

|                  |                      |                              |
|------------------|----------------------|------------------------------|
| FLT ID: 980922I  | FM: KOPF             | TO: KOPF                     |
| FLT NO: 98-023   | BLK IN: 0128         | ATA: 0123                    |
| ETD: 1730        | BLK OUT: 1721        | ATD: 1728                    |
| ETE: 8+          | BLK TIME: 8:07 (8.1) | FLT TIME: 7.9                |
| SPONSOR ORG: HZD | PROGRAM: Research    | PURPOSE: H. Georges Sea Flow |

OAO PERSONNEL

|                  |                      |
|------------------|----------------------|
| AC Tennessee ✓   | SYS ENG Lynch ✓      |
| CP O'Mara        | DATA SYS Hornbrook ✓ |
| NAV Strong ✓     | RADAR                |
| FE Moore/Wade ✓  | BT/ODW Smith ✓       |
| RADIO Sans Souci | CLD PHYS Closser     |
| FD Parrish ✓     | DOPPLER              |

PARTICIPATING SCIENTIST/VISITORS/OAO

| LAST, FIRST NAME | ACTIVITY ON A/C | AFFILIATION |
|------------------|-----------------|-------------|
| Willoughby, H. ✓ | P.I.            | ITAD        |
| Landsea, C. ✓    | Drop            | ↓           |
| Griffin, J. ✓    | Drop            |             |
|                  |                 |             |
|                  |                 |             |
|                  |                 |             |
|                  |                 |             |
|                  |                 |             |

PROPOSED/ACTUAL MISSION/REMARKS (RECCO, FIXES, STORM, PENET, NHOP, #)  
 Dropped 19 sondes. 17 good, 1 bad winds, 1 bad humid. kg

980922Z H. GEORGES SYNOPSIS FLOW

| Time   | LAT     | LONG    | TK             | WD             | WS   | PA   | GA   | TA    | TI    | SP     | PS    |             |                   |  |
|--------|---------|---------|----------------|----------------|------|------|------|-------|-------|--------|-------|-------------|-------------------|--|
| 173115 | 2559.7  | 80 18   | 91             | 7              | 4.8  | 1007 | 1078 | 21.2  | 19.4  | 1014.8 | 888   | ↑           |                   |  |
| 173630 | 26 10.2 | 79 36.1 | 10             | 106            | 1    | 3081 | 3276 | 10.4  | 4.4   | 1012.9 | 689.2 | ↑           |                   |  |
| 1751   | 2700    | 79 36   | 17             | 170            | 4    | 4915 | 5221 | -0.4  | -20.6 | 1010.3 | 544   | ↑           |                   |  |
| 1807   | 2808.1  | 79 05.8 | 21             | 202            | 4    | 5184 | 5505 | -1.1  | -11.3 | 1008   | 527   | -17K        |                   |  |
| 181915 | 2901.4  | 78 42.7 | 22             | 290            | 9.2  | 5180 | 5497 | -0.9  | -6.0  | 1006.6 | 527.4 |             |                   |  |
| 182650 | 29 31   | 78 27   | 92             | 302            | 14   | 5176 | 5488 | -4.4  | -4.4  | 1008   | 527.7 | Drop 1      | Good              |  |
| 183815 | 29 33   | 77 24   | 88             | 284            | 11.9 | 5375 | 5706 | -2.7  | -5.9  | 1006.3 | 512.3 | ↑           |                   |  |
| 184917 | 29 34   | 76 23   | 90             | 269            | 21.3 | 5610 | 5947 | -3.5  | -8.1  | 1004.2 | 497.6 | Drop 2      | Good              |  |
| 190030 | 29 29   | 75 21   | 93             | 275            | 17.7 | 5608 | 5938 | -3.9  | -8.2  | 1005.4 | 497.9 |             |                   |  |
| 191214 | 29 30.3 | 74 15   | 89             | 282            | 17.3 | 5608 | 5935 | -3.9  | -7.5  | 1004.3 | 497.8 | Drop 3      | Good              |  |
| 192430 | 29 30.3 | 73 07.7 | 91             | 267            | 20.3 | 5608 | 5934 | -3.6  | -14.5 | 1004.2 | 497.7 |             |                   |  |
| 193433 | 29 29   | 72 08   | 92             | 274            | 19   | 5606 | 5931 | -4.3  | -8.3  | 1005.2 | 497.8 | Drop 4      | Good              |  |
| 194845 | 29 30   | 70 47   | 90             | 276            | 18.7 | 5606 | 5928 | -4.4  | -7.8  | 1005.3 | 497.9 |             |                   |  |
| 195725 | 29 29   | 70 00   | 123            | 284            | 15.7 | 5604 | 5927 | -4.2  | -22.6 | 1005.5 | 497.9 | Drop 5      | Good              |  |
| 200645 | 29 00.2 | 69 18.1 | 131            | 273            | 14.7 | 5605 | 5930 | -3.7  | -30.0 | 1005   | 498   |             |                   |  |
| 201528 | 28 31   | 68 43   | 134            | 270            | 10.5 | 5820 | 6164 | -5.4  | -22.2 | 1005.9 | 483.5 | Drop 6      | Good - slow winds |  |
| 202730 | 27 52   | 67 55   | 134            | 277            | 9.9  | 5820 | 6167 | -6.3  | -10.5 | 1007.6 | 483.5 |             |                   |  |
| 203352 | 27 29   | 67 31   | 170            | 298            | 5.2  | 5819 | 6165 | -6.6  | -10.0 | 1008.1 | 483.6 | Drop 7      | Good - Bad Winds  |  |
| 203550 | 27 21   | 67 30   | 180            | 315            | 5.0  | 5819 | 6163 | -6.8  | -9.9  | 1008.4 | 483.7 | Drop 7A     | Good              |  |
| 204715 | 26 27.2 | 67 29.3 | 179            | 340            | 3.3  | 5821 | 6165 | -6.4  | -10.8 | 1007.6 | 483.5 |             |                   |  |
| 205558 | 25 45   | 67 29   | 182            | 29             | 1.9  | 5820 | 6160 | -6.6  | -31.0 | 1009.9 | 483.5 | Drop 8      | Good              |  |
| 2108   | 24 48.2 | 67 29.3 | 178            | <del>298</del> | 0.5  | 5820 | 6166 | -7.2  | -25.4 | 1011.1 | 483.6 |             |                   |  |
| 211811 | 24      | 67 30.5 | 110            | 110            | 8    | 5820 | 6170 | -6.4  | -33.3 | 1009.3 | 483.6 | Drop 9      | Good              |  |
| 214559 | 22 00   | 66 33   | 208            | 94             | 24.5 | 5831 | 6198 | -6.4  | -11.3 | 1007   | 479.7 | Drop 10     | Good              |  |
| 2200   | 22 00   | 69 51   | 269            | 88             | 26.3 | 6455 | 6837 | -11.0 | -13.0 | 1007.0 | 443   |             |                   |  |
| 220445 | 22 04   | 70 59   | 25             | 77             | 24.3 | 6451 | 6835 | -10.5 | -14.3 | 1007   | 443   | Drop 11     | Bad Winds         |  |
| 221434 | 22 14   | 70 55.3 | 26             | 82             | 20.1 | 6453 | 6835 | -10.1 | -23.9 | 1006.7 | 443   | Drop 11A    | Bad Humidity      |  |
| 2227   | 23 05.8 | 70 28.2 | 20             | 74             | 13.2 | 6452 | 6839 | -9.8  | -40.6 | 1006.3 | 443.3 |             |                   |  |
| 223925 | 24      | 70 01   | 2              | 94             | 5    | 6451 | 6840 | -9.5  | -39.9 | 1005.6 | 443   | Drop 12     | Good              |  |
| 225130 | 25      | 70 01   | 0              | 82             | 6.9  | 6451 | 6838 | -10.9 | -37.6 | 1009.6 | 443.2 | ↑ to 22K AA |                   |  |
| 230412 | 26 02.7 | 70 04.3 | 316            | 90             | 6.4  | 6763 | 7170 | -11.5 | -28.5 | 1005   | 424.5 | Drop 13     | Good              |  |
| 232015 | 26 58   | 71 05.6 | 314            | 330            | 5.1  | 6765 | 7179 | -11.2 | -40.8 | 1004.3 | 424.5 |             |                   |  |
| 233437 | 27 44   | 72 01.5 | <del>278</del> | 318            | 12   | 6762 | 7183 | -11.0 | -32.9 | 1004.1 | 424.5 | Drop 14     | Good              |  |
| 2346   | 27 45   | 73 04   | 271            | 311            | 9.9  | 6763 | 7184 | -10.9 | -39.5 | 1004.1 | 424.4 |             |                   |  |
| 235627 | 27 45   | 74 01   | 272            | 310            | 11   | 6764 | 7186 | -10.8 | -40.0 | 1004   | 424.0 | Drop 15     | Good              |  |
| 0009   | 27 45   | 75 09   | 270            | 299            | 12   | 6764 | 7190 | -11.2 | -30.5 | 1005.7 | 424.4 |             |                   |  |
| 001837 | 27 43.2 | 76 01.8 | 255            | 263            | 7.4  | 6765 | 7190 | -10.9 | -29.2 | 1003.8 | 424.4 | Drop 16     | Good              |  |
| 003115 | 27 20.7 | 77 06.1 | 250            | 260            | 6.8  | 6766 | 7187 | -10.7 | -35.9 | 1003.9 | 424.4 |             |                   |  |
| 0042   | 27      | 78      | 245            | 208            | 8.1  | 6765 | 7179 | -11.6 | -28.4 | 1005.0 | 424.4 | Drop 17     | Good              |  |
| 0048   | ↓ to    | km      |                |                |      |      |      |       |       |        |       |             |                   |  |
| 010345 | 26 17   | 79 37   | 238            | 350            | 10.7 | 1944 | 2019 | 15.8  | 16.7  | 1013.5 | 806   |             |                   |  |
| 0128   | 2554.6  | 80 16.5 |                |                |      | 12   |      | 28.4  | 22.3  | 1011.8 |       | Block       |                   |  |

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HURRICANE SYNOPTIC SURVEILLANCE MISSION PLAN: GEORGES

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Prepared by the Hurricane Research Division at 08:51:17 AM on 09/22/98.  
 File: /users/james/field\_prgrm/flight\_tracks/980922ip.ftk

Aircraft: N43RF Altitude: FL180-250 Proposed takeoff: 22/1730Z

=====

DROP LOCATIONS

| #  | LAT   | LON   | TIME |
|----|-------|-------|------|
| 1  | 29 30 | 78 30 | 0:59 |
| 2  | 29 30 | 76 23 | 1:22 |
| 3  | 29 30 | 74 15 | 1:45 |
| 4  | 29 30 | 72 08 | 2:08 |
| 5  | 29 30 | 70 00 | 2:31 |
| 6  | 28 30 | 68 45 | 2:49 |
| 7  | 27 30 | 67 30 | 3:08 |
| 8  | 25 45 | 67 30 | 3:29 |
| 9  | 24 00 | 67 30 | 3:51 |
| 10 | 22 00 | 68 30 | 4:19 |
| 11 | 22 00 | 71 00 | 4:47 |
| 12 | 24 00 | 70 00 | 5:15 |
| 13 | 26 00 | 70 00 | 5:40 |
| 14 | 27 45 | 72 00 | 6:11 |
| 15 | 27 45 | 74 00 | 6:33 |
| 16 | 27 45 | 76 00 | 6:55 |
| 17 | 27 00 | 78 00 | 7:19 |

0120

970

18.8

23/062

19.4

72.1

205/220

22/7012

23/12

20.4

74.3

24/062

21.7

76.5 95 KT

SPM

18.8

70.3

110

WOW 14 MPH

970mb

305 869 1660 For runway lights off

## NOAA • AOC • SED Flight Performance Log

Aircraft : N43RF

Project : Hurricane '98

Mission :

SED Crew: Pelgado, Carpenter, McMillanFlight ID : 9809274Pre-Flight: 0100Take-Off: 0306Landing: 1142

| System |                                           | Pre-Flight            | In-Flight             | Post-Flight            |             |              |
|--------|-------------------------------------------|-----------------------|-----------------------|------------------------|-------------|--------------|
| NAV    | INE #1 <u>1167</u> Aligned to :           | DWC                   |                       | <u>7.6</u>             | <u>-5.2</u> | <u>6</u>     |
|        | INE #2 <u>1167</u> Aligned to :           | DWC                   |                       | <u>7.8</u>             | <u>-2.3</u> | <u>4</u>     |
|        | GPS                                       | DWC                   |                       | Lat                    | Long        | CS           |
| RADAR  | Nose                                      | <u>114</u>            |                       | ✓                      |             |              |
|        | L/F R/T SN: <u>102</u>                    | <u>114</u>            |                       | Mod Switch Off         | ✓           |              |
|        | Tail R/T SN: <u>202123</u>                | <u>114</u>            |                       | Mod Switch Off         | ✓           |              |
| PMS    | MARS Data System                          | Clean DAT? <u>Y</u>   |                       | # DATs : <u>1</u>      |             |              |
|        | 2DG-C Ch 1/64: <u>1</u>                   |                       | <u>200</u>            | ✓                      |             |              |
|        | 2DG-P Ch 1/64: <u>1</u>                   |                       |                       | ✓                      |             |              |
|        | FSSP Ref VDC: <u>5.00</u>                 | See previous          |                       | ✓                      |             |              |
|        | SEA Data System                           | Clean Dat? <u>Y</u>   |                       | # DATs : <u>2</u>      |             |              |
| TEMP   | Cal High                                  | Cal Low               |                       | Cal High               | Cal Low     |              |
|        | Temp #1                                   | <u>30.3</u>           | <u>-30.1</u>          | STM                    | <u>29.0</u> | <u>-30.1</u> |
|        | Temp #2                                   |                       |                       |                        |             |              |
|        | Temp #3                                   |                       |                       |                        |             |              |
|        | Dewpoint #1                               |                       |                       |                        |             |              |
| PRES   | Dewpoint #2                               |                       |                       |                        |             |              |
|        | Attack Angle (AP/DAP)                     |                       |                       | ✓                      |             |              |
|        | Slip Angle (BP/DBP)                       |                       |                       | ✓                      |             |              |
|        | Differential (PQ1/PQ2/PQ3/PQ4)            |                       |                       | ✓                      |             |              |
|        | Absolute (PS1/PS2)                        | STM                   |                       | ✓                      |             |              |
| FLTLVL | Radome Transducers                        | Plugs? <u>✓</u>       |                       | ✓                      |             |              |
|        | Cabin Transducer (Station 5)              | STM                   |                       | ✓                      |             |              |
|        | Apn-159 SN: <u>71-02</u>                  | <u>✓</u>              |                       | Off <u>✓</u>           |             |              |
|        | Apn-232 SN: <u>1797</u>                   | <u>✓</u>              |                       | Off <u>✓</u>           |             |              |
|        | King Liquid Water                         | Broken Use            |                       | ✓                      |             |              |
|        | J&W Liquid Water                          | DWC                   |                       | ✓                      |             |              |
|        | Lyman Alpha Hygrometer                    | Plugs(?) <u>IWOP</u>  |                       | Plugs?: <u>✓</u>       |             |              |
|        | Down PRT-5 (SST)                          | STM                   |                       | ✓                      |             |              |
|        | Side PRT-5 (CO <sub>2</sub> )             | STM                   |                       | ✓                      |             |              |
|        | Up PRT-5                                  | Open? <u>N/I</u>      |                       | Closed <u>✓</u>        |             |              |
| MISC   | RAMS Data System                          | Clean DAT? <u>Y</u>   | <u>DWC</u>            | # DATs : <u>2</u>      |             |              |
|        | F/D Laptop                                | STM                   |                       | Off <u>✓</u>           |             |              |
|        | C.I. Printer                              | STM                   |                       | ✓                      |             |              |
|        | ASDL                                      |                       |                       | Off <u>✓</u>           |             |              |
|        | Exterior Walk Around                      | <u>114</u>            |                       |                        |             |              |
|        | Video (N) (L) (R) (D)                     | STM                   |                       | Lens Covers?: <u>✓</u> |             |              |
|        | AXBT Receivers                            | STM                   |                       |                        |             |              |
|        | AXBT Sonobouys                            | #On Board : <u>6</u>  | # Dropped : <u>5</u>  | # Good : <u>4</u>      |             |              |
|        | AXBT CAD's                                | #On Board : <u>6</u>  | # Fired : <u>5</u>    | #On Board : <u>1</u>   |             |              |
|        | AVAPS                                     |                       |                       | # Tapes :              |             |              |
| USER   | GPS Digital Dropsondes (GD <sup>2</sup> ) | #On Board : <u>48</u> | # Dropped : <u>34</u> | # Good : <u>32</u>     |             |              |
|        | FCU <u>-A-B-C</u>                         | STM                   |                       | UPS Off : ?            |             |              |
|        | HRD Workstation                           |                       |                       | Accelerometers         |             |              |
|        | WARDS                                     | <u>N/I</u>            |                       | #1 (2 G):              |             |              |
|        | AOML Ozone Analyzer                       | <u>N/I</u>            |                       | #2 (2.5 G):            |             |              |
| SFMR   | <u>N/I</u>                                |                       | #3 (3 G):             |                        |             |              |
|        |                                           |                       | #4 (3.5 G):           |                        |             |              |

## POSITION REPORT

## 6. NEXT POSITION

- PILOT INTENTIONS
- WE HAVE
- ENDURANCE REMAINING

[illegible]

OP-30  
78-30

| TERMINAL ERRORS |  | INS 1 | INS 2 |
|-----------------|--|-------|-------|
| DELTA LAT       |  | +3.6  | -4    |
| DELTA LON       |  | +1.1  | -1    |
| RCS             |  | 1     | 1     |
| RADIAL ERROR    |  | 4     | 0     |

|              |
|--------------|
| REMARKS      |
| KOPF V/A M/A |
| VALLEY       |
| 172K 17 +10  |
| 128.6 5750   |
|              |
| 497A         |
| B            |

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