

|                         |                                        |                               |
|-------------------------|----------------------------------------|-------------------------------|
| FLT ID: <i>N970730</i>  | FM: <i>KMCF</i>                        | TO: <i>KMCF</i>               |
| FLT NO: <i>97-065</i>   | BLK IN: <i>1354Z/1846Z</i>             | ATA: <i>1350Z/1741/1840Z</i>  |
| ETD: <i>1300Z</i>       | BLK OUT: <i>1300Z/1442Z</i>            | ATD: <i>1311Z/1448Z/1802Z</i> |
| ETE: <i>11</i>          | BLK TIME:                              | FLT TIME: <i>1</i>            |
| SPONSOR ORG: <i>NWS</i> | PROGRAM: <i>HURRICANE SURVEILLANCE</i> | PURPOSE: <i>SONDE TEST</i>    |

DAO PERSONNEL

|                           |                                  |
|---------------------------|----------------------------------|
| AC <i>PLAYER</i> ✓        | SYS ENG <i>GOLDSTEIN</i> ✓       |
| CP <i>MAXSON</i> ✓        | DATA SYS <i>PRADAS-BERGNES</i> ✓ |
| NAV                       | RADAR                            |
| FE <i>RITSON</i>          | BT/ODW <i>SMITH/HILL</i> ✓       |
| RADIO                     | CLD PHYS                         |
| FD <i>DAMIANO/WHITE</i> ✓ | DOPPLER                          |

PARTICIPATING SCIENTIST/VISITORS/DAO

| LAST, FIRST NAME  | ACTIVITY ON A/C | AFFILIATION |
|-------------------|-----------------|-------------|
| <i>McFADDEN</i> ✓ | <i>??</i>       | <i>AOC</i>  |
| <i>FRANKLIN</i> ✓ | <i>HAPS</i>     | <i>HRD</i>  |
| <i>FEUER</i> ✓    | <i>HAPS</i>     | <i>HRD</i>  |
| <i>McCANN</i> ✓   | <i>??</i>       | <i>AOC</i>  |
|                   |                 |             |
|                   |                 |             |
|                   |                 |             |
|                   |                 |             |
|                   |                 |             |

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

*2751.0*  
*6229.5* STOP ~~AT~~ AT OPA LOCKA TO PICKUP/DROPOFF HRD FOLKS

*1321Z in clld* TTI > all TT 1330Z

*1324 cld. tops*

*132430 NO CLD*

*ADN232 came on at 1502Z*

*MADS SYS CRASH*

*tel 1541Z*

*161421*

*1450Z in clld*  
*1453Z in clld*

*1607Z SOND MSG*

*2554.7*  
*8016.2*

59

U.S. DEPT. COMM./NOAA/DAO - DATA SECTION WORK FORM NO.2 DAOWF2 FILE

FLT ID: N970730

TIME OFF: 1312/1448Z/1802

TIME ON: 1350Z/1741/1840Z

|          | A/C T/O        | WX STN        | A/C LAND                               | WX STN                   |
|----------|----------------|---------------|----------------------------------------|--------------------------|
| PRESSURE | RMEF<br>1018.4 | RMEF<br>30.09 | <del>30.10</del> 1018.4<br>30.10-30.06 | OPF<br>30.10-30.06/30.11 |

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES

FAST FLT LVL TAPES

RADAR TAPES

DOPPLER TAPES

ODW CASSETTES

HARD COPIES

AXBT

AXCP

~~GPS~~ GPS

MESSAGES

12

3

PHOTOGRAPHY

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

REMARKS

4369  
3614386  
306  
5875

N970730

| TIME   | LAT    | LONG   | TRK | HD  | WD  | WS | TA     | TD    | PA    | GA    | PS    |          |  | PQ    |
|--------|--------|--------|-----|-----|-----|----|--------|-------|-------|-------|-------|----------|--|-------|
| 132500 | 2708   | 8200   | 143 | 142 | 147 | 6  | -12.24 | -18.2 | 6446  | 6770  | 443.6 | SET CLD  |  | 162.5 |
| 150320 | 2645   | 8125   | 311 | 311 | 23  | 6  | -24.3  | -39.3 | 6148  | 8587  | 346.8 | CLR      |  | 154.3 |
| 151500 | 2622   | 8234   | 259 | 260 | 68  | 19 | -56.4  | -55.6 | 12414 | 13042 | 179.1 | CLD TOP  |  | 179.4 |
| 151923 | 2627.8 | 8310.6 | 311 | 315 | 56  | 20 | -58.9  | -59.4 | 12539 | 13151 | 176.3 | DROP     |  |       |
| 151946 | 2629.1 | 8312.3 |     |     |     |    |        |       |       |       |       | DROP     |  | 89.4  |
| 152007 | 2630.7 | 8314.2 |     |     |     |    |        |       |       |       |       | DROP     |  |       |
| 154200 | 2728   | 8355   | 123 | 117 | 50  | 19 | -58.4  | -61.5 | 12538 | 13178 | 176.4 |          |  | 88.2  |
| 154800 | 2707   | 8315   | 121 | 115 | 63  | 21 | -58.2  | -62.1 | 12536 | 13165 | 176.5 | THIN CLD |  | 88.1  |
| 155400 | 2643   | 8236   | 129 | 122 | 72  | 25 | -58.9  | -61.6 | 12536 | 13157 | 176.5 | THIN CLD |  | 86.6  |
| 160037 | 2621   | 8301   |     |     |     |    |        |       |       |       |       |          |  |       |
| 160048 |        |        | 311 | 314 | 57  | 21 | -59.1  | -62.1 | 12533 | 13151 | 176.5 | DROP     |  | 85.8  |
| 160100 | 2623.4 | 8303.9 |     |     |     |    |        |       |       |       |       | DROP     |  |       |
| 160800 | 2657   | 8347   | 311 | 312 | 42  | 13 | -58.0  | -62.4 | 12532 | 13159 | 176.5 | CLR      |  | 83.0  |
| 161421 |        |        | 311 | 313 | 14  | 15 | -58.4  | -62.3 | 12533 | 13171 | 176.5 |          |  | 85.3  |
| 162040 | 2733   | 8406   | 123 | 118 | 49  | 17 | -58.3  | -62.1 | 12524 | 13181 | 176.8 | CLR      |  | 94.4  |
| 162600 | 2710   | 8330   | 127 | 122 | 62  | 19 | -58.0  | -61.7 | 12526 | 13181 | 176.8 | CLR      |  | 94.6  |
| 163034 |        |        |     |     | 70  | 20 |        |       |       |       |       | CLD      |  |       |
| 163333 |        |        | 138 | 131 | 74  | 23 |        |       |       |       |       |          |  |       |
| 163848 | 2617   | 8307   |     |     |     |    |        |       |       |       |       |          |  |       |
| 163859 | 2618   | 8304   |     |     | 56  | 22 | -59.1  | -62.2 |       |       |       | DROP     |  |       |
| 163912 | 2618   | 8305   |     |     |     |    |        |       |       |       |       | DROP     |  |       |
| 164500 | 2649   | 8339   | 312 | 315 | 42  | 15 | -58.3  | -62.0 | 12533 | 13173 | 176.5 | CLR      |  | 82.9  |
| 170000 | 2723   | 8403   | 151 | 146 | 56  | 15 | -58.3  | -61.1 | 12536 | 13183 | 177.9 | CLR      |  | 87.2  |
| 170700 | 2637   | 8336   | 153 | 147 | 76  | 20 | -58.5  | -61.2 | 12535 | 13172 | 176.4 | THIN CLD |  | 88.0  |
| 171242 | 2620.3 | 83     |     |     |     |    |        |       |       |       |       |          |  |       |
| 171252 | 2620.3 | 8300   | 97  | 92  | 64  | 27 | -58.8  | -61.7 | 12533 | 13161 | 176.5 | DROP     |  |       |
| 171304 | 2620.3 | 8258.1 |     |     |     |    |        |       |       |       |       | DROP     |  | 84.3  |
| 182200 | 2659   | 8136   | 315 | 313 | 180 | 9  | -10.8  | -23.6 | 6100  | 6390  | 468.4 | CLR      |  | 150.0 |

## N49RF

### INSTRUMENTATION FLIGHT

30 July 1997

|          |      |          |
|----------|------|----------|
| Takeoff: | KMCF | 9:00 am  |
| Land:    | KOPF | 9:45 am  |
| Takeoff: | KOPF | 11:00 am |
| Land:    | KOPF | 1:00 pm  |
| Takeoff: | KOPF | 1:30 pm  |
| Land:    | KMCF | 2:15 pm  |

|                       |                                                        |
|-----------------------|--------------------------------------------------------|
| George Player III     | Aircraft Commander                                     |
| Bob Maxson            | Pilot                                                  |
| Gordon Kitson         | Crew Chief                                             |
| Jim McFadden          | Program Manager                                        |
| Sean White            | Project Manager                                        |
| Barry Damiano         | Flight Director                                        |
| Carlos Pradas-Bergnes | SED                                                    |
| Jeff Smith            | SED                                                    |
| Alan Goldstein        | SED                                                    |
| John Hill             | SED                                                    |
| James Franklin        | Principal Investigator                                 |
| Steve Feuer           | HAPS Operator                                          |
|                       | <del>MAFBI Flight Surgeon/Chief, Operations Div.</del> |

## NOAA/AOC/SED Flight Performance log - N49RF

N49RF Project: Hurricane 97 Project No 410 Flight No. 3a/3 Flight ID: 970730NSED Crew: JCPB, Hill, Goldstein, DAMIANO, Smith, White Mission: Sonde Test flightPre-Flight: 1130 Z Take-Off: 1311/1448/1802Z Landing: 1349/1740/1839 Z

| SYSTEM             |                                                              |         | Pre-Flight                                        | In-Flight    | Post-Flight                                  |         |
|--------------------|--------------------------------------------------------------|---------|---------------------------------------------------|--------------|----------------------------------------------|---------|
| N<br>A<br>V        | IRS #1                                                       |         | ✓ JCPB                                            |              |                                              |         |
|                    | IRS #2                                                       |         | ✓ JCPB                                            |              |                                              |         |
|                    | IRS #3                                                       |         | ✓ JCPB                                            |              |                                              |         |
|                    | GPS Honeywell #1                                             |         | ✓ JCPB                                            |              |                                              |         |
|                    | GPS Honeywell #2                                             |         | ✓ JCPB                                            |              |                                              |         |
|                    | GPS Collins                                                  |         | JCPB (cold start)                                 |              |                                              |         |
| Nose Radar Collins |                                                              |         | L JCPB                                            |              | Off? <input checked="" type="checkbox"/>     |         |
| T<br>E<br>M<br>P   | Time                                                         | Temp °C |                                                   |              | Time                                         | Temp °C |
|                    | Temp #1                                                      | 12:15   | 31.8                                              | JCPB         | 1841                                         | 26.3    |
|                    | Temp #2                                                      |         | 27.7                                              |              |                                              | 26.7    |
|                    | Temp #3                                                      |         | 31.6                                              |              |                                              | 26.8    |
|                    | Temp #4                                                      |         | 27.7                                              |              |                                              | 26.7    |
|                    | DP Left                                                      |         | 22.0                                              |              | Cal. Time:                                   | 22.7    |
|                    | DP Right                                                     |         | 23.7                                              |              | Cal. Time:                                   | 22.1    |
| P                  | Attack Angle (ADCAOA)                                        |         | ✓ JCPB                                            |              |                                              |         |
| R                  | Slip Angle (BP/DBP)                                          |         | ✓ JCPB                                            |              |                                              |         |
| E                  | Differential (PQ1/PQ2)                                       |         | ✓ JCPB                                            |              |                                              |         |
| S                  | Absolute (PS1/PS2)                                           |         | 1018.2 / 1018.7                                   | ②            |                                              |         |
| S                  | Check Radome Press. Lines                                    |         | ✓ JCPB                                            |              |                                              |         |
| S                  | DOWN PRT-5 ⇌ Open? <input checked="" type="checkbox"/>       |         | JCPB                                              |              | Closed? <input checked="" type="checkbox"/>  |         |
| Y                  | MADS (WINDS/DISCWIN)                                         |         | ✓ JCPB                                            |              | # DATs: 1                                    |         |
| S                  | MADS Printer ⇌ Paper? <input checked="" type="checkbox"/>    |         | JCPB                                              |              |                                              |         |
| T                  | MADS Cal. Date: —                                            |         | QC time: 1259                                     | 00405        | QC time: 1839                                |         |
| E                  | WINDS ⇌ NET BCAST <input checked="" type="checkbox"/>        |         | JCPB                                              |              |                                              |         |
| M                  | HAPS System                                                  |         | JCPB                                              |              | # Msg.: 3 # Attempts: 4                      |         |
| S                  | AVAPS System / Time set? <input checked="" type="checkbox"/> |         | JCPB                                              |              |                                              |         |
|                    | AVAPS Printer ⇌ Paper? <input checked="" type="checkbox"/>   |         | JCPB                                              |              |                                              |         |
|                    | Exterior Walk Around                                         |         | ✓ JCPB                                            |              |                                              |         |
|                    | Inspect DropSonde Chute Bolts                                |         | ✓ JAS                                             |              |                                              |         |
|                    | Satcom (Flight Phone)                                        |         | ✓ JCPB                                            |              | Off CB? <input checked="" type="checkbox"/>  |         |
| M                  | FCU/UPS/CB                                                   |         | CB's Checked? <input checked="" type="checkbox"/> |              | UPS off? <input checked="" type="checkbox"/> |         |
| I                  | AVAPS Sondes                                                 |         | #On Board: 24                                     | #Dropped: 12 | #Good: 9                                     |         |
| S                  | AXBT                                                         |         | #On Board: —                                      | #Dropped: —  | #Good: —                                     |         |
| C                  | APN-232                                                      |         | ✓ JCPB                                            |              |                                              |         |
|                    | Modem Power On? <input checked="" type="checkbox"/>          |         | ✓ JCPB                                            |              |                                              |         |

|   |             |          |           |
|---|-------------|----------|-----------|
| 1 | DAT Tape #1 | On: 1255 | Off: 1841 |
| 2 | DAT Tape #2 | On:      | Off:      |

## Comments:

NO GPSPPS ERRORS

### Problem Description & Observations

#### Hurricane 97

N49RF    N49RF

## N49RF Hurricane 97 AVAPS DropSonde Log

N49RF Project: Hurricane 97 AVAPS TEST '97

Flight ID: 970730N

Mission/Flight: Flight 3

System Status: o.k.

[illegible]