

19940910I1-FDIR

T.S. DEBBY GENESIS

FLIGHT #01 I940910

TYPE OF DATA

SENSOR OR OPTION

INE	2
Accelerometer	1
Temperature probe	1
Altitude change option (for vertical winds)	RA232
Static pressure	Rosemount fuselage
Dynamic pressure	Rosemount fuselage
Time source	Micro 99
Constants file	CO3943.CON

Notes:

There were two short duration time/data gaps:

015153Z - 015200Z
015216Z - 015220Z

The fuselage static pressure sensor, PSF, experienced numerous electronic dropouts during the following time frames:

2030Z - 2032Z
2037Z - 2039Z
2038Z - 2042Z
2044Z - 2047Z
2051Z - 2053Z
2057Z - 2059Z
2110Z - 2114Z
2117Z - 2123Z
2125Z - 227Z
2133Z - 2139Z
2143Z - 2151Z
2154Z - 2156Z
2158Z - 2206Z
2208Z - 2218Z
2223Z - 2225Z
2229Z - 2233Z
2237Z - 2247Z
2247Z - 2250Z
2251Z - 2255Z
2255Z - 2257Z
2257Z - 2259Z
2304Z - 2306Z
2308Z - 2310Z
2318Z - 2328Z
2328Z - 2330Z
2348Z - 2350Z
2358Z - 0004Z
0011Z - 0017Z
0040Z - 0045Z

0053Z - 0055Z
0058Z - 0104Z
0111Z - 0113Z
0128Z - 0131Z
0134Z - 0143Z
0146Z - 0148Z
0154Z - 0156Z
0213Z - 0216Z
0221Z - 0227Z

All of these dropouts were removed and patched.

The fuselage dynamic pressure sensor, PQF1, experienced electronic dropouts during the following time frames:

1957Z - 1959Z
2010Z - 2020Z
2026Z - 2030Z
2035Z - 2037Z
2241Z - 2245Z
2301Z - 2305Z
2312Z - 2316Z
2317Z - 2322Z
2357Z - 0000Z
0108Z - 0112Z
0237Z - 0247Z
0247Z - 0253Z

These dropouts were removed and patched.

The dewpoint sensor, DW1, was balanced by this flight meteorologist. The spike generated by this action during the time frame, 1950Z-1956Z, was removed and patched.

The J-W Liquid Water probe did not work for the entire flight.

The aircraft INE positions were renavigated with respect to GPS.

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
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Aircraft static pressure	1017.2mb	1008.8mb
Corrected tower pressure	1017.6mb	1008.6mb

Flight Meteorologist: A. Barry Damiano, (813) 828-3310 ext. 3073

FLT ID: <u>I940 910</u>	FM: <u>KMCF/KOPF</u>	TO: <u>TBPB</u>
FLT NO: <u>94-026</u>	BLK IN: <u>1703Z / 0310Z</u>	ATA: <u>1659Z / 0307Z</u>
ETD: <u>1600Z</u>	BLK OUT: <u>1605Z / 1814Z</u>	RTD: <u>1617Z / 1820Z</u>
ETE:	BLK TIME: <u>:58 / 8:56</u>	FLT TIME: <u>:42 / 8:47</u>
SPONSOR ORG: <u>HRD</u>	PROGRAM: <u>HURR. RESEARCH</u>	PURPOSE: <u>GENESIS OF T.S. DEBBY</u>

DAO PERSONNEL

AC <u>TICKNOR</u> ✓	SYS ENG <u>ROLES</u> ✓
CP <u>TENNESEN</u>	DATA SYS <u>LYNCH</u> ✓
NAV <u>RATHBUN</u> ✓	RADAR <u>GONZALEZ</u> ✓
FE <u>WADE/BAST</u> ✓	BT/ODW
RADIO <u>SANS SOUCI</u> ✓	CLD PHYS
FD <u>D AMIANO</u> ✓	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/DAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
<u>CLOSSER</u>	<u>MECH</u>	<u>AOC</u>
<u>McFADDEN</u>		<u>AOC</u>
<u>KAPLAN</u>		<u>HRD</u>
<u>GRIFFIN</u>		<u>S</u>
<u>Mr. BLACK</u>	<u>RADAR</u>	<u>✓</u>
<u>WILLOUGHBY</u>	<u>PI</u>	<u>✓</u>

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

TT1 acting funny at T/O then TT2 til 1620Z

DROPOUTS occurring on PSF and TT's

SYSTEM DOWN 163930Z

System up 1646Z

out of MACDILL

NO J-W PROBE

1940Z switched to RA232

1951Z Bul DW1

155230Z

TT check

1914Z

GPS DROPOUT

2203Z SFC center

15028' From 500MB

65058'

0058Z SFC CENTER

1536' from 500MB

6650'

0110 TT check

0117Z

U.S. DEPT. COMM./NOAA/ORA - DATA SECTION WORK FORM NO.2 DROWF2 FILE

FLT ID: 1940910

TIME OFF: 1617z/1820z TIME ON: 1659z/0307z

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	1017.6/1017.0	30.08/30.05	1016.9	30.08/30.02

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES

1

FAST FLT LVL TAPES

RADAR TAPES

1

DOPPLER TAPES

ODW CASSETTES

4

HARD COPIES

PMS

1

AXBT

AXCP

ODW

8

PHOTOGRAPHY

	FWD	LS	RS	VERT	
ON					
OFF					
RATE					

REMARKS

I940910

TIME	LAT	LONG	TRK	HD	WD	WS	PA	GA	TA	TD	SP	PS		PG
162000	2739	8231	180	179	58	6	1867	2044	15.1	9.3	1017.3	788.7	CLDS	81.6
162800	2706	8215	149	149	19	4	2709	2881	11.1	2.5	1016.1	726.4	CLDS	118.4
164900	2605	8050	111	112	142	10	748	775	21.7	20.4	1016.0	949.5	CLDS	68.9
182300	2557	8005	54	58	158	15	904	1021	20.3	18.7	1018.4	888.0	RLW	60.2
184900	2522	7823	122	127	225	26	5146	5464	-5.0	-17.3	1017.7	529.8	CLD ARV	79.0
194000	2310	7430	111	113	145	13	5136	5465	-2.8	-17.4	1009.0	530.4	-SCT	83.4
195300	2240	7331	120	121	145	11	5140		-2.6	-17.4		530.0	-SCT	88.3
201100	2158	7211	124	123	88	10	5166	5460	-2.4	-21.5	1008.3	528.3	-SCT	84.3
202500	2124	7108	118	117	88	13	5166	5457	-2.8	-21.6	1009.5	528.3	-SCT	87.6
204200	2041	6956	122	122	107	16	5193	5901	-4.8	-23.7	1006.7	498.7	BKN	80.5
210500	1942	6817	122	120	70	15	5591	5891	-4.8	-23.0	1005.7	498.9	ARV CLD	81.9
211429	1908	6749	159	157	91	12	5591	5892	-4.7	-23.1	1005.4	498.9	Good ODW	82.7
214050	1705	6658	158	155	73	17	5589	5881	-5.9	-12.4	1005.4	499.1	Good ODW	79.4
215000	1626	6636	149	146	67	13	5588	5871	-5.0	-13.5	1003.7	499.1	CLD RLW	78.5
221200	1450	6608	199	199	36	8	5587	5875	-4.2	-23.0	1002.3	499.1	-FW	77.2
222210	1400	6622	198	199	334	5	5589	5867	-5.0	-16.1	1002.7	499.0	Good ODW	81.8
223600	1254	6643	196	196	22	7	5588	5865	-4.1	-18.9	1001.0	499.1	CLD	79.8
224736	1203	6703	307	309	57	11	5589	5870	-4.4	-23.1	1001.7	499.1	Good ODW	76.7
225800	1235	6744	308	311	56	14	5654	5935	-4.3	-22.9	1001.7	495.7	SCT	78.5
231300	1318	6848	303	305	46	12	5686	5949	-4.2	-23.5	1001.4	493.7	SCT	81.0
232500	1354	6938	305	309	55	15	5592	5885	-3.9	-22.8	1002.6	498.8	DARK	81.7
233500	1425	7021	305	309	54	14	5592	5891	-4.4	-22.8	1004.8	498.9	DARK	81.8
235000	1509	7124	306	309	53	16	5589	5892	-4.3	-23.1	1003.6	498.8	DARK	83.5
235913	1537	7151	92	91	77	16	5591	5889	-4.8	-23.4	1004.3	498.9	Good ODW	82.4
000700	1533	7114	98	97	78	12	5591	5894	-3.7	-22.9	1003.3	498.9	DARK	81.9
002700	1535	6933	88	89	94	11	5591	5887	-4.6	-22.4	1004.0	498.9	DARK	84.7
003328	1534	6900	90	91	96	8	5593	5894	-4.3	-23.1	1003.9	498.9	Good ODW	85.1
005600	1535	6729	90	89	101	6	5591	5881	-4.8	-23.1	1004.6	498.9	DARK	86.0
010200	1532	6632	107	107	256	5	5589	5881	-5.1	-22.6	1004.2	499.0		79.2
011900	1535	6517	92	88	38	24	5587	5882	-6.9	-8.8	1007.2	499.1		74.4
013122	1531	6419	94	92	24	19	5591	5887	-6.0	-8.2	1007.0	498.9	Good ODW	77.0
015100	1530	6245	90	92	129	8	5590	5887	-5.9	-7.8	1005.8	498.9	DARK	83.2
015328	1530	6232	90	92	117	13	5590	5880	-6.4	-6.7	1006.8	499.0	Good ODW	83.1
020900	1533	6116	91	96	173	26	5587	5891	-6.8	-8.0	1009.0	499.0	DARK	75.6
023400	1447	5951	164	166	200	17	5589	5895	-5.8	-8.0	1007.3	499.0	DARK	81.2

A/C COMMANDER	NAVIGATOR	A/C NO.	MISSION NO.	TIME AIRBORNE	LOCATION MCF → OPA →	DATE	PROJ. NAME		
TICKNOR	RATHBUN	N43RF	94-026	1616		10SEP04	DEBBIE		
TIME OF ENTRY	POSITION GPS	TYPE INE USED	INE #1 POSITION	LAT LON COR'S	INE #2 POSITION	LAT LON COR'S	ALT GS	TH TK	REMARKS
1601 1605 1616		GPS #1							ENG START TAXI TAKE OFF
1659	2554.8 8016.3		2554.8 8016.8	0 -5	2555.3 8016.0	-5 +3			
1809 1813 1819									LAND ENG START TAXI TAKE OFF
1900	2456.3 7732.6		2456.3 7733.1	0 -5	2457.4 7731.1	-1.1 +1.5	170 304	126 122	
1934	2321.2 7453.5		2321.4 7454.1	-2 -6	2322.8 7451.7	-1.6 +1.8	170 289	117 116	
2006	2209.3 7229.6		2209.0 7230.8	+3 -1.2	2210.2 7227.6	-9 +2.0	170 288	123 124	
2039	2049.1 7007.9		2048.3 7009.5	+8 -1.6	2049.5 7006.3	-4 +1.6	180 277	123 123	
2114	1908.3 6745.9		1907.2 6750.7	+1.1 -1.8	1908.0 6746.7	+3 +2.2	180 299	157 158	DROP #1
2140	1705.3 6658.6		1704.4 6701.1	+9 -2.5	1704.9 6656.9	+4 +1.7	180 292	155 158	DROP #2
2204	1528.3 6558.8		1527.1 6601.8	+1.2 -3.0	1527.5 6557.8	+8 +1.0	180 306	199 199	5 CENTER
2236	1249.7 6644.5		1247.8 6647.3	+1.9 -2.8	1247.8 6643.0	+1.9 +1.5	180 304	196 195	
2247	1202.9 6702.9		1201.6 6705.8	+1.3 -2.9	1201.2 6701.4	+1.7 +1.5	180 300	311 308	DROP #4
ATC CLEARANCE:		12 67		1520 7120		1520 60W		6600	
								0200	
								0220	
ENROUTE CLEARANCES:		00002 FIX		1531N		06633W		66KFS 1008 M1	
								295/144	
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									

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FLIGHT PLAN

PROPOSED T.O. 1600 Z

ACTUAL T.O. 1616 Z

WAY POINT	TO	RTE	ALT	TAS	TC	W DC	V	TH	VAR	MH	GS	ZONE DIST	TOTAL DIST	ZONE TIME TOTAL TIME	PROPOSED ETA	ETA ATA
1	42750.9 W 82 29.6 MADEIRA															
2	N 25 37.5 W 81 46.5 LEE COUNTY															
3	1126 49.7 W 81 23.5 LA BELLE															
4	1125 57.8 W 80 27.6 MIAMI															
5	1125 54.4 W 80 16.8 OPR LOC MD															
6	1125 42.1 W 79 17.1 RIMINI															
7	N 24 36 W 77 08 RESEAN															
8	1123 57 W 76 00 LAKE OT															
9	N 23 35 W 75 16 STEELE MARIS															
10	1123 08 W 74 23 TUNER															
11	1121 26 W 71 08 GRAND TURK															
12	1120 01 W 65 49 BARRY															
13	1119 16 W 67 38 EDRHO															
14	1117 03 W 67 00 DAKES															
15	1115 18 W 66 00 S															
16	1112 00 W 67 00															
17	1115 30 W 60 00	-1 +4														
18																
19																
20																
21																
22																
23																
24																
25																
26	1113 04 W 59 29.2 GRANDLEY BE															

SYS	BEGIN ALIGN TIME	NCS CONN	Ω AID	TIME OUT OF COARSE	ALIGN STS 0-5	(1) TIME INTO NAV.	(2) TIME OUT NAV.	ΔT (2)(1)	TERMINAL ERRORS		
				ELAPSE ALIGN POST TIME					LAT	LONG	GS
INS 1	1430 Z				0	1600	0307	11407	+7.5	-3.9	6
INS 2 IMU	1450 Z				5	1600	0307	11407	+7.4	+1.5	4

ALIGN REMARKS:

OTHER REMARKS:

102100Z
15.3N+08 19Z 1509
6517