19940822I1_FDIR

DUST FRONT/ FERRY TO MIAMI

FLIGHT #01 I940822

| TYPE OF DATA | SENSOR OR OPTION |
|---|---|
| INE | 1 |
| Accelerometer | 1 |
| Temperature probe | 1 |
| Altitude change option (for vertical winds) | RA159 |
| Static pressure | Rosemount fuselage |
| Dynamic pressure | Rosemount fuselage |
| Time source | Micro 99 |
| Constants file | CO3943.CON |

Notes:

There were no time/data gaps.

The fuselage static pressure sensor, PSF, experienced an electronic dropout during the time frame 183530Z - 183730Z. This dropout was removed and patched.

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

1557Z - 1601Z
1750Z - 1752Z
1754Z - 1756Z
1824Z - 1826Z
1830Z - 1834Z

These dropouts were removed and patched.

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.

| | Takeoff | Landing |
|---|---|---|
| Aircraft static pressure | 1015.5mb | 1014.3mb |
| Corrected tower pressure | 1016.2mb | 1014.5mb |

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

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

| | | |
|---|---|---|
| FLT ID: I940822 | FM: SJU | TO: MCF |
| FLT NO: 94-024 | BLK IN: 1852Z / 1954 | ATA: 1847Z / 1949Z |
| ETD: 1600Z | BLK OUT: 1520Z / 1900Z | ATD: 1528Z / 1908Z |
| ETE: | BLK TIME: 3:32 / :56 | FLT TIME: 3:19 / :41 |
| SPONSOR ORG: HRD | PROGRAM: HURRICANE RESEARCH | PURPOSE: Ferry to MIA/MCF |

OAO PERSONNEL

| | | | |
|---|---|---|---|
| AC | McKIM | SYS ENG | LYNCH |
| CP | KENNEDY | DATA SYS | PRADAS-BERGNES |
| NAV | RATHBUN | RADAR | BARR |
| FE | BAST / MOORE | BT/ODW | McNAMARA |
| RADIO | SAN SOUCI | CLD PHYS | |
| FD | D'AMIANO | DOPPLER | |

PARTICIPATING SCIENTIST/VISITORS/OAO

| LAST, FIRST NAME | ACTIVITY ON A/C | AFFILIATION |
|---|---|---|
| CLOSSER | MECH | AOC |
| WILLOUGHBY | | HRD |
| ABERSON | | ↓ |
| GRIFFIN | | |
| | | |
| | | |
| | | |
| | | |

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

U.S. DEPT. COMM./NOAA/OAO - DATA SECTION WORK FORM NO.2 OADWF2 FILE

FLT ID: I940822 TIME OFF: 1528Z/1908 TIME ON: 1847Z/1949Z

| | A/C T/O | WX STN | A/C LAND | WX STN |
|---|---|---|---|---|
| PRESSURE | 1015.5 | 30.02/1016.2 | 1013.4 | 29.98/1014.5 |

NO 29.97 DATA DISPOSITION/DATE/QUALITY 29.97

| | |
|---|---|
| 1/SEC FLT LVL TAPES | 1 |
| FAST FLT LVL TAPES | |
| RADAR TAPES | |
| DOPPLER TAPES | |
| ODW CASSETTES | |
| HARD COPIES | |
| | |
| | |
| | |
| AXBT | |
| AXCP | |
| ODW | |
| | |
| | |

PHOTOGRAPHY

| | FWD | LS | RS | VERT | |
|---|---|---|---|---|---|
| ON | | | | | |
| OFF | | | | | |
| RATE | | | | | |

REMARKS
1623-1634 Look at DPTs. as we fly through dust layer.
1645Z → thin cld above

1833 check TT's
1838

| A/C COMMANDER | NAVIGATOR | A/C NO. | MISSION NO. | TIME AIRBORNE | LOCATION | DATE | PROJ. NAME |
|---|---|---|---|---|---|---|---|
| CAPT McKIM | LT RATHBUN | N43RE | 94-24 | 1527 | SAN JUAN → OPA LOCKA → MACDILL | 22JUL94 | T.S. CHRIS TRANSIT |

| 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1517 | | | | | | | | | ENGINE START |
| 1520 | | | | | | | | | TAXI |
| 1527 | | | | | | | | | TAKE OFF |
| | 1950.5 | | 1950.6 | -.1 | 1950.5 | Ø | 100 | 295 | |
| 1601 | 6819.Ø | | 6819.2 | -.2 | 6818.6 | +.4 | 334 | 295 | |
| | 2129.6 | | 2128.6 | +1.0 | 2128.9 | +.7 | 100 | 298 | |
| 1642 | 7114.1 | | 7114.0 | +.1 | 7113.6 | +.5 | 278 | 299 | |
| | 2253.8 | | 2253.9 | -.1 | 2254.9 | -1.1 | 100 | 299 | |
| 1720 | 7359.5 | | 7359.5 | Ø | 7358.6 | +.9 | 274 | 249 | |
| | 2439.4 | | 2437.4 | +2.0 | 2439.2 | +.2 | 220 | 306 | |
| 1503 | 7708.9 | | 7708.2 | +.6 | 7707.5 | +1.3 | 304 | 308 | |
| 1847 | | | | | | | | | LAND OPA LOCKA |
| 1907 | | | | | | | | | TAKE OFF |
| | 2713.Ø | | 2708.8 | +4.2 | 2714.2 | -1.2 | ↓ | 306 | |
| 1935 | 8153.7 | | 8153.8 | -.1 | 8152.2 | +1.5 | 303 | 308 | |
| | 2751.6 | | 2747.9 | +3.7 | 2753.9 | -2.3 | | | |
| 1949 | 8230.7 | | 8230.7 | Ø | 8229.2 | +1.5 | | | LAND |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

ATC CLEARANCE:

ENROUTE CLEARANCES: ASS5 BIMINI → OCEAN INTERSECTION

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-[illegible])

U.S. DEPARTMENT OF COMMERCE
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 / ATA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X | N 1826.9 W 6559.4 SAN JUAN | | | | | | | | | | | | | | |
| 2 | N18 59 W 6632 JAWS | | | | | | | | | | | | | | |
| 3 | N 1941 W 6717 UTANS | | | | | | | | | | | | | | |
| 4 | N 2001 W 6849 HARDY | | | | | | | | | | | | | | |
| 5 | N 2126.4 W 7108.0 GRAND TURK | | | | | | | | | | | | | | |
| 6 | N 2308 W 7423 INDEE | | | | | | | | | | | | | | |
| 7 | N 2334.9 W 7515.8 STELLA MARIS | | | | | | | | | | | | | | |
| 8 | N 2357 W 7600 GEROT | | | | | | | | | | | | | | |
| 9 | N 2436 W 7708 RESIN | | | | | | | | | | | | | | |
| 1 | N 2542.1 W 7917.1 BIMINI | | | | | | | | | | | | | | |
| | N 25 57.8 W 80 27.6 MIAMI | | | | | | | | | | | | | | |
| 2 | N 2551 W 7937 DEKAL | | | | | | | | | | | | | | |
| 1 | N 2554.4 W 8016.8 OPA LOCKA | | | | | | | | | | | | | | |
| 2 | N 2557.8 W 8027.6 MIAMI | | | | | | | | | | | | | | |
| 3 | N 2610 W 8042 HAMME | | | | | | | | | | | | | | |
| 4 | N 2625 W 8056 WINCO | | | | | | | | | | | | | | |
| 5 | N 2649.7 W 8123.5 LA BELLE | | | | | | | | | | | | | | |
| 6 | N 2754.5 W 8241.1 STPETE | | | | | | | | | | | | | | |
| 7 | N 2751.0 W 8231.3 MACDILL | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

| 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 | 1425 Z | | | | 2 | 1517 | 1949 | 4+32 | +3.7 | Ø | 0 |
| INS 2 IMU | 1425 Z | | | | 5 | 1517 | 1949 | 4+32 | -2.3 | +1.5 | 3 |

ALIGN REMARKS:

OTHER REMARKS:

RWY 22 N 2751.55 223.5 1949 RWY 4 N 2750.4
HT 14 W 8230.70 1517 W 8231.85 043.5 HT 14
4+32

NOAA FORM 59-4
(2-72)

I940822

| TIME | LAT | LON | TRK | HD | WD | WS | LA | GA | TA | TD | BSP | PS | | | RQ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 153500 | 1845 | 6619 | 314 | 317 | 109 | 23 | 2910 | 3131 | 11.2 | 1.2 | 1016.2 | 703.4 | HAZE | | 64.3 |
| 154800 | 1916 | 6709 | 294 | 296 | 354 | 7 | 5513 | 5869 | -6.9 | -16.8 | 1018.4 | 504.4 | HAZE | | 75.0 |
| 155500 | DOWN TO 10K TO look at dust boundary | | | | | | | | | | | | | | |
| 160500 | 1958 | 6837 | 293 | 292 | 133 | 11 | 3054 | 3271 | 11.1 | -4.5 | 1016.2 | 698.0 | HAZE | | 118.1 |
| 162300 | 2041 | 6952 | 303 | 302 | 157 | 12 | 3054 | 3265 | 10.3 | -1.7 | 1016.3 | 696.3 | HAZE | | 75.2 |
| 163120 | 2103 | 7026 | 302 | 301 | 153 | 9 | 3053 | 3262 | 10.0 | -3.9 | 1016.9 | 696.5 | HAZE + CLD | | 86.3 |
| 164400 | 2133 | 7121 | 299 | 298 | 168 | 10 | 3051 | 3259 | 9.2 | 3.6 | 1017.2 | 696.6 | HAZE | | 87.5 |
| 170100 | 2212 | 7235 | 300 | 298 | 170 | 11 | 3050 | 3253 | 10.3 | -7.1 | 1016.1 | 696.6 | SCT | | 87.1 |
| 173500 | end 10K look at dust boundary | | | | | | | | | | | | | | |
| 181100 | 2459 | 7746 | 298 | 296 | 237 | 12 | 6743 | 7145 | -16.5 | -26.8 | 1020.1 | 425.7 | CLD | BLW | 78.6 |

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