

DOCKET NO.: SA-519
EXHIBIT NO. 10C

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

TABULAR PRINTOUT OF SSFDR DATA

(40 pages)

Attachment II

Tabular Printout of SSFDR Data

American Airlines Flt 1420, Little Rock, AR, 6/1/99, DCA99MA060
 Plot 1, Created: January 12, 2000, Vehicle Recorders Division - NTSB

CVR Local Time	AIRSPEED	PRESSURE ALT (Fine) (FEET)	HEADING	RADIO ALT. COARSE-rev (FEET)	VERTICAL ACCEL (G'S)	LONG. ACCEL (G'S)	LATERAL ACCEL (G'S)	LDG GEAR RH MAIN
11:49:50	152	645	40.931	350.4	0.8050 0.9012 0.8898 0.9287 0.9424 0.9974 1.1004 1.1118	-0.0315 -0.0396 -0.0294 -0.0111	0.0418 0.0743 0.0438 0.0560	DWN LCK
11:49:51	155	631	40.416	339.4	1.1851 1.2149 1.2240 1.1737 1.1943 1.2194 1.1828 1.2469	-0.0071 -0.0152 -0.0091 -0.0010	0.0194 0.0275 0.0214 -0.0172	
11:49:52	158	607	39.362	337.5	1.1370 1.1691 1.1073 1.0363 1.0271 0.9264 0.9310 0.8852	-0.0193 -0.0355 -0.0376 -0.0274	0.0133 -0.0071 0.0296 0.0214	DWN LCK
11:49:53	156	586	39.629	326.6	0.8943 0.9287 0.9218 0.9928 0.9699 0.9355 0.9905 0.9745	-0.0355 -0.0335 -0.0355 -0.0355	0.0377 0.0682 0.0764 0.0743	
11:49:54	157	577	39.894	315.2	1.0363 1.0203 1.0317 1.0775 1.0523 1.0638 0.9882 1.0111	-0.0294 -0.0315 -0.0376 -0.0335	0.0113 0.0235 -0.0030 0.0051	DWN LCK
11:49:55	156	558	39.629	285.5	0.9310 0.9562 0.9218 0.8531 0.8852 0.8417 0.8600 0.9584	-0.0355 -0.0417 -0.0478 -0.0396	-0.0152 0.0031 -0.0111 0.0316	

CVR Local Time	AIRSPEED (knots)	PRESSURE ALT (Fine) (FEET)	HEADING	RADIO ALT. COARSE-rev (FEET)	VERTICAL ACCEL (G'S)	LONG. ACCEL (G'S)	LATERAL ACCEL (G'S)	LDG GEAR RH MAIN
11:49:56	151	546	39.629	287.5	0.9653	-0.0376	0.0479	DWN LCK
					1.0386	-0.0355	0.0479	
					1.0134	-0.0376	0.0784	
					1.0203	-0.0376	0.0703	
					1.1370			
					1.1187			
					1.1920			
					1.1324			
11:49:57	156	527	40.156	255.4	0.9768	-0.0478	0.1333	
					0.9813	-0.0335	0.0987	
					0.8531	-0.0417	0.0886	
					0.8692	-0.0457	0.0642	
					0.9241			
					0.8714			
					0.9287			
					0.8737			
11:49:58	158	526	39.894	232.8	0.9195	-0.0437	0.0438	DWN LCK
					0.9607	-0.0437	0.0296	
					0.9562	-0.0335	-0.0132	
					0.9951	-0.0294	0.0194	
					0.9791			
					1.0248			
					1.0248			
					1.0798			
11:49:59	155	497	37.999	245.3	1.1096	-0.0417	0.0051	
					1.0432	-0.0355	0.0682	
					1.1531	-0.0233	0.0092	
					1.1027	0.0092	0.0194	
					1.0867			
					1.1050			
					1.1233			
					1.1897			
11:50:00	154	474	36.870	221.5	1.2194	0.0296	-0.0132	DWN LCK
					1.2423	0.0153	0.0031	
					1.2744	0.0072	-0.0111	
					1.2469	0.0072	-0.0233	
					1.2080			
					1.1210			
					1.0500			
					0.9997			
11:50:01	153	476	36.582	220.3	0.9745	0.0092	-0.0254	
					0.9195	-0.0030	-0.0335	
					0.9378	-0.0010	0.0235	
					0.9081	0.0072	0.0194	
					0.8714			
					0.8829			
					0.8966			
					0.8966			
11:50:02	152	457	37.999	190.2	0.9195	0.0133	0.0499	DWN LCK
					0.9584	0.0296	0.0947	
					0.9882	0.0458	0.0723	
					1.1141	0.0397	0.0621	
					1.1416			
					1.1782			
					1.1256			
					1.0546			

CVR Local Time	AIR SPEED (knots)	PRESSURE ALT (Fine) (FEET)	HEADING	RADIO ALT. COARSE-rev (FEET)	VERTICAL ACCEL (G'S)	LONG. ACCEL (G'S)	LATERAL ACCEL (G'S)	LDG GEAR RH MAIN
11:50:03	151	441	38.550	198.8	1.0111 0.9218 0.8211 0.7799 0.7959 0.9012 0.8875 0.9722	0.0194 0.0153 0.0194 0.0336	0.0133 -0.0030 0.0438 0.0418	
11:50:04	153	435	38.276	178.5	0.9974 0.9951 1.0821 1.1118 1.0363 1.0226 1.0111 0.9882	0.0316 0.0336 0.0214 0.0235	0.0601 0.0479 0.0214 0.0397	DWN LCK
11:50:05	154	426	37.720	181.6	1.0386 0.9539 0.9882 0.9813 0.9539 0.9195 0.9791 0.9928	0.0092 0.0113 0.0296 0.0051	0.0336 0.0235 0.0397 0.0051	
11:50:06	155	413	37.439	185.9	0.9676 0.9997 0.9928 0.9562 0.8005 0.8142 0.7982 0.8142	-0.0071 -0.0213 -0.0355 -0.0233	0.0051 0.0031 0.0519 -0.0152	DWN LCK
11:50:07	156	398	37.720	166.0	0.8737 0.9241 0.9997 1.0363 1.1096 1.0615 1.0821 1.0821	-0.0274 -0.0254 -0.0274 -0.0152	0.0133 0.0479 0.0682 0.0886	
11:50:08	155	386	38.550	138.6	1.0523 1.0523 1.0180 1.1027 1.0363 0.9882 0.9974 0.9081	-0.0193 -0.0152 -0.0152 -0.0152	0.0336 0.0519 0.0214 0.0540	DWN LCK
11:50:09	155	377	39.094	124.9	0.9493 0.9195 0.9310 1.0226 0.9997 1.0729 1.1622 1.0638	-0.0071 0.0011 -0.0091 -0.0233	0.0764 0.0723 0.0723 0.0153	

CVR Local Time	AIRSPEED	PRESSURE ALT (Fine) (FEET)	HEADING	RADIO ALT. COARSE-rev (FEET)	VERTICAL ACCEL (G'S)	LONG. ACCEL (G'S)	LATERAL ACCEL (G'S)	LDG GEAR RH MAIN
11:50:10	154	365	39.362	105.8	1.0157	-0.0132	0.0438	DWN LCK
					1.0157	-0.0010	0.0275	
					0.9470	-0.0111	0.0316	
					0.9493	-0.0111	0.0458	
					0.9722			
					0.9401			
					0.9127			
					0.8829			
11:50:11	154	350	39.894	87.1	0.8371	-0.0132	0.0214	
					0.7524	-0.0254	0.0784	
					0.7959	-0.0213	0.0560	
					0.7478	-0.0132	0.0479	
					0.8600			
					0.8692			
					0.9081			
					0.9493			
11:50:12	156	332	40.675	68.7	0.9997	-0.0091	0.0499	DWN LCK
					1.0500	-0.0091	0.0601	
					1.1439	0.0031	0.0235	
					1.2240	-0.0050	0.0174	
					1.1118			
					1.2080			
					1.1828			
					1.1897			
11:50:13	157	304	41.438	53.8	1.2011	-0.0172	0.0499	
					1.1279	-0.0254	0.0784	
					1.1141	-0.0294	0.0458	
					1.1187	-0.0294	0.0499	
					1.1302			
					0.9974			
					0.9218			
					0.9058			
11:50:14	159	297	42.429	37.8	0.8463	-0.0396	0.0682	DWN LCK
					0.8211	-0.0437	0.1293	
					0.8966	-0.0396	0.1028	
					0.8760	-0.0417	0.0825	
					0.8875			
					0.9653			
					1.0317			
					1.0661			
11:50:15	160	291	43.390	25.7	1.0180	-0.0335	0.0764	
					1.1370	-0.0274	0.0479	
					1.2652	-0.0355	0.0560	
					1.2858	-0.0437	0.0499	
					1.2149			
					1.0775			
					1.2446			
					1.2607			
11:50:16	160	256	43.625	15.6	1.2309	-0.0640	0.0336	DWN LCK
					1.1691	-0.0579	0.0947	
					1.0798	-0.0620	0.0581	
					1.0226	-0.0722	0.0804	
					1.0386			
					1.0661			
					1.1233			
					1.2584			

CVR Local Time	AIRSPEED (knots)	PRESSURE ALT (Fine) (FEET)	HEADING	RADIO ALT. COARSE-rev (FEET)	VERTICAL ACCEL (G'S)	LONG. ACCEL (G'S)	LATERAL ACCEL (G'S)	LDG GEAR RH MAIN
11:50:17	157	228	43.859	10.9	1.3133	-0.0946	0.1272	
					1.1073	-0.0885	0.1517	
					0.9653	-0.0885	0.1578	
					1.0019	-0.0762	0.1354	
					0.9447			
					0.9859			
					0.9333			
					0.9813			
11:50:18	163	232	43.625	6.2	1.0661	-0.0640	0.0235	DWN LCK
					0.9974	-0.0844	-0.0233	
					1.0683	-0.0864	-0.0193	
					0.9722	-0.0925	0.0031	
					1.0661			
					1.0340			
					1.0935			
					1.1553			
11:50:19	157	210	40.931	1.9	1.0844	-0.0783	-0.0498	
					0.9333	-0.0640	-0.0478	
					0.9401	-0.0579	-0.0518	
					0.7615	-0.0559	0.0113	
					0.8211			
					0.8073			
					0.8165			
					0.8623			
11:50:20	140	171	40.416	-0.5	1.2286	-0.1698	-0.0071	DWN LCK
					1.5514	-0.1027	0.0499	
					1.7002	-0.0946	0.0540	
					1.5583	-0.0844	-0.0233	
					1.2790			
					1.0546			
					0.9791			
					0.8989			
11:50:21	145	167	40.675	-0.9	0.7295	-0.0885	-0.0213	
					0.7684	-0.1047	-0.0193	
					0.8096	-0.1108	-0.0315	
					0.9447	-0.1149	-0.0640	
					0.9928			
					1.1645			
					1.1370			
					1.1943			
11:50:22	149	170	40.156	-0.1	1.1233	-0.1108	-0.0071	DWN LCK
					1.0134	-0.1169	0.0031	
					0.9653	-0.1271	-0.0213	
					0.9195	-0.1373	-0.0417	
					0.8920			
					0.8600			
					0.8394			
					0.8760			
11:50:23	149	152	39.094	-1.2	0.9951	-0.1698	-0.0478	
					0.9562	-0.1963	-0.0478	
					0.9012	-0.1943	-0.0600	
					0.9928	-0.1963	-0.0376	
					1.0340			
					1.0729			
					1.0867			
					1.0569			

CVR Local Time	AIRSPEED (knots)	PRESSURE ALT (Fine) (FEET)	HEADING	RADIO ALT. COARSE-rev (FEET)	VERTICAL ACCEL (G'S)	LONG. ACCEL (G'S)	LATERAL ACCEL (G'S)	LDG GEAR RH MAIN
11:50:24	146	165	37.439	-1.2	1.1714	-0.2187	-0.0539	DWN LCK
					1.0775	-0.2187	-0.0376	
					1.0821	-0.2085	0.0194	
					0.9172	-0.2146	-0.0762	
					0.8737			
					0.8417			
					0.8440			
					0.8989			
11:50:25	143	163	36.001	-0.5	1.0180	-0.2472	-0.0010	
					1.0981	-0.2472	-0.0620	
					1.0775	-0.2512	-0.0355	
					0.9997	-0.2716	-0.0885	
					0.9745			
					0.9905			
					0.9745			
					1.0432			
11:50:26	140	167	34.203	-2.8	1.0500	-0.2777	-0.0823	DWN LCK
					1.0157	-0.2757	-0.0946	
					0.9630	-0.2431	-0.1312	
					0.9722	-0.1556	-0.0885	
					0.9951			
					0.9676			
					0.9791			
					0.9287			
11:50:27	137	178	31.030	-1.2	0.9333	-0.0600	-0.0885	
					1.0294	-0.0539	-0.1475	
					0.9768	-0.0559	-0.1332	
					1.0775	-0.0742	-0.1251	
					1.0180			
					1.0500			
					1.0180			
					1.0546			
11:50:28	134	200	29.017	-1.2	1.0042	-0.0925	-0.1312	DWN LCK
					0.9997	-0.1759	-0.1149	
					1.0134	-0.1739	-0.0762	
					1.0065	-0.1800	-0.0600	
					0.9562			
					0.9401			
					0.9813			
					0.9882			
11:50:29	133	211	29.697	-2.8	0.9928	-0.1841	-0.0742	
					1.0752	-0.1882	-0.0783	
					1.0271	-0.1983	-0.0437	
					1.0409	-0.2044	-0.0600	
					0.9836			
					1.0111			
					1.0180			
					0.9745			
11:50:30	133	192	30.700	-2.8	0.9539	-0.1963	-0.0396	DWN LCK
					0.9516	-0.2004	-0.0823	
					0.9951	-0.2004	-0.0355	
					1.0317	-0.2004	-0.0823	
					1.0271			
					0.9882			
					1.0248			
					1.0203			

CVR Local Time	AIRSPEED (knots)	PRESSURE ALT (Fine) (FEET)	HEADING	RADIO ALT. COARSE-rev (FEET)	VERTICAL ACCEL (G'S)	LONG. ACCEL (G'S)	LATERAL ACCEL (G'S)	LDG GEAR RH MAIN
11:50:31	127	183	30.700	-2.4	1.0088	-0.2004	-0.0335	
					0.9951	-0.1983	-0.0742	
					0.9836	-0.1882	-0.0722	
					0.9722	-0.2044	-0.0885	
					0.8898			
					1.0340			
					1.0134			
					1.0271			
11:50:32	122	190	29.697	-2.4	1.0226	-0.1943	-0.0620	DWN LCK
					1.0271	-0.1922	-0.0681	
					0.9607	-0.1780	-0.0701	
					0.9378	-0.1841	-0.0823	
					0.9791			
					0.9768			
					1.0432			
					0.9493			
11:50:33	119	189	28.673	-2.0	0.9562	-0.1861	-0.1088	
					0.9630	-0.2105	-0.1027	
					0.9951	-0.2227	-0.1088	
					0.9745	-0.2289	-0.1108	
					0.9997			
					0.9722			
					0.9172			
					0.9974			
11:50:34	122	199	26.922	-2.0	1.0226	-0.2289	-0.0946	DWN LCK
					1.0340	-0.2411	-0.0946	
					0.9676	-0.2553	-0.1088	
					0.9928	-0.2390	-0.0925	
					0.9722			
					1.0134			
					1.0111			
					0.9722			
11:50:35	113	200	25.481	-2.4	1.0523	-0.0681	-0.0925	
					0.9081	-0.0335	-0.1454	
					0.9836	-0.0518	-0.1882	
					0.9058	-0.0396	-0.1658	
					1.0065			
					1.0042			
					0.9974			
					0.9470			
11:50:36	108	196	23.629	-1.2	0.9584	-0.0498	-0.1536	DWN LCK
					1.0248	-0.0620	-0.1536	
					1.0592	-0.0681	-0.1576	
					1.0180	-0.0620	-0.1373	
					1.0454			
					1.0134			
					0.9699			
					0.9127			
11:50:37	108	224	25.844	-1.2	0.8966	-0.0701	-0.1088	
					1.0180	-0.0722	-0.1068	
					1.0386	-0.0783	-0.0640	
					1.0111	-0.0946	-0.0661	
					1.0088			
					0.9539			
					0.9951			
					0.9768			

CVR Local Time	AIRSPEED (knots)	PRESSURE ALT (Fine) (FEET)	HEADING	RADIO ALT. COARSE-rev (FEET)	VERTICAL ACCEL (G'S)	LONG. ACCEL (G'S)	LATERAL ACCEL (G'S)	LDG GEAR RH MAIN
11:50:38	111	221	31.682	-2.0	1.0042 0.9745 1.0386 1.0088 0.9447 0.9539 0.9676 1.0317	-0.1047 -0.1617 -0.1678 -0.1821	-0.0213 -0.0010 0.0133 0.0092	DWN LCK
11:50:39	105	220	38.276	-1.2	1.0248 1.0180 0.9699 0.9516 0.9333 0.9630 1.0248 1.0432	-0.1719 -0.1251 -0.1230 -0.1210	0.0255 0.0784 0.1191 0.1659	
11:50:40	103	214	44.091	-1.2	1.0386 1.0088 0.9355 0.9493 0.9539 1.0271 1.0317 1.0226	-0.1190 -0.1434 -0.1434 -0.1454	0.1374 0.1659 0.1639 0.1618	DWN LCK
11:50:41	95	217	48.311	-0.9	0.9836 0.9401 0.9905 0.9836 1.0294 0.9630 0.9607 0.8898	-0.1332 -0.1495 -0.1943 -0.2207	0.1578 0.1740 0.1659 0.1862	
11:50:42	90	234	51.724	-1.6	1.0477 1.0500 1.2721 0.9584 0.9516 0.9562 0.9149 0.8829	-0.3265 -0.3143 -0.2614 -0.2573	0.2147 0.2188 0.1903 0.2005	DWN LCK
11:50:43	78	235	55.797	-1.6	1.0569 1.0889 1.2080 1.0500 0.8302 0.7890 0.8531 1.0912	-0.2451 -0.1047 -0.0966 -0.1129	0.3002 0.2025 0.2330 0.2025	
11:50:44	70	246	59.967	-2.0	0.9745 0.9447 0.5601 0.5601 0.8119 1.3293 1.4415 1.1622	-0.0803 -0.1129 -0.3998 -0.1353	0.1618 0.1923 0.4447 0.2005	DWN LCK

CVR Local Time	AIRSPEED (knots)	PRESSURE ALT (Fine) (FEET)	HEADING	RADIO ALT. COARSE-rev (FEET)	VERTICAL ACCEL (G'S)	LONG. ACCEL (G'S)	LATERAL ACCEL (G'S)	LDG GEAR RH MAIN
11:50:45	52	269	63.794	-2.0	0.8692 0.7776 0.8577 0.9378 1.0386 1.1599 1.2446 0.9928	-0.1271 -0.1393 -0.1902 -0.1658	0.1639 0.1944 0.2086 0.1903	
11:50:46	59	275	67.507	-2.0	0.7180 0.6059 0.8371 1.3889 1.2423 1.1828 1.1118 0.5875	-0.1210 -0.2573 -0.2309 -0.1169	0.2208 0.3389 0.2473 0.0906	DWN LCK
11:50:47	41	270	71.030	3.4	0.5853 0.6929 1.1210 2.0208 1.4324 0.3815 0.4341 -0.0810	-0.1658 -0.9105 0.0458 -0.5463	0.1333 -0.4669 0.1171 -1.0835	
11:50:48								
11:50:49								
11:50:50								

American Airlines Flt 1420, Little Rock, AR, 6/1/99, DCA99MA060
 Plot 2, Created: August 30, 1999, Vehicle Recorders Division RE-40 - NTSB

CVR Local Time (hh:mm:ss)	ROLL (DEG.)	PITCH (DEG.)	THRST REV LH	THRST REV RH	GPWS WARN	ELEV LT POS	RUD POS	LT ALR POS	SPOILER LT QBD	SPOILER RT INBD	G-S DEV 1 (dots)	LOC. DEV 1 (dots)
11:49:50	-6.0	-3.2	STW		Off	3.5	3.9	0.6	0.6	0.5	-0.6	-0.4
	-3.9	-1.8					6.7		1.4	2.1		
11:49:51	-2.1	-0.7		STW	Off	-5.3	9.2	2.7	5.6	2.1	-0.6	-0.5
	-2.5	0.0					9.0		3.5	2.1		
11:49:52	-3.5	0.0	STW		Off	-9.8	7.5	-2.0	0.6	1.8	-0.5	-0.4
	-4.6	-1.1					7.4		0.6	0.9		
11:49:53	-3.9	-1.4		STW	Off	-2.8	6.7	7.8	0.6	1.5	-0.6	-0.6
	-2.8	-1.4					2.9		8.1	2.1		
11:49:54	-5.6	-1.1	STW		Off	-9.0	2.2	-3.3	8.4	2.1	-0.6	-0.6
	-9.1	-1.4					4.2		0.6	7.2		
11:49:55	-9.1	-2.1		STW	Off	-0.8	6.9	-4.7	0.6	5.8	-0.7	-0.7
	-6.0	-2.5					7.7		0.6	0.6		
11:49:56	-2.5	-2.1	STW		Off	-8.9	7.9	1.6	2.8	2.0	-0.6	-0.9
	-1.8	-1.4					5.0		2.4	2.0		
11:49:57	-1.1	-2.1		STW	Off	1.6	-1.8	7.4	8.1	1.9	-0.7	-0.8
	-2.5	-2.5					-0.6		8.4	2.1		
11:49:58	-5.3	-2.1	STW		Off	3.6	3.2	-0.6	7.0	2.0	-0.6	-0.9
	-7.4	-0.7					8.8		0.6	2.6		
11:49:59	-7.7	0.7		STW	Off	-4.4	9.2	-0.4	0.6	1.7	-0.7	-0.9
	-7.4	1.4					8.7		0.6	0.5		
11:50:00	-6.3	1.4	STW		Off	-9.7	8.8	-4.5	0.6	3.4	-0.7	-1.0
	-4.9	0.7					10.0		0.6	4.2		
11:50:01	-3.9	-1.1		STW	Off	3.9	10.0	-2.0	0.6	5.5	-0.9	-1.0
	-2.8	-1.4					1.4		0.6	1.5		
11:50:02	-2.5	-0.7	STW		Off	-9.9	-6.1	8.5	2.4	2.1	-1.1	-0.8
	-4.6	0.0					-6.5		9.1	1.9		
11:50:03	-8.1	-0.7		STW	Off	0.9	3.1	-6.7	0.6	7.8	-1.4	-0.9
	-7.7	-0.7					5.9		0.6	2.8		
11:50:04	-4.9	0.0	STW		Off	-8.7	10.0	-0.7	0.6	1.9	-1.5	-0.9
	-3.5	0.0					11.2		0.6	1.8		
11:50:05	-2.8	-1.4		STW	Off	-0.5	9.3	1.7	0.6	1.9	-1.7	-0.9
	-3.2	-2.5					6.7		2.1	1.9		
11:50:06	-4.6	-2.5	STW		Off	-2.9	10.3	-3.9	0.6	7.2	-2.0	-0.8
	-4.6	-2.5					11.2		0.6	1.1		
11:50:07	-3.2	-1.4		STW	Off	-8.4	6.0	7.1	0.6	2.0	-2.1	-0.7
	-2.1	-0.7					4.1		8.1	2.0		
11:50:08	-3.9	-0.7	STW		Off	-8.3	8.0	-6.5	1.0	6.0	-2.3	-0.7
	-3.2	-1.1					11.4		0.6	7.7		

CVR Local Time (hh:mm:ss)	ROLL (DEG.)	PITCH (DEG.)	THRST REV LH	THRST REV RH	GPWS WARN	ELEV LT POS	RUD POS	LT ALR POS	SPOILER LT OBD	SPOILER RT INBD	G-S DEV 1 (dots)	LOC. DEV 1 (dots)
11:50:09	-0.4	-1.4		STW	Off	0.6	7.5	3.2	0.6	2.0	-2.6	-0.5
	1.4	-1.1					14.8		4.5	1.7		
11:50:10	2.8	-2.1	STW		Off	-8.8	16.9	-2.2	0.6	4.6	-2.8	-0.4
	4.6	-3.2					12.0		0.6	1.2		
11:50:11	6.0	-4.6		STW	Off	11.5	7.4	-0.6	0.3	1.8	-2.9	-0.3
	7.4	-3.9					11.1		0.6	2.0		
11:50:12	8.4	-2.1	STW		Off	-8.9	11.7	5.8	7.0	2.1	-2.9	-0.1
	7.0	-1.1					15.7		7.7	1.9		
11:50:13	5.3	-1.8		STW	On	-9.7	7.9	-1.0	0.6	1.8	-3.1	-0.1
	4.6	-3.2					12.8		0.6	5.5		
11:50:14	5.3	-3.9	STW		Off	10.2	7.9	1.6	0.6	0.9	-3.1	0.0
	6.0	-2.8					7.0		2.1	2.2		
11:50:15	6.0	-1.1		STW	Off	2.2	11.9	4.3	4.9	2.1	-3.0	0.1
	5.3	0.0					16.0		6.3	2.0		
11:50:16	4.9	-0.7	STW		Off	5.8	7.0	4.3	3.1	2.0	-2.7	0.1
	4.6	-1.1					6.0		5.9	2.2		
11:50:17	4.6	-1.4		STW	Off	6.0	-4.8	6.3	6.6	2.0	-1.0	0.2
	5.3	-1.1					-12.4		7.7	1.8		
11:50:18	4.9	-0.7	STW		Off	8.0	16.9	3.5	3.8	2.0	2.3	0.1
	3.2	0.0					19.2		5.6	1.9		
11:50:19	0.7	-0.7		STW	Off	6.8	21.7	1.2	0.3	1.2	0.1	0.0
	-1.8	-0.7					-4.6		1.4	1.7		
11:50:20	-1.4	-0.7	STW		Off	-3.9	0.2	4.3	2.8	1.6	-2.9	-0.1
	3.5	-1.1					0.0		7.4	1.8		
11:50:21	2.1	-1.8		STW	Off	-0.3	-8.3	4.7	8.4	1.8	-2.5	-0.2
	-1.1	-1.4					1.2		7.0	1.8		
11:50:22	-1.8	-1.8	UNL		Off	-12.6	-7.6	-1.3	0.6	1.8	-0.4	-0.3
	-0.4	-2.5					5.0		0.3	1.8		
11:50:23	0.7	-2.1		UNL	Off	-17.2	7.2	-1.7	0.3	1.8	-1.5	-0.4
	0.4	-1.8					4.6		0.3	1.8		
11:50:24	-0.7	-1.8	DPL		Off	-15.7	0.5	-2.2	0.3	1.4	-1.8	-0.5
	-0.4	-2.1					4.1		0.3	0.9		
11:50:25	1.1	-1.8		DPL	Off	-17.2	7.4	-4.6	0.3	0.6	-0.9	-0.6
	1.1	-1.8					16.3		0.3	5.8		
11:50:26	0.7	-1.8	DPL		Off	-15.6	15.7	-9.5	0.3	5.9	-1.3	-0.7
	0.0	-1.8					14.5		0.3	9.9		
11:50:27	-0.4	-1.4		UNL	Off	-14.6	14.8	-11.5	0.3	10.4	-0.7	-0.8
	0.0	-1.1					14.8		0.3	10.5		
11:50:28	0.4	-1.4	UNL		Off	-17.0	15.7	-9.8	0.3	10.2	-1.5	-0.9
	0.4	-1.4					7.4		0.3	0.4		

CVR Local Time (hh:mm:ss)	ROLL (DEG.)	PITCH (DEG.)	THRST REV LH	THRST REV RH	GPWS WARN	ELEV LT POS	RUD POS	LT ALR POS	SPOILER LT OBD	SPOILER RT INBD	G-S DEV 1 (dots)	LOC. DEV 1 (dots)
11:50:29	0.0	-1.4		DPL	Off	-16.8	2.7	-1.1	0.3	1.1	-1.1	-1.0
	0.0	-1.4					3.6		0.6	1.4		
11:50:30	-0.4	-1.4	DPL		Off	-14.7	4.7	-2.0	0.6	1.3	-0.3	-0.9
	-0.4	-1.1					13.9		0.3	0.8		
11:50:31	0.4	-1.1		DPL	Off	-15.3	11.7	-8.8	0.3	6.5	0.0	-1.0
	1.8	-1.1					19.8		0.3	10.2		
11:50:32	2.5	-1.1	DPL		Off	-12.6	5.5	-12.7	0.3	11.7	0.5	-0.9
	2.1	-0.7					18.8		0.3	14.3		
11:50:33	2.1	-1.1		DPL	Off	-4.7	21.3	-12.8	-0.1	13.7	0.0	-0.8
	3.2	-1.1					23.9		-0.1	13.9		
11:50:34	2.5	-1.1	DPL		Off	-2.2	21.3	-13.3	-0.1	14.3	-0.9	-0.8
	2.8	-1.1					24.3		-0.1	17.7		
11:50:35	3.9	-1.4		UNL	Off	-2.1	22.1	-14.5	-0.1	46.1	-0.8	-0.7
	3.9	-1.1					21.3		-0.1	58.2		
11:50:36	2.1	-1.4	UNL		Off	-4.0	21.4	-14.5	-0.1	58.9	-0.3	-0.7
	1.4	-1.4					21.3		-0.1	55.3		
11:50:37	2.1	-1.4		UNL	Off	-2.8	21.7	-13.7	-0.1	32.5	-0.4	-0.4
	1.4	-1.4					22.0		-0.1	17.3		
11:50:38	1.8	-1.4	UNL		Off	-2.1	22.6	-4.7	-0.1	5.2	-0.2	0.1
	1.4	-1.4					22.7		-0.1	3.7		
11:50:39	1.4	-1.4		DPL	Off	-0.2	21.4	-0.6	-0.1	0.4	0.0	0.8
	1.8	-1.4					6.5		-0.1	0.4		
11:50:40	1.1	-1.4	DPL		Off	-0.9	4.6	2.4	-0.1	0.6	0.6	1.8
	0.7	-1.4					7.2		1.7	0.6		
11:50:41	0.4	-1.4		STW	Off	-2.6	15.0	-1.2	0.6	1.0	0.5	2.7
	0.0	-1.4					15.6		-0.1	7.8		
11:50:42	1.8	-1.4	DPL		Off	-0.8	17.4	1.3	-0.1	0.8	0.7	3.2
	2.1	-1.4					14.4		-0.1	0.0		
11:50:43	2.1	-1.1		STW	Off	5.8	2.0	11.2	7.4	0.6	1.0	3.4
	1.4	-1.1					-2.6		9.1	0.5		
11:50:44	2.5	-2.1	DPL		Off	11.4	-4.3	10.4	8.4	0.5	0.6	3.5
	2.1	-2.1					-4.8		7.0	0.6		
11:50:45	1.1	-1.8		STW	Off	8.6	-5.5	10.1	8.1	0.5	1.0	3.4
	1.8	-2.1					-9.7		7.4	0.7		
11:50:46	1.4	-2.5	DPL		Off	11.7	-8.7	9.9	6.6	0.4	0.3	3.4
	1.1	-2.1					-15.7		7.0	0.5		
11:50:47	0.7	-2.5		STW	Off	9.6	-20.7	6.6	5.2	0.6	0.4	3.2
	1.1	-5.3					-20.5		4.5	0.1		
11:50:48												
11:50:49												
11:50:50												

American Airlines Flight 1420, Little Rock, AR, 6/1/99, DCA99MA060
 Engine Data, Created: August 30, 1999, Vehicle Recorders Division RE-40 - NTSB

CVR Local Time (hh:mm:ss)	PRESSURE (Fine) (FEET)	N1 LEFT ENGINE (%)	N1 RIGHT ENGINE (%)	EPR LT. ENGINE	EPR RT. ENGINE	THRST REV LH ENG	BRAKE PED. POS (LT.) (DEG.)	BRAKE PED. POS (RT.) (DEG.)	THRST REV RH ENG	EGT LT. ENGINE DEG-C	EGT RT. ENGINE DEG-C
11:49:50	645	69		1.30	1.30	STW	3.4			393	385
11:49:51	631		68	1.31	1.31			-0.6	STW	395	394
11:49:52	607	68		1.31	1.32	STW	3.5			397	395
11:49:53	586		68	1.30	1.30			-0.6	STW	396	390
11:49:54	577	68		1.30	1.30	STW	3.3			393	389
11:49:55	558		67	1.29	1.29			-0.4	STW	389	382
11:49:56	546	66		1.30	1.30	STW	3.5			387	383
11:49:57	527		69	1.30	1.32			-0.5	STW	392	390
11:49:58	526	67		1.27	1.28	STW	3.3			387	379
11:49:59	497		64	1.26	1.26			-0.5	STW	381	373
11:50:00	474	66		1.31	1.29	STW	3.4			389	385
11:50:01	476		70	1.37	1.36			-0.3	STW	398	397
11:50:02	457	73		1.45	1.42	STW	3.4			407	406
11:50:03	441		76	1.50	1.48			-0.4	STW	418	415
11:50:04	435	78		1.52	1.50	STW	3.2			422	418
11:50:05	426		77	1.50	1.49			-0.5	STW	425	419
11:50:06	413	77		1.41	1.43	STW	3.4			422	410
11:50:07	398		71	1.33	1.34			-0.4	STW	404	392
11:50:08	386	69		1.33	1.33	STW	3.3			398	395
11:50:09	377		71	1.36	1.37			-0.5	STW	404	403
11:50:10	365	72		1.38	1.39	STW	3.4			406	407
11:50:11	350		73	1.39	1.40			-0.3	STW	407	409
11:50:12	332	73		1.39	1.40	STW	3.4			410	408
11:50:13	304		71	1.35	1.34			-0.4	STW	405	397
11:50:14	297	70		1.32	1.32	STW	3.3			400	393
11:50:15	291		66	1.25	1.27			-0.3	STW	389	379
11:50:16	256	62		1.17	1.22	STW	3.4			376	366
11:50:17	228		54	1.13	1.14			-0.6	STW	353	341
11:50:18	232	50		1.12	1.11	STW	3.5			347	347
11:50:19	210		46	1.12	1.10			-0.5	STW	354	367
11:50:20	171	48		1.11	1.09	STW	3.3			355	372
11:50:21	167		47	1.11	1.12			-0.4	STW	378	408
11:50:22	170	46		1.10	1.09	UNL	3.1			362	380
11:50:23	152		43	1.17	1.09			0.1	UNL	377	380
11:50:24	165	55		1.35	1.14	DPL	2.9			432	434
11:50:25	163		57	1.77	1.25			2.8	DPL	471	489
11:50:26	167	91		1.89	1.67	DPL	2.2			500	516
11:50:27	178		70	1.33	1.41			6.7	UNL	440	424