	1.01	1.05	-0.26 -0.26 -0.25	1.01		7
					211	1				1 01	1 01	1.05	-0.25 -0.24	1.00		-
89.0	22.00) 43 43	-1.1	-4.3 -3.6	311	-1	1.62 2.07 2.25	- 5	1.01 1.00	1.01 1.01	1.01 1.01	1.05 1.04	-0.23 -0.22	1.00 1.02		7 7
90.0	22.00 22.00	43	3 -1.1 -1.1		310 310		2.43 2.52	- 6 - 7	1.00	1.01	1.01	1.04	-0.21 -0.21 -0.20	1.00	Off	7
							2.70						-0.18 -0.18	1.00 1.00		
91.0	22.00) 43 43	-1.1	- 2.3 - 2.0	309	-1 -1	2.43	-11					-0.16	1.01 1.00	Off Off	7
92.0	27.00) 43	-1.1	-1.8	309	-1	2.25	-11	1.01	1.01	1.01	1.03	-0.16 -0.17 -0.17	1.00 1.01 1.01		7
5210	27.00)			308		1.80 2.07	-14		1.01	1101	1.00	-0.17 -0.17	1.01 1.01		
93.0	27.00	42	2 -1.1				2.70	-14	1.01		1.01	1.03	-0.17 -0.16 -0.14	1.01 1.01	Off	7
		42	2 -0.7			-1	<u>3.60</u> 3.96	-17 -18	1.01		1.01	1.03	-0.12 -0.10 -0.06	1.00 1.00	Off	7
94.0	32.00 37.00		2 -1.1	-1.3	304	-1	4.50	- 20		1.01	1.01	1.03	-0.05 -0.04	1.01 1.02	Off	7
							4.50						-0.03 -0.02 -0.02	1.01 1.01		
95.0	37.00	42	2 <u>-1.1</u> 21.1	-1.2 -0.9	302 302		4.50 4.41 4.41	- 27		1.01 1.01	1.01 1.01		-0.02 -0.01 -0.02	1.01 1.01	Off	7
96.0			2 -1.1	-0.9	297	-1	4.50	- 28	1.01	1.01	1.01	1.03	-0.02 -0.03	1.01 1.02	Off	7
	27.00						4.32 4.32						-0.04 -0.05 -0.05	1.00		
	L	ا سع مد	<u> </u>	777			L		I	I)~————————————————————————————————————	-0.04	1.01		

ł

â

 n_{\pm}

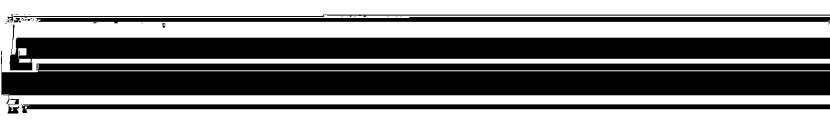
r **n** fi

üВ

Time	MSL Alt		Angle	Elevator Position Right	Mag. Heading	Roll Angle	Rudder Position (upper)		EPR Engine 1	EPR Engine	EPR Engine 3	EPR Engine 4	Long. Accel	Vert. Accel.	¥ΗF	Pitch Trim Stab Pos	
(second:	(FEET)	(KNOTS)			(dearees)	(dearees)	(degrees)	(degrees)	(ratio)	(ratio)	(ratio)	(ratio)	(q)	(q)		(dearees)	
99.0	22.00	42	-1.1 -1.1	-0.7 -0.9		- 1 - 1	1.89 1.71 1.53	-14	1.01 1.01				-0.02 -0.02	1.01 1.01	.Off	7 7	
100.0	22.00 22.00	42 42	-0.7	-0.9	275	-1	1.17 0.90 0.36	-13	1.00	1.01	1.01	1.03 1.03	-0.02 -0.02	1.00 1.01	2 Off) Off	7	
101.0	22.00	42	-0.7 -0.7	-0.7 -0.4		0 - 1	0.00 -0.90 -1.44	-8	1.00 1.00			1.03	-0.02 -0.02 -0.02 -0.02 -0.02 -0.02	1.02 1.01 1.03 1.03 1.01	Off	7	
102.0	22.00 22.00	42 42	-0.7	-0.7	264	- 1	-2.16 -2.52	- 7	1.01	1.01	1.01 1.01	1.03 1.03	-0.02 -0.02 -0.02	0.99 1.00 1.01) 0	7	
103.0	22.00	42	-0.7 -0.7	-0.7 -0.5	261 258	- 1 - 1	-2.97 -2.88 -2.88 -3.06	- 5	1.01 1.01		1.01	1.03	-0.01 -0.02 -0.02 -0.02 -0.02 -0.02 -0.02 -0.02	1.00 1.01 1.02 1.01 1.01 1.02 1.00	Off	7 7	
104.0	27.00 27.00	42 42		-0.9	255	0	-2.70 -2.43		1.01	1.01 1.01		1.03 1.03		0.99 1.02 1.01	0	7	
105.0	27.00	42	-0.7 -0.7	-0.5 -0.6		0 0	-1.98 -1.71 -1.35 -1.35	- 5	1.01	1.01	1.01	1.03	-0.01	1.01 1.01 1.00 1.00	0ff)	777	

ana i ta

z



. fî	['	
	- U - 1	

TWA Flt. 800

B747- 131, Landing at JFK TABJFK2, Revised: December 22, 1999

National Transportation Safety Board

Reverser Eng 4 (1 T/D)	L-L/N/ Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow							
Reverser R Eng 3 E	Stow Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	
Reverser Eng 2	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	
Reverser Eng 1 /1 T/D)	CT / L - L / N / Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	
Leading Edge Rt. Set 4 (discrete)	Kurscreuz) Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext							
Leading Edge Rt. Set 3 (discrate)	×t	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext							
Leading Edge Rt. B Set 2 (discrete)	×t	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext							
Leading L Edge Rt. E Set 1 S	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	•
Leading Edge Lt. Set 4 (discrete)	sure ue) Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	•						
ng Lt.	turscrete Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext							
Leading Leading Leadi Edge Lt. Edge Lt. Edge Set 1 Set 2 Set 3	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	
Leading Edge Lt. Set 1 (discrete)	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	E×t	Ext	Ext	Ext	Ext	E×t	Ext	Ext	Ext	Ext	Ext	Ext	Ext	E×t	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	
Flap pos Frailing OUTBD	24.	244	575		24		500	24 24	24		544	244 244	24 24	224		222	24	225	525		24		54 t	244	24		544	24 24	24		575 777	24 24	24 24		24 24	24 24	24 24		54. 54.	
Flap pos F Trailing 1 Inbd (degrees)	6 25.4												25.5	4 25.5		1 25.5 25.5	0 25.5																	2 25.5 25.3	4 25.4	25.5	1 25.5 25.5			
Aileron Position R inbd (degrees)	0.	0.0	1.0	0.6	3.9	-2.0	0.0	1.0	-3.0	-2.6	+ -2.0	1.6	-2.0	-2.	-3.0	-2.4	-2.	3.2	1.2	-2.0	-2.0	-2.0	-2.0	-1.6	-1.0	0.0	-2.6	-3.0	-4.1	-2.4	4.9	4.3	4.9	З.	-1.	4.9	-2.4	-2.0	-0.4	
or Rudder Aile on Position Posi (lower) Rin	9												1 0.0				1								7 0.0				2				20.0			8	4			
Elevator Position Left	0 1.6	0 1.2	0.8	0.8	0.0	0 1.1	0 3.2	0 3.1	0 3.2	0 1.9	0 1.4	0 2.0	0 3.1	0 3.5	0 3.6	0 3.4	0 3.1	0 2.8	0 2.7	0 2.3	0 1.5	0 1.7	0 2.1	0 1.8	0 1.	0 2.5	0 3.0	0 2.5	0 3.2	0 3.4	0 3.4	0 2.7	1.1	0 1.2	0 1.2	0 2.8	0 2.4	0 2.7	0 3.1	
ALTC	540.	7 540.0	3 540.0	0 540.0	7 540.0	4 540.0	0 540.0	7 540.0	4 540.0	0 540.0	7 540.0	4 540.0	1 540.0	7 540.0	4 405.0	1 405.0	8 405.0	4 405.0	1 405.0	8 405.0	4 405.0	1 405.0	8 405.0	5 405.0	1 405.0	8 405.0	5 270.0	1 270.0	8 270.0	5 270.0	2 270.0	8 270.0	5 270.0	2 270.0	8 270.0	5 270.0	2 270.0	9 270.0	5 270.0	
FDR lapse Time	3	0.7	1.3	2.0	2.	3.4	4.0	4.7	5.4	6.0	6.7	7.4	 	8.7	9.4	10.1	10.8	11.4	12.1	12.8	13.4	14.1	14.8	15.9	16.1	16.8	17.5	18.1	18.8	19.5	20.2	20.8	21.5	22.2	22.8	23.5	24.2	24.9	25.5	

10. 25.4 24.1 7.5 25.5 24.1 7.5 25.5 24.1 86.0 25.5 24.1 7.5 25.5 24.1 7.6 25.5 24.1 7.7 25.5 24.1 7.8 25.5 24.1 7.10 25.5 24.1 7.5 25.5 24.1 7.7 25.5 24.1 7.7 25.5 24.1 7.7 25.5 24.1 7.7 25.5 24.1 7.7 25.5 24.1 7.7 25.5 24.1 7.7 25.5 24.1 7.3 25.5 24.1 7.3 25.5 24.1 7.3 25.5 24.1 7.3 25.5 24.1 7.3 25.5 24.1 7.3 25.5 24.1 7.3 25.5 24.1 7.4 </th <th>-0.0 25.5 24 -10.1 25.5 25.5 -5.3 -2.5 25.5 -5.3 -2.5 25.5 -1.6 25.5 25.5 -2.6 25.5 24 -3.0 25.5 24 -1.6 25.5 24 -3.0 25.5 24 -3.1 25.5 24 -3.1 25.5 24 -3.1 25.5 24 -3.1 25.5 24 -4.3 25.5 24 -5.1 25.5 24 -5.1 25.5 24 -5.1 25.5 24 -1.6 255.5 24 -1.6 255.5 24 -2.1 255.5 24 -1.6 255.5 24 -2.1 255.5 24 -2.1 255.5 24 -2.4 255.5 254 -2.4</th> <th>(degrees) (degrees) (degrees) (degrees) 7.5 25.5 25.5 24 86.0 0.0 25.5 24 -2.6 25.5 25.5 24 -10.1 25.5 25.5 24 -2.6 25.5 24 24 -10.1 25.5 24 24 -10.1 25.5 24 24 -2.6 25.5 24 24 -3.0 25.5 24 24 -1.6 25.5 24 24 -3.0 25.5 24 24 -5.7 25.5 24 24 -5.1 25.5 24 24 -1.6 25.5 24 24 -1.1 25.5 24 24 -1.1 25.5 24 24 -1.1 25.5 24 24 -1.6 25.5 24 24 -3.1 25.5</th>	-0.0 25.5 24 -10.1 25.5 25.5 -5.3 -2.5 25.5 -5.3 -2.5 25.5 -1.6 25.5 25.5 -2.6 25.5 24 -3.0 25.5 24 -1.6 25.5 24 -3.0 25.5 24 -3.1 25.5 24 -3.1 25.5 24 -3.1 25.5 24 -3.1 25.5 24 -4.3 25.5 24 -5.1 25.5 24 -5.1 25.5 24 -5.1 25.5 24 -1.6 255.5 24 -1.6 255.5 24 -2.1 255.5 24 -1.6 255.5 24 -2.1 255.5 24 -2.1 255.5 24 -2.4 255.5 254 -2.4	(degrees) (degrees) (degrees) (degrees) 7.5 25.5 25.5 24 86.0 0.0 25.5 24 -2.6 25.5 25.5 24 -10.1 25.5 25.5 24 -2.6 25.5 24 24 -10.1 25.5 24 24 -10.1 25.5 24 24 -2.6 25.5 24 24 -3.0 25.5 24 24 -1.6 25.5 24 24 -3.0 25.5 24 24 -5.7 25.5 24 24 -5.1 25.5 24 24 -1.6 25.5 24 24 -1.1 25.5 24 24 -1.1 25.5 24 24 -1.1 25.5 24 24 -1.6 25.5 24 24 -3.1 25.5
86.0 10.1 -2.6 -5.3 -5.3 -5.3 -5.3 -5.3 -5.3 -2.6 -3.0 -2.2 -3.0 -2.2 -3.0 -2.2 -3.0 -2.2 -3.0 -2.2 -3.0 -2.2 -3.0 -2.2 -3.0 -2.2 -3.0 -2.2 -3.0 -2.2 -3.0 -2.2 -3.0 -2.2 -3.0 -2.2		0.4 86.0 0.3 -2.6 0.3 -2.6 0.3 -2.6 0.4 -1.0 0.3 -2.6 0.3 -2.6 0.4 -1.0 1.3 -2.6 0.4 -3.0 0.4 -3.0 0.4 -3.0 0.4 -3.0 0.3 -5.7 0.4 -3.0 0.4 -4.3 0.5 -4.3 0.6 -4.3 0.1 -5.7 0.2 -4.3 0.3 -4.3 0.4 -4.3 0.5 -4.3 0.1 -5.4 0.1 -5.4 0.2 -4.3 0.3 -2.4 0.3 -2.4 0.3 -2.4 0.3 -2.4 0.3 -1.6 0.4 -3.0 0.5 -1.6 0.6 -2.0 0.7 -3.0 0.7 -2.4 0.7 -2.4 0.7 -3.0 0.7 -3.0 0.7 -3.0 0.8 -1.6
		0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5
	00000000000000000000000000000000000000	A de la construction de la const

Reverser Eng 4 (1.T/R)	Stow	Stow	Stow	Stow	Stow	Stow	Dep	Trns	Trns	Trns	Trns	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	
Reverser Eng 3 (1-T/R)	Stow	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns							
Reverser Eng 2 (1-T/R)	Stow	Trns	Trns	Trns	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep								
Reverser Eng 1 (1-T/R)	Stow	Trns	Trns	Trns	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep								
Leading Edge Rt. Set 4 (discrete)	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext								
Leading Edge Rt. Set 3 (discrete)	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext								
Leading Edge Rt. Set 2 (discrete)	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext								
Leading Edge Rt. Set 1 (discrete)	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	•							
Leading Edge Lt. B Set 4 3 (discrete) 1	×t	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	•						
ng Lt. srete)	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext								
Leading Leadi Edge Lt. Edge Set 2 Set 3 e) (discrete) (disc	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext								
eading dge Lt. et 1 discret		Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext							
Flap pos Flap pos Le Trailing Trailing Ec Inbd OUTBD Se (denrees) (denrees) (d	-50							24.2 24.2																			24.	24. 24.	24	24	1000		24 24		24.	24	24. 24.	24.4 24.4	24.	
Flap pos Trailing Inbd (degrees)	5							25.5								25.4									25.5 25.5													25.5	25.	
Aileron Position R inbd (degrees)	~	19.1	16.2	7.5	0.0	-2.0	-2.0	-4.7	-2.0	18.7	12.0	-3.0	-1.0	17.6	24.3	20.1	5.9	-3.0	-3.0	-2.0	-2.0	-16.0	-14.0	-9.3	-9.3	-31.0	-31.8	-39.1	-52.5	-55.0	-55.4	-49.7	-25.6	-44.6	-51.3	-46.0	ľ		-3.4	
	7 -0.1			1 0.4				0.0					2 12.0 10.8							2 13.0	~				3 16.4 16.7			8 26.0 25.9								4 0.0		1 3.4		
ALTC Elevator Rudder Position Position Left (lower) (ferres) (derres)	-	0 -3.1	0 -6.9	0 -4.1	0 -4.0	0 -4.6	0 -4.5	0 -4.6		0 2.1	0 -2.4	0 -4.0	0 -1.2	0 -4.0	0 -6.3		0 -2.4	0 -9.2	0 -10.7	0 -11.2	0		0 -7.1	0 -10.7	0 -11.3	0 -11.2	0 -11.9	0 -7.8		0 -7.8	0 -4.6	0 1.4	0 5.8	0 8.6	0 8.3	0 8.3	0 8.3	0 9.1	0 13.1	
	8 0.0	4 0.0	1 0.0	0.0	4 0.0	1 0.0	0.0	5 0.0	1 0.0	8	5 0.0	1 0.0	0.0	5 0.0	2 0.0	0.0	5 0.0	2 0.0	8 0.0	5 0.0	2 0.0	0.0	5 0.0	2 0.0	0.0	5 0.0	2 0.0	0.0	6 0.0	2 0.0	0.0	6 0.0	2 0.0	0.0	6 0.0	3 0.0	0.0	6 0.0	3 0.0	
FDR lapse AL Time (seconds) (F	53.	54.4	55.1	55.8	56.4	57.1	57.8	58.5	59.1	59.8	60.5	61.1	61.8	62.5	63.2	63.8	64.5	65.2	65.8	66.5	67.2	67.9	68.5	69.2	6.9	70.5	71.2	71.9	72.6	73.2	73.9	74.6	75.2	75.9	76.6	77.3	77.9	78.6	79.3	

er Reverser Eng 4	Trns (1-1/	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns	Trns		Stow Trns	Stow Trns	Stow Trns	Stow Trns	Stow Trns	Stow Trns	Stow Stow	Stow	Stow Stow	Stow Stow	Stow Stow	Stow Stow	Stow Stow	Stow Stow	Stow Stow	Stow Stow							
Reverser Eng 3 (1 T (D)	Dep (1-1/R	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	su						Mo		мо	MC			мо		Mo	MC		MC	MC		мо	MO	MC
Reverser Eng 2 (1 T (D)	(V/I-T)																Trns	Trns	Trns	Trns	Trns	Trns	Stow	Stow	Stow	Stow	Stow	Stow	Stov	Stow	Stow								
Reverser Eng 1 (1 T (D)	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Dep	Trns	Trns	Trns	Trns	Trns	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow	Stow
Leading Edge Rt. Set 4	u su etel Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext
Leading L Edge Rt. E Set 3 S	×t	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext
Leading Edge Rt. Set 2	×t	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext
Leading Edge Rt. Set 1	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext
Leading Edge Lt. Set 4	Ext Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext
ng Lt.	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext
Edge Lt. Set 2 Set 2	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext
Leading Leading Leadi Edge Lt. Edge Lt. Edge Set 1 Set 2 Set 3	EXT	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext	Ext
lap pos railing UTBD	1 ucyl ccs/ 24.	24.5 24.5	25.5 25.5	24.	24.	. 54.	24.	24. 24.	24.	24.	24.		24.	24.	24.		24.	24.	24.	24. 24.	24.	24.	24.		24.		24.	24.	24.	24.	24. 24.		24. 24.		24. 24.	24. 24.	24. 24.		24.
Flap pos Trailing Inbd	25.5 25.5	25.5 25.5	25.6		25.5	25.6																			25.7								25.8				25.8 25.8		
ц ц (1 4 4 4 4 4 4 4 7 1 4 4 7 1 4 4 4 4 4 4	-10.3	-10.1	-20.5	-17.8	-5.1	-2.6	-2.6	-3.0	-3.0	-3.0	-3.0	-3.0	-2.6	-3.0	-3.0	-2.6	-2.6	-3.0	-2.6	-3.0	-2.6	-2.6	-3.0	-2.6	-2.6	-2.6	-2.6	-2.6	-3.0	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-3.0
Elevator Rudder Ailero Position Position Positi Left (lower) R inbd	E-0-	2000	2.7	10.0	7.5		70 r		-0.1				0.7	1.4			1.9				3.0	44			4.0				2.5		1.2		-0.2	-2.5		1.0 	-2.5	1010	-2.2
Elevator Position Left	14.6	13.1	12.7	11.1	7.6	4.6	4.4	5.0	5.5	5.6	5.8	5.7	5.4	4.1	3.6	3.2	2.9	2.8	2.8	2.6	2.4	2.1	1.8	1.8	1.7	1.8	1.8	1.5	1.7	1.8	1.7	1.6	1.5	1.7	1.7	1.7	1.5	1.4	1.7
10	(TEEL) 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FDR lapse AL Time	80.6	81.3	82.0	82.6	83.3	84.0	84.7	85.3	86.0	86.7	87.3	88.0	88.7	89.4	90.0	90.7	91.4	92.0	92.7	93.4	94.1	94.7	95.4	96.1	96.8	97.4	98.1	98.8	99.4	100.1	100.8	101.5	102.1	102.8	103.5	104.1	104.8	105.5	106.2

	Leading Leading Edge Lt. Edge Rt.	Edge Lt. Edg	نب م		Flap pos Trailing	soo	Flap pos Trailing	u u	Rudder Aileron Position Position	Rudder Aileron Position Position	ator Rudder Aileron tion Position Position
ExtExtExtY. T. N.Y. T. N.ExtExtExtStowStowExtExtExt <t< th=""><th>ete)</th><th>,</th><th>â</th><th></th><th>e)</th><th>0UTBD Set 1 (degrees) (discrete)</th><th>Inbd 0UTBD Set 1 (degrees) (degrees) (discrete)</th><th>R inbd Inbd OUTBD Set 1 (degrees) (degrees) (discrete)</th><th>(lower) R inbd Inbd OUTBD Set 1 (degrees) (degrees) (degrees) (discrete)</th><th>Left (lower) R inbd Inbd OUTBD Set 1 (degrees) (degrees) (degrees) (desrees) (discrete)</th><th>Left (lower) R inbd Inbd OUTBD Set 1 (degrees) (degrees) (degrees) (desrees) (discrete)</th></t<>	ete)	,	â		e)	0UTBD Set 1 (degrees) (discrete)	Inbd 0UTBD Set 1 (degrees) (degrees) (discrete)	R inbd Inbd OUTBD Set 1 (degrees) (degrees) (discrete)	(lower) R inbd Inbd OUTBD Set 1 (degrees) (degrees) (degrees) (discrete)	Left (lower) R inbd Inbd OUTBD Set 1 (degrees) (degrees) (degrees) (desrees) (discrete)	Left (lower) R inbd Inbd OUTBD Set 1 (degrees) (degrees) (degrees) (desrees) (discrete)
ExtExtExtExtStowStowExtExtExtExtStowStowExtExtExtExtStowStowExtExtExtExtStowStowExtExtExtExtStowStowExtExtExtStowStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtExtStowExtExtExtExtStowExtExtExtStowStow	4	Ext	Ext		Ext	24.7 Ext	25.8 24.7 Ext	-2.6 25.8 24.7 Ext 25.9 24.6	-2.1 -2.6 25.8 24.7 Ext -2.1 25.9 24.6	1.4 -2.1 -2.6 25.8 24.7 Ext -2.1 25.9 24.6	-2.1 -2.6 25.8 24.7 Ext -2.1 25.9 24.6
ExtExtExtExtStowStowExtExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStow	Ext	Ext	Ext		7 Ext	23.7 24.0	25.2 23.7 25.3 24.0	-2.6 25.2 23.7 25.3 24.0	-2.1 -2.6 25.2 23.7 -2.2 24.0	1.4 -2.1 -2.6 25.2 23.7 -2.2 25.3 24.0	-2.1 -2.6 25.2 23.7 -2.2 24.0
ExtExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStow	Ext	Ext	Ext		é 6	22.4	24.5 22.4	-3.0 24.3 22.4	-2.2 -3.0 24.3 22.4 -2.4 24.5 22.4	1.5 -2.2 -3.0 24.3 22.4 -2.4 -3.0 24.5 22.4	-2.2 -3.0 24.3 22.4 -2.4 24.5 22.4
ExtExtExtExtStowStowExtExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtExtStowExtExtExtExtStowExtExtExtExtStowExtExtExtStowStow	Ext E	Ext	t Ext		3 1 1	21.3	22.9 21.3 23.3 21.1	-2.6 22.9 21.3 23.3 21.1	-2.4 -2.6 22.9 21.3 -2.3 23.3 21.1	1.3 -2.4 -2.6 22.9 21.3 -2.3 -2.5 23.3 21.1	1.3 -2.4 -2.6 22.9 21.3 -2.3 -2.5 23.3 21.1
ExtExtExtExtStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtExtStowExtExtExtStowStow	Ext	Ext	Ext		7 Ext 2	19.7	21.6 19.7 22 19.2	-2.6 21.6 19.7 22 19.2	-1.9 -2.6 21.6 19.7 -1.7 22 19.2	1.5 -1.9 -2.6 21.6 19.7 -1.7 -2.6 21.6 19.2	1.5 -1.9 -2.6 21.6 19.7 -1.7 -2.6 21.6 19.2
Ext Ext Ext Ext Stow Stow Ext Ext Stow Stow Stow Ext Ext Ext Stow Stow Ext Ext Ext Stow Stow Ext Ext Ext Stow Stow	Ext	Ext	Ext		1 7 Ext	18.1	20.2 18.1 20.6 17.7	-3.0 20.2 18.1 20.6 17.7	-1.3 -3.0 20.2 $18.1-1.3$ -3.0 20.6 17.7	1.4 -1.3 -3.0 20.2 18.1 -1.3 20.6 17.7	1.4 -1.3 -3.0 20.2 18.1 -1.3 20.6 17.7
ExtExtExtExtStowStowExtExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStowExtExtExtStowStow	Ext	Ext	Ext		5 Ext	16.5 16.2	18.6 16.5 18.8 16.2	-2.6 18.6 16.5 18.8 16.2	-1.3 -2.6 18.6 16.5 -1.4 18.8 16.2	1.4 -1.3 -2.6 18.6 16.5 -1.4 18.8 16.2	-1.3 -2.6 18.6 16.5 -1.4 18.8 16.2
ExtExtExtStowExtExtExtStowExtExtExtStowExtExtExtStowExtExtExtStowExtExtExtStowExtExtExtStow	Ext	Ext	Ext	,t	1 7	15.1 14.7	17.2 15.1 17.5 14.7	-2.6 17.2 15.1 17.5 14.7	-1.3 -2.6 17.2 $15.1-1.4$ 17.5 14.7	1.4 -1.3 -2.6 17.2 $15.1-1.4$ 17.5 14.7	1.4 -1.3 -2.6 17.2 $15.1-1.4$ 17.5 14.7
ExtExtExtExtStowExtExtExtStowStowExtExtExtExtStowExtExtExtExtStow	Ext	Ext	c Ext	4	7 Ext 6	13.7	15.8 13.7 16.2 13.6	-2.6 15.8 13.7 16.2 13.6	-1.3 -2.6 15.8 13.7	1.5 -1.3 -2.6 15.8 13.7	1.5 -1.3 -2.6 15.8 13.7
Ext Ext Ext Ext Stow Stow Ext Ext Ext Stow Stow Ext Ext Ext Stow Stow Ext Ext Ext Stow Stow	Ext	Ext	Ext	Ext		12.5	14.5 12.5 14.9 12.4	-2.6 14.5 12.5 14.9 12.4	-1.5 -2.6 14.5 12.5 -1.9 14.9 12.4	1.4 -1.5 -2.6 14.5 12.5 -1.9 14.9 12.4	1.4 -1.5 -2.6 14.5 12.5 -1.9 14.9 12.4
Ext Ext Ext Stow Stow Ext Ext Ext Stow Stow Ext Ext Ext Stow Stow	Ext E	Ext	Ext	1.3	2 Ext	11.2	13.2 11.2 13.7 11.1	-2.6 13.2 11.2 13.7 11.1	-2.2 -2.6 13.2 11.2 -2.3 13.7 11.1	1.4 -2.2 -2.6 13.2 11.2 -2.3 13.7 11.1	1.4 -2.2 -2.6 13.2 11.2 -2.3 13.7 11.1
Ext Ext Ext Stow Stow Ext Ext Fx+ Stow c+oul	Ext	Ext	Ext		I Ext	10.1	12.1 10.1 12.4 10.2	-3.0 12.1 10.1 10.2 12.4 10.2	-2.4 -3.0 12.1 10.1 -2.4 12.4 10.2	1.4 -2.4 -3.0 12.1 10.1 -2.4 10.2	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Exti Exti Fri stoul stoud	Ext E	Ext	Ext		Z Ext	2.6	11 9.2 11.2 9.3	-2.6 11 9.2 11.2 9.3	-2.2 -2.6 11 9.2 -1.9 11.2 9.3	1.4 -2.2 -2.6 11 9.2 -1.9 11.2 9.3	1.4 -2.2 -2.6 11 9.2 -1.9 11.2 9.3
	Ext	Ext	Ext		3 Ext	 	10.2 8.3 10.3 8.3	-2.6 IO.2 8.3 10.3 8.3	-1.5 -2.6 10.2 8.3 -1.3 8.3 8.3	1.4 -1.5 -2.6 10.2 8.3 -1.3 -2.6 10.3 8.3	-1.5 -2.6 10.2 8.3 -1.3 8.3 8.3