19920822I1_FDIR

H.ANDREW SYNOPTIC FLOW

FLIGHT #1 OF 2 I920822 (E'RN MOST ACFT DEP'G FM MJSJ)

TYPE OF DATA	SENSOR OR OPTION
INE	2
Accelerometer	2
Temperature probe	TT1
Altitude change option (for vertical winds)	RA/APN-159
Static pressure	Rosemount fuselage
Dynamic pressure	Rosemount fuselage
Time source	Micro 29
Constants file	CO3922.CON

Notes:

THE DEWPOINT SENSOR, TW1, WAS CALIBRATED BY THE FLIGHT DIRECTOR AT THE FOLLOWING TIME(S) 183600Z.
THE SPIKE WAS REMOVED AND PATCHED OVER.

OCCASIONAL DEWPOINTER WET-BULBING MAY OCCUR ON ANY GIVEN FLIGHT WHEN IN VERY MOIST CONDITIONS.

THIS FLIGHT WAS RENAV'D UTILIZING GPS POSITIONING...

SPECIAL NOTE!!! Locations 80, 81 and 82 of record five on the standard tape contain vertical ground, vertical air and vertical speeds, respectively, computed using Dave Jorgensen's vertical wind algorithm.

	Take off	Landing
AIRCRAFT STATIC PRESSURE	1016.3mb	1017.8mb
AIRCRAFT SURFACE PRESSURE	1016.7MB	1018.1MB
CORRECTED TOWER PRESSURE	1015.5mb	1017.8mb

FLIGHT METRO: PHILIP D. BOGERT

A/C COMMANDER	NAVIGATOR	A/C NO.	MISSION NO.	TIME AIRBORNE	LOCATION	DATE	PROJ. NAME
TURNER	WHITE	N43RF	92-038	1718Z	TJSJ	22 AUG 1992	ANDREU

TIME OF ENTRY	POSITION	TYPE INE USED	INE #1 POSITION	LAT LON COR'S	INE #2 POSITION	LAT LON COR'S	ALT / GS	TH / TK	REMARKS
1704Z	18 26.3 66 00.7	4 #1	✓		✓		— —	— —	ENG
1709									TAXI
1718									TOFF
1818	21 33.6 63 00.7	GPS #1	21 32.1 63 00.8	+1.5' -0.1'	21 32.3 63.00.9	+1.3' -0.2'	200 280	007 002	ODW ✓ 21 33.6 63 00.
1840	23 19.4 62 59.6	✓ ✓	23 18.2 62 59.3	+1.2' +0.3'	23 18.9 62 59.4	+0.5' +0.2'	✓ 293	005 001	ODW ✓
1901	25 1.3 63 0.5	✓ ✓	25 01.3 63 00.0	0.0 +0.5'	25 02.4 63 00.3	-1.1' +0.2'	✓ 302	003 360	ODW ✓
1924	26 54.3 62 59.7	✓ ✓	26 53.4 62 59.7	+0.9' 0.0	26 54.6 63 00.1	-0.3' +0.4'	✓ 289	004 001	ODW ✓
1945	28 39.2 62 59.8	✓ ✓	28 36.8 62 59.6	+2.6' +0.2'	28 38.7 63 00.2	+0.5' -0.4'	✓ 297	001 359	ODW ✓
2008	30 32.0 63 05.5	✓ ✓	30 30.2 63 04.2	+1.8' -1.3'	30 32.8' 63 04.8	-0.8' -0.7'	200 285	273 271	ODW
2024	30 32.0 64 31.9	✓ ✓	30 31.1 64 31.1	+0.9' +0.8'	30 34.0 64 31.9	-2.0' 0.0'	220 299	272 270	ODW
2057	28 58.5 66 00.4	✓ ✓	28 56.0 66 00.7	-1.5' -0.3'	28 59.4 66 00.6	-0.9' -0.2'	✓ 309	179 179	ODW
2116	27 24.2 65 59.3	✓ ✓	27 20.5 65 59.7'	+3.7' -0.4'	27 24.4 65 59.1	-0.2' +0.2'	✓ 303	179 180	ODW

ATC CLEARANCE: "V" 150V 30SCT 100S 20V 8673 060/10 30.02" Hg

DEP AUG 8 "V" CCRN MIA 2130 63 ROR AF 330° 5K 190/40 119.4 2353

075° → 10K → 12K → 19K → 20K

ENROUTE CLEARANCES: 2103 FL200 25.40.9N 70.26.3W / 45 DIA / 075°/89kts 15 NM N/500 MB

SFC 8NM E/ DCC NY 24N 69W CCRD 25N 6845W AF

24 26.0N 75.2W 48-24/8 26.4 80.5W

36 24/08 26.2N 77.8W ↘ 8h 30.08 ↓7K

TYPE OF FIX: (1) DR (2) RADIO (3) CELESTIAL (4) VISUAL (5) LORAN (6) RADAR (7) DOPPLER - INERTIAL (8) OMEGA (9) INERTIAL (10) OMEGA - INERTIAL

NOAA FORM 56-49
(3-86)

5.5
-.2
6.2

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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
OFFICE OF AIRCRAFT OPERATIONS

FLIGHT PLAN

PROPOSED T.O.

ACTUAL T.O.

WAY POINT	TO	RTE	ALT	TAS	TC	W V / DC	TH	VAR	MH	GS	ZONE DIST	TOTAL DIST	ZONE TIME / TOTAL TIME	PROPOSED ETA	ETA
											2454		8423	0935	~~0148~~ 0247
9	25 46 EXTER 76 13									300	190 2634	246	+36 8753	0211	
1	25 42.1 ZBV 79 17.1									300	166 2800	80	+33 9+26	0244	0221
2	BSY									250	60 2860	20	+14 9+46	0258	0235
	25 48.2 MIA 80 17.6									✓	20 2880	0	+05 9+45	0303	0240
								1							
							1718								
							945								
							2703								
							0303								
	5														
	0303														
	0135														
	H28														

SYS	BEGIN ALIGN TIME	NCS CONN	Ω AID	TIME OUT OF COARSE / ELAPSE ALIGN POST TIME	ALIGN STS 0-5	(1) TIME INTO NAV.	(2) TIME OUT NAV.	ΔT (2)(1)	TERMINAL ERRORS LAT	LONG	G S
INS 1											
INS 2 IMU											

ALIGN REMARKS:

OTHER REMARKS:

TIME OF ENTRY	POSITION	TYPE INE USED	INE #1 POSITION	LAT LON COR'S	INE #2 POSITION	LAT LON COR'S	ALT / GS	TH / TK	REMARKS
2133	25 58.7 66 00.3	GPS #1	25 55.7 66 00.3	+3.0' 0.0	26 00.1 65 59.4	-1.4' +0.9'	240 286	179 180	ODW
2153	24 20.1 66 00.7	✓ ✓	24 17.9 66 00.8	+2.1' -0.1	24 22.7 65 59.5	-2.6' +1.2'	✓ ✓	✓ ✓	ODW
2208	22 58.3 65 59.7'						✓ 323	216 217	ODW 33.1K
2233	21 5.3 67 01.9	GPS ✓	21 00.5' 67°03 3'	+4.8' -1.4'	21 05.9' 67°01.1'	-0.6' +0.8'	240 333	268 267	ODW
2253	21 05.5 68 59.9	S ✓	21 00.1 69 00.3	+5.4' -0.4'	21 05.8 68 58.0	-0.3' +1.9'	240 322	357 356	ODW
2327	24 01.5 69 01.7		23 57.4' 69 02.4'		24 03.7' 69 00.2		✓ 306	N N	A/H NY
0006	25 34.3 71 5.8	GPS ✓	25 27.2 71 07.0		25 34.6 71 04.4		250 325	278 282	ODW 25 30N CENTER 71 06W
0015	—	— —	25 17.3 71 54.3		25 24.3 71 51.6		✓ 337	138 141	ODW
0028	25 31.0N 71 7.2W	GPS ✓	—	—	—	—	✓	N N	ODCO 25 30N CENTER 71 10W
0057	26 25.5 72 59.8	GPS ✓	26 19.2 72 00.2	+6.2' -0.6'	26 26.8 72 57.6	-1.3' +2.0'	250 347	176 180	ODW
0108	—	— —	25 29.3 73 12.3	—	25 37.0 73 08.8	—	250 334	279 274	ODW
0230									LAND
0234	25 48.2 80 17.6	4 #1	25 39.9 80 20.3	+8.3 -2.7'	25 48.2 80 15.8	0.0 +1.8'	— —	— —	STOP

B Form 413-50
- 63

920822I

✓ oh on 902...

Time	LAT		LONG		TRK	HDG	WS	PA	GA	TA	Td	SP	PS		
1812	21	12	63	18	042	055	21	6619	6424	-9.6	-28.2	061	464.2	ENR	pt 1
1833	22	41	62	59	360	083	19	6616	6429	-9.4	-28.0	057	464.3	ENR	2
1903	25	11	63	05	360	074	18	6610	6427	-9.5	-23.8	070	464.7	ENR	4
1924	26	56	63	00	360	073	13	6600	6442	-9.8	-23.8	098	465.4	VCNTY	4
1947	28	48	63	00	360	023	04	6103	6445	-10.4	-23.4	121	465.2	VCNTY	5
2012Z	30	32	63	23	271	280	08	6600	6438	-10.4	-20.5	100	465.4	W. Bnd	
2036	30	30	65	43	270	351	11	6733	7107	-13.9	-22.1	077	426	NR # 8	
2118	27	13	66	40	180	135	10	6728	7095	-13.1	-26.5	062	427	NR # 10	
2140	25	23	66	00	181	143	23	7367	7760	-18.4	-33.4	068	390	NR # 12	
2246	21	04	68	16	268	270	05	7357	7723	-18.5	-33.4	057	390	NR # 15	
0049	26	35	72	06	268	061	37	7666	8072	-22.1	-24.0	122	374		
0144	25	39	76	40	266	008	02	7650	8100	-21.3	-26.6	130	374		

U.S. DEPT. COMM./NOAA/OAO - DATA SECTION WORK FORM NO.1 OAOWF1 FILE

FLT ID: 920822H	FM: TSJS	TO: KMIA
FLT NO: 92-038	BLK IN: 0234Z	ATA: 0230Z
ETD: 1715Z	BLK OUT: 1710Z	ATD: 1718Z
ETE: 10+00	BLK TIME: 9+20. (9.3)	FLT TIME: 9+12 (9.2)
SPONSOR ORG: HRD	PROGRAM: SYN. FLOW	PURPOSE: H. Andrew

OAO PERSONNEL

AC	TURNER ✓	SYS ENG	ROLES ✓
CP	KENNEDY ✓	DATA SYS	PRADAS ✓
NAV	WHITE ✓	RADAR	
FE	BAST ✓	BT/ODW	LYNCH
RADIO	SANSSOUCI ✓	CLD PHYS	
FD	BOGERT ✓	DOPPLER	

5 CREW

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
McFadden ✓		AOC
CLOSSER ✓		"
MARKS ✓		HRD
DEMARIA ✓		"
Camache ✓		"
DODGE ✓		"
	15 S.O.B.	

PROPOSED/ACTUAL MISSION/REMARKS (RECCO, FIXES, STORM, PENET, NHOP #)

Behind HURR. "Andrew" w/ Synoptic Flow Pattern

ALT - 3002/1015.5mb
SP - 1016.7
PS - 1016.3

ALT: 3008/1017.8mb
SP - 1018.1 Mb
PS - 1017.8 mb

D.P. BAC @ 1836Z,
L.F. RADAR ~ 00Z
NOAA/OAO comp. ~ 0115Z.

0006Z CNTR
25-30N 71-06W

0028Z CNTR
25-30N 71-10W

HURR. PENETRATIONS = 2

U.S. DEPT. COMM./NOAA/OAO - DATA SECTION WORK FORM NO.2 OAOWF2 FIL

FLT ID: 920822H TIME OFF: 17182 TIME ON: 23/02302

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE				

	NO	DATA DISPOSITION/DATE/QUALITY
1/SEC FLT LVL TAPES	1	
FAST FLT LVL TAPES	Ø	
RADAR TAPES	6	
DOPPLER TAPES	Ø	
ODW CASSETTES	6	
HARD COPIES	Ø	
DAT/PMS	1	
AXBT	Ø	
AXCP	Ø	
ODW	23	18 Good

PHOTOGRAPHY

	FWD	LS	RS	VERT	
ON	✓	✓	✓		
OFF	✓	✓	✓		
RATE					

REMARKS

43RF

Track distance table (nm) File: AND1PI.DAT

#	LAT	LON	LEG	TOTAL	TIME
0	18 18	66 12	0.	0.	0:00
1	21 30	63 00	264.	264.	0:55
2	30 30	63 00	540 ✓	804.	2:46
3	30 30	66 00	155 ✓	959.	3:18
4	23 00	66 00	450 ✓	1410.	4:52
5	21 00	67 00	132 ✓	1542.	5:19
6	21 00 (73)	69 00 (75)	112 ✓	1654.	5:42
7	23 00	69 00	120 ✓	1774.	6:07
8	26 00 25N	68 30 06845	182 ✓	1956.	6:45
9	~ 26 20	70 15	96 ✓	2053.	7:05
10E	~ 26 20	71 00	40 ✓	2093.	7:13
11	~ 26 20	71 45	40 ✓	2133.	7:21
12	~ 25 40	71 00	57 ✓	2190.	7:31
13E	~ 26 20	71 00	40 ✓	2230.	7:41
14	~ 27 00	71 00	40 ✓	2270.	7:50
15	27 00	73 00	107 ✓	2377.	8:12
16	25 30	73 00	90 ✓	2467.	8:30
17	25 36	80 06	385 ✓	2851.	9:50

— ADJ PT, 25N 068-45W

← 40 NM E OF EYE

← EYE

← 40 NM W OF EYE

← 40 NM S

← EYE

← 40 NM N

ODW drop locations File: AND1PI.DAT

#	LAT	LON	TIME
1	21 30	63 00	0:55 — 18182 ↑
2	23 18	63 00	1:17 — 18402 ↑
3	25 06	63 00	1:39 — 19018 ↑
(4)	26 54	63 00	2:02 — 19242 ↑
5	28 42	63 00	2:24 — 19452 ↑
(6)	30 30	63 00	2:46 — TURN ✓ 20082 ↓ 20122 ↑
7	30 30	64 30	3:02 — 20242 ↑
(8)	30 30	66 00	3:18 — TURN 20432
9	29 00	66 00	3:37 — 21022
10	27 30	66 00	3:56 — 21222
11	26 00	66 00	4:14 — 21332 ↑
12	24 30	66 00	4:33 — 21522
13	23 00	66 00	4:52 — 22082 ↑
(14)	21 00	67 00	5:19 — TURN — 22332
(15)	21 00	69 00	5:42 — TURN — 22552
16	23 00	69 00	6:07 — 23432 @ 25N 69W
17	24 30	68 45	6:26
(18)	26 00	68 30	6:45 — TURN
19	26 20	70 15	7:05
20E	26 20	71 00	7:13
21	26 20	71 45	7:21
22	27 00	73 00	8:12
23	25 30	73 00	8:30
24	25 30	76 30	9:10 — 06072

○ = TURNS

(I flamed Roseline...)

{ " }

{ " }

005734 26-20N 73-00W ✓

NOAA FORM 56-49
(3-86)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
OFFICE OF AIRCRAFT OPERATIONS

FLIGHT PLAN

PROPOSED T.O. 17007 8/22/92
ACTUAL T.O. 1718 8/22/92

WAY POINT	TO	RTE	ALT	TAS	TC	W V DC	TH	VAR	MH	GS	ZONE DIST	TOTAL DIST	ZONE TIME / TOTAL TIME	PROPOSED ETA	ETA / ATA	
(1)	18 26.3 SJU 66 00.7											2880				
(2)	21 30 63 00									230 300	250 250	2630	+2630 +456 / 456	1814	1818	+4
(3)	25 63									✓	207 457	2423	+41 173 / 173	1855	1900 1901	
(4)	30 30 63									✓	333 790	2090	1407 2444	2002	2007	+5
(5)	30 30 66									✓	153 943	1937	+31 +15 / 15	2033	2038 2038	
(6)	27 66									✓	213 1156	1724	+43 4408	2116	2120 2120	
(7)	23 66									✓	237 1393	1487	+47 4+55	2203	2208 2208	
(8)	21 67									✓	134 1527	1353	+27 5+22	2230	2233 2233	+3
(9)	21 69 -									✓	103 1840	1240	+23 5+45	2253	2258 2258	
(1)	23 69									✓	122 1762	1118	+33 6+09	2317	2317	
(2)	25 68 45									✓	120 1882	998	+24 6+33	2341	2337	
(3)	26 68 30									✓	60 1943	938	+12 6+45	2353		
(4)	26 12 70 05									✓	90 2032	848	+18 7+03	0011	28	
	26 12 70 45 EYE									✓	40 2072	808	+08 7+11	0019	0005	
	26 12 71 35									✓	40 2112	768	+08 7+19	0027		
	25 30 71									✓	55 2167	713	+11 7+30	0038		
	26 12 71 EYE									✓	40 2207	673	+08 7+38	0046		
	27 71									✓	50 2257	623	+10 7+48	0056	0043	
(7)	27 2630 73									✓	107 2364	516	+21 8+09	0117	0158	
(8)	2530 73									✓	90 2454	426	+18 8+27	0135	0206	

SYS	BEGIN ALIGN TIME	NCS CONN	Ω AID	TIME OUT OF COARSE / ELAPSE ALIGN POST TIME	ALIGN STS 0-5	(1) TIME INTO NAV.	(2) TIME OUT NAV.	ΔT (2)(1)	TERMINAL ERRORS LAT	LONG	G S
INS 1	16152	NO	NO	—	0	17012	2634	9+34	+8.3	-2.7'	7
INS 2 IMU	✓	✓	✓	—	0	✓	✓	✓	0.0	+1.8	5 ✓

ALIGN REMARKS:

OTHER REMARKS:

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Dynamic pressure	Rosemount fuselage
Time source	Micro 29
Constants file	C03922.CON

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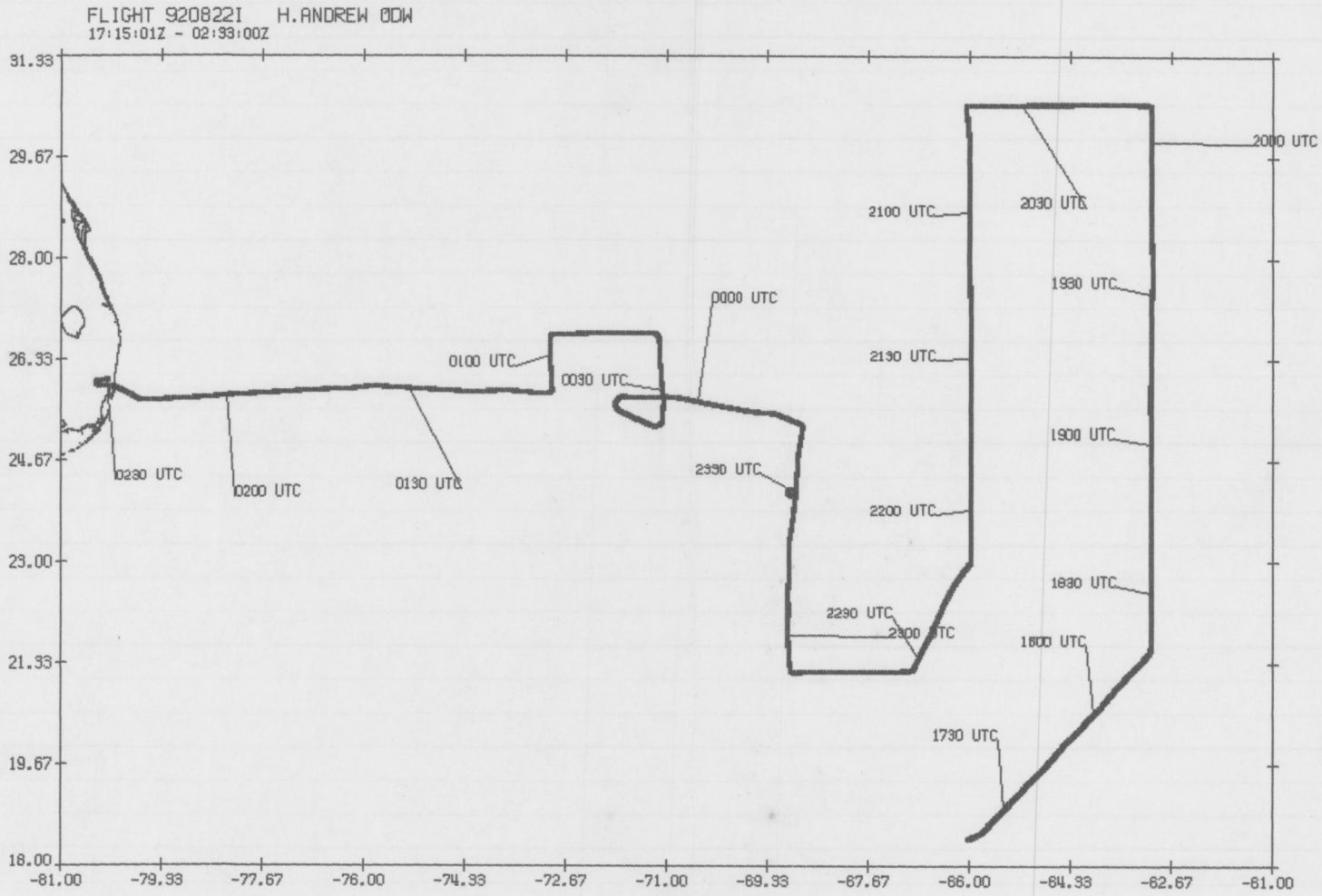
AIRCRAFT SURFACE PRESSURE	1016.7MB	1018.1MB
CORRECTED TOWER PRESSURE	1015.5mb	1017.8mb

FLIGHT METRO: PHILIP D. BOGERT


FLIGHT 920822I H.ANDREW 0DW
17:15:01Z - 02:33:00Z
31.33
29.67
28.00
26.33
24.67
23.00
21.33
19.67
18.00
-81.00
-79.33
-77.67
-76.00
-74.33
-72.67
-71.00
-69.33
-67.67
-66.00
-64.33
-62.67
-61.00
2000 UTC
2030 UTC
2100 UTC
1930 UTC
0000 UTC
2130 UTC
0100 UTC
0030 UTC
1900 UTC
2330 UTC
0230 UTC
0200 UTC
0130 UTC
2200 UTC
1830 UTC
2290 UTC
2300 UTC
1800 UTC
1730 UTC