

|                   |                        |                          |
|-------------------|------------------------|--------------------------|
| Flt ID: 020219N   | From: PHNL             | To: PHNL                 |
| Flt No.: 02-030   | Blk In: 0155Z          | ATA: 0151Z               |
| ETD: 2030Z        | Blk Out: 2019Z         | ATD: 2033Z               |
| ETE:              | Blk Time: 5:36 (5.6)   | Flt Time: 5:18 (5.3)     |
| Sponsor Org: NCEP | Program: WINTER STORMS | Purpose: TRACK 34 FLT 10 |

## AOC Personnel

|                         |                      |
|-------------------------|----------------------|
| AC: YATES ✓             | Sys Eng: MCNAMARA    |
| CP: McCANN ✓ / POSTON ✓ | Data Sys: HORN BROOK |
| Nav:                    | Radar:               |
| FE: ROTTEVEEL           | GPS/BT: CARPENTER    |
| Avionics:               | Cld Phys:            |
| FD: DAMIANO ✓           | PARRISH ✓ PM         |

## PARTICIPATING SCIENTISTS/AVISIO/AOC

| Name (Last, First) | Activity on Aircraft | Affiliation |
|--------------------|----------------------|-------------|
| SHAPIRO, M ✓       | OBS                  | NOAA/ETL    |
| WEINBRENNER, D.    | OBS                  | NOAA/NCEP   |
|                    |                      |             |
|                    |                      |             |
|                    |                      |             |
|                    |                      |             |
|                    |                      |             |
|                    |                      |             |
|                    |                      |             |
|                    |                      |             |

## Proposed/Actual Mission/Remarks (Recco, Fixes, Storm, PENET, NHOP #)

DROP #2 got stuck in tube + was punched out manually. MISSED DROP #3  
(no data)  
MADE Drop #4 then decided to abort mission due to possible damage  
to dropsonde door. 3 OBS were sent out

## U.S. Dept. of Commerce/NOAA/Aircraft Operations Center

AOCWF2

|                 |                 |                   |            |                |
|-----------------|-----------------|-------------------|------------|----------------|
| Flt ID: 020219N | Time Off: 2033Z | Time On: 0151Z    |            |                |
|                 | A/C (Take Off)  | Wx Stn (Take Off) | A/C (Land) | Wx Stn (Land)  |
| Pressure        | 1018.0          | 30.076 (1017.5)   | 1014.9     | 29.97 (1014.5) |

|                         | Number | Data Disposition/Date/Quality  |
|-------------------------|--------|--------------------------------|
| Slow/Fast Fit Lvl Tapes | 1      |                                |
| Radar Tapes             |        |                                |
| Cloud Physics Tapes     |        |                                |
| Video Tapes             |        |                                |
|                         |        |                                |
|                         |        |                                |
|                         |        |                                |
| AXBT                    |        |                                |
| AXCP                    |        |                                |
| AXCTD                   |        |                                |
| Dropsondes              | 4      | 3 good; 1 bad; 3 messages sent |
|                         |        |                                |

|          | Forward | Left Side | Right Side | Down | Remarks |
|----------|---------|-----------|------------|------|---------|
| Time On  |         |           |            |      |         |
| Time Off |         |           |            |      |         |
| Rate     |         |           |            |      |         |

Remarks

**Flight ID:** 020219N

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**CONCLUSIONS**

| Time   | Lat  | Long  | Trk | Hdg | Wind Dir | Wind Spd <sup>Mph</sup> | T <sub>a</sub> | T <sub>s</sub> | Press. Alt. | Geo. Alt. | Sic Press.        | Press. Sic | Dyn. Press | Remarks      |
|--------|------|-------|-----|-----|----------|-------------------------|----------------|----------------|-------------|-----------|-------------------|------------|------------|--------------|
| 210500 | 2403 | 15619 | 19  | 7   | 278      | 41                      | -55.7          | -67.1          | 12490       | 13024     | —                 | 175.6      | 89.8       | SET CLD BLW  |
| 212100 | 2559 | 15536 | 19  | 7   | 273      | 41                      | -54.4          | -69.2          | 12488       | 12954     | —                 | 175.5      | 88.2       | BKN CLD BLW  |
| 213700 | 2757 | 15456 | 17  | 7   | 273      | 35                      | -52.6          | -68.3          | 12491       | 12893     | —                 | 175.6      | 88.7       | OVC BLW      |
| 214130 | 2830 | 15445 | 25  | 16  | 271      | 37                      | -52.3          | -68.0          | 12490       | 12873     | —                 | 175.6      | 88.1       | DROP (17)    |
| 215600 | 3013 | 15347 | 26  | 18  | 259      | 34                      | -51.7          | -67.9          | 12495       | 12828     | —                 | 175.7      | 88.7       | BKN CLD      |
| 215641 | 3045 | 15330 |     |     |          |                         |                |                |             |           | Gst stuck in tube |            |            | DROP NO WIND |
| 223000 | 3435 | 15300 | 0   | 348 | 257      | 47                      | -49.1          | -66.7          | 12494       | 12619     | —                 | 175.9      | 88.4       | SET CB       |
| 223612 | 3515 | 15300 | 0   | 347 | 259      | 47                      | -49.6          | -66.4          | 12489       | 12567     | —                 | 176.0      | 87.6       | DROP (20)    |
| 225240 | 3730 | 15300 | 331 | 318 | 251      | 47                      | -47.6          | -65.8          | 12489       | 12410     | —                 | 175.8      |            | DROP (35)    |
| 232600 | 3657 | 15415 | 180 | 189 | 251      | 48                      | -46.5          | -63.0          | 12497       | 12480     | —                 | 176.1      | 95.9       | BKN CB       |
| 235100 | 3353 | 15415 | 180 | 188 | 255      | 42                      | -48.2          | -64.9          | 12498       | 12642     | —                 | 176.2      | 92.3       | BKN CB       |
| 003200 | 2853 | 15438 | 197 | 203 | 271      | 34                      | -51.6          | -66.5          | 12498       | 12868     | —                 | 176.3      | 95.6       | OVC CFB      |
| 003517 | 2830 | 15445 | 197 | 203 | 272      | 33                      | -51.7          | -66.5          | 12498       | 12883     | —                 | 176.3      | 96.4       | OVRR DRP PT  |
| 010900 | 2437 | 15614 | 194 | 202 | 265      | 42                      | -53.3          | -67.6          | 12501       | 12994     | —                 | 176.2      | 96.1       | SET CB       |

Flight ID 020219N

**Flight Director,**

DAMIANO

Page 7 of 11Mission ID WSWSCStorm TRAC34C[illegible]

# N49RF AVAPS DropSonde Log

N49RF Project: Winter Storms Flight ID 020219N

Mission: HNL → HNL Flight #: 10 System Status: OK

| Drop # | Sonde Serial Number | Chn. # | Time (Zulu) | Press. offset | Winds time | Operator Initials | Comments / Drop Status/ Failure Reason                 | GOOD <input checked="" type="checkbox"/> |
|--------|---------------------|--------|-------------|---------------|------------|-------------------|--------------------------------------------------------|------------------------------------------|
| 1      | 003 438 035         | 1      | 2141        | .5            | 17         | DWC               | OK                                                     | ✓                                        |
| 2      | 003 248 095         | 1      | 2200        | .8            | —          | 1                 | Spring on door broke - sonde did not launch - no winds |                                          |
| 3      | 003 438 036         | 1      | 2236        | 0             | 20         | 1                 | Launch door did not open at first                      | ✓                                        |
| 4      | 003 148 010         | 2      | 2252        | .3            | 36         | ✓                 | Sonde went out on 3rd try                              | ✓                                        |
| 5      | 003 148 015         | 1      |             | 0             |            |                   |                                                        |                                          |
| 6      | 003 148 016         |        |             |               |            |                   |                                                        |                                          |
| 7      | 003 825 034         |        |             |               |            |                   |                                                        |                                          |
| 8      | 003 825 093         |        |             |               |            |                   |                                                        |                                          |
| 9      | 003 825 091         |        |             |               |            |                   |                                                        |                                          |
| 10     | 003 148 011         |        |             |               |            |                   |                                                        |                                          |
| 11     | 003 825 119         |        |             |               |            |                   |                                                        |                                          |
| 12     | 003 825 120         |        |             |               |            |                   |                                                        |                                          |
| 13     | 003 148 020         |        |             |               |            |                   |                                                        |                                          |
| 14     | 003 148 012         |        |             |               |            |                   |                                                        |                                          |
| 15     | 003 825 031         |        |             |               |            |                   |                                                        |                                          |
| 16     |                     |        |             |               |            |                   |                                                        |                                          |
| 17     |                     |        |             |               |            |                   |                                                        |                                          |
| 18     |                     |        |             |               |            |                   |                                                        |                                          |
| 19     |                     |        |             |               |            |                   |                                                        |                                          |
| 20     |                     |        |             |               |            |                   |                                                        |                                          |
| 21     |                     |        |             |               |            |                   |                                                        |                                          |
| 22     |                     |        |             |               |            |                   |                                                        |                                          |
| 23     |                     |        |             |               |            |                   |                                                        |                                          |
| 24     |                     |        |             |               |            |                   |                                                        |                                          |
| 25     |                     |        |             |               |            |                   |                                                        |                                          |
| 26     |                     |        |             |               |            |                   |                                                        |                                          |
| 27     |                     |        |             |               |            |                   |                                                        |                                          |
| 28     |                     |        |             |               |            |                   |                                                        |                                          |
| 29     |                     |        |             |               |            |                   |                                                        |                                          |
| 30     |                     |        |             |               |            |                   |                                                        |                                          |
| 31     |                     |        |             |               |            |                   |                                                        |                                          |
| 32     |                     |        |             |               |            |                   |                                                        |                                          |
| 33     |                     |        |             |               |            |                   |                                                        |                                          |

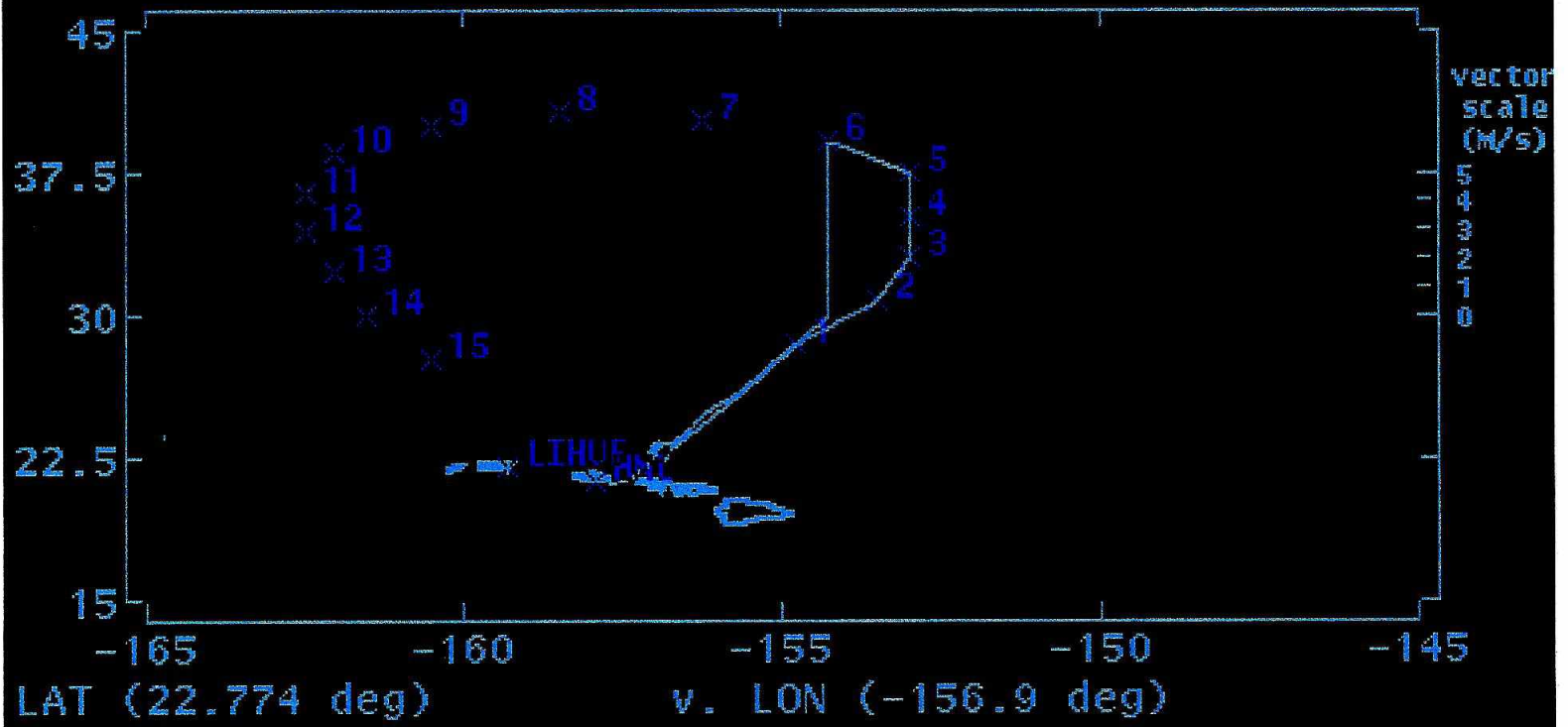
February 19, 2002  
Winter Storms Reconnaissance Track 34 CC (Counter Clockwise)

|       |          |           |
|-------|----------|-----------|
| PHNL  | 21 19.0N | 157 55.6W |
| MAGGI | 21 50.4N | 156 57.9W |
| TOADS | 22 46.2N | 156 41.8W |
| APACK | 24 02.6N | 156 19.2W |

|      |         |        |         |                       |
|------|---------|--------|---------|-----------------------|
| 1014 | Drop 1  | 28 30N | 154 45W | First Drop            |
| 1013 | Drop 2  | 30 45N | 153 30W | BAD!!! <i>no data</i> |
| 1010 | Drop 3  | 33 00N | 153 00W | <i>did not drop</i>   |
| 1005 | Drop 4  | 35 15N | 153 00W |                       |
| 1000 | Drop 5  | 37 30N | 153 00W |                       |
| 998  | Drop 6  | 39 15N | 154 15W |                       |
| 999  | Drop 7  | 40 15N | 156 15W |                       |
| 1001 | Drop 8  | 40 45N | 158 30W |                       |
| 1003 | Drop 9  | 40 00N | 160 30W |                       |
| 1006 | Drop 10 | 38 30N | 162 00W |                       |
| 1009 | Drop 11 | 36 30N | 162 30W |                       |
| 1013 | Drop 12 | 34 30N | 162 30W |                       |
| 1016 | Drop 13 | 32 15N | 162 00W |                       |
| 1017 | Drop 14 | 30 00N | 161 30W |                       |
| 1018 | Drop 15 | 27 45N | 160 30W | Last Drop             |

|      |          |           |
|------|----------|-----------|
| PHNL | 21 19.0N | 157 55.6W |
|------|----------|-----------|

20:36:56 to 01:24:29



## NOAA/AOC/SED N49RF Flight Performance log

N49RF Project: WS2002 Project No. 201 Flight No. RF10 Flight ID: 021902NSED Crew: Carpenter, Hornbost, McNamara Mission: \_\_\_\_\_Pre-Flight: 1930 Z Take-Off: 2032 Z Landing: 0150 Z

| SYSTEM                                                   |                                                           |                                                                    | Pre-Flight Check                                                                      | In-Flight                                              | Post-Flight Check                                      |         |
|----------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------|---------|
| N<br>A<br>V                                              | IRS #1                                                    |                                                                    | cfl<br>↓                                                                              |                                                        |                                                        |         |
|                                                          | IRS #2                                                    |                                                                    |                                                                                       |                                                        |                                                        |         |
|                                                          | GPS Honeywell #1                                          |                                                                    |                                                                                       |                                                        |                                                        |         |
|                                                          | GPS Honeywell #2                                          |                                                                    |                                                                                       |                                                        |                                                        |         |
|                                                          | GPS Collins                                               |                                                                    |                                                                                       |                                                        | Off? <input type="checkbox"/>                          |         |
| Nose Radar - Collins                                     |                                                           |                                                                    |                                                                                       | Off? <input type="checkbox"/>                          |                                                        |         |
| T<br>E<br>M<br>P<br>/<br>D<br>P                          | Time                                                      | Temp °C                                                            | cfl<br>↓                                                                              |                                                        | Time                                                   | Temp °C |
|                                                          | Temp #1                                                   | 1944 27.6                                                          |                                                                                       |                                                        |                                                        |         |
|                                                          | Temp #2                                                   | 35.6                                                               |                                                                                       |                                                        |                                                        |         |
|                                                          | Temp #3                                                   | 27.5                                                               |                                                                                       |                                                        |                                                        |         |
|                                                          | Temp #4                                                   | 39.8                                                               |                                                                                       |                                                        |                                                        |         |
|                                                          | DP Left                                                   | 16.5                                                               |                                                                                       | Cal. Time:                                             |                                                        |         |
|                                                          | DP Right                                                  | 21.9                                                               |                                                                                       | Cal. Time:                                             |                                                        |         |
| CRYO                                                     |                                                           | ↓                                                                  |                                                                                       |                                                        |                                                        |         |
| P<br>R<br>E<br>S<br>S                                    | Attack Angle (ADCAOA)                                     |                                                                    | cfl<br>↓                                                                              |                                                        |                                                        |         |
|                                                          | Angle of Attack (APx, DAPx)                               |                                                                    |                                                                                       |                                                        |                                                        |         |
|                                                          | Sideslip (BPx, DBPx)                                      |                                                                    |                                                                                       |                                                        |                                                        |         |
|                                                          | Static Pressure (PS1M, PS2M)                              |                                                                    |                                                                                       |                                                        |                                                        |         |
|                                                          | Dynamic Pressure (QCxM)                                   |                                                                    |                                                                                       |                                                        |                                                        |         |
| Radome Press. Lines                                      |                                                           | Checked? <input checked="" type="checkbox"/> Date: <u>11/20/02</u> |                                                                                       |                                                        |                                                        |         |
| S<br>Y<br>S<br>T<br>E<br>M                               | SATCOM (Flight Phone) <input checked="" type="checkbox"/> |                                                                    |                                                                                       |                                                        | Off CB? <input checked="" type="checkbox"/>            |         |
|                                                          | Call COMSAT? <input type="checkbox"/> (*292#)             |                                                                    | CB's Checked? <input checked="" type="checkbox"/>                                     |                                                        |                                                        |         |
|                                                          | Iridium Phone                                             |                                                                    | ON? <input type="checkbox"/>                                                          |                                                        | OFF? <input checked="" type="checkbox"/>               |         |
|                                                          | FCU/UPS/CB                                                |                                                                    |                                                                                       |                                                        | UPS off? <input type="checkbox"/>                      |         |
|                                                          | MADS (WINDS/DISCWIN)                                      |                                                                    |                                                                                       |                                                        | # DATs: <u>1</u>                                       |         |
|                                                          | Printer 1 (lp1)                                           |                                                                    | Power? <input checked="" type="checkbox"/> Paper? <input checked="" type="checkbox"/> |                                                        | Printer Power off? <input checked="" type="checkbox"/> |         |
|                                                          | MADS Cal. Date:                                           |                                                                    | QC time: <u>2015</u>                                                                  |                                                        | QC time: <u>0151</u>                                   |         |
|                                                          | HAPS System                                               |                                                                    | Time set? <input checked="" type="checkbox"/> <u>21/11</u>                            |                                                        | # Msg.: # Fail:                                        |         |
| AVAPS System                                             |                                                           | <u>22</u>                                                          |                                                                                       |                                                        |                                                        |         |
| Exterior Walk Around <input checked="" type="checkbox"/> |                                                           |                                                                    |                                                                                       |                                                        |                                                        |         |
| Inspect Drop Sonde Chute Bolts                           |                                                           | <u>0218m</u>                                                       |                                                                                       |                                                        |                                                        |         |
| M<br>I<br>S<br>C                                         | Down Port Door (Ozone Inst.)                              |                                                                    | Cover OFF? <input checked="" type="checkbox"/> <u>LM</u>                              |                                                        | Cover ON? <input checked="" type="checkbox"/>          |         |
|                                                          | AVAPS Sondes                                              |                                                                    | # On Board: <u>77</u>                                                                 | # Dropped:                                             | # Good:                                                |         |
|                                                          | Sci. Power Monitor                                        |                                                                    |                                                                                       |                                                        |                                                        |         |
|                                                          | APN-232 Altimeter                                         |                                                                    |                                                                                       |                                                        |                                                        |         |
|                                                          | Modem                                                     |                                                                    | Power On? <input checked="" type="checkbox"/>                                         |                                                        |                                                        |         |
|                                                          | Additional Instrumentation:                               |                                                                    | L1 60Hz IP CB ON? <input checked="" type="checkbox"/>                                 | After Take Off                                         | L1 60Hz IP CB OFF? <input checked="" type="checkbox"/> |         |
|                                                          | AL Ozone Data System                                      |                                                                    | L1 400Hz CB ON? <input checked="" type="checkbox"/>                                   | L1 Pump Switch ON? <input checked="" type="checkbox"/> | L1 400Hz CB OFF? <input checked="" type="checkbox"/>   |         |
|                                                          |                                                           | Computer ON? <input checked="" type="checkbox"/>                   |                                                                                       | Computer OFF? <input checked="" type="checkbox"/>      |                                                        |         |
| Crew Responsibilities Assigned                           |                                                           | <u>✓</u>                                                           |                                                                                       |                                                        |                                                        |         |

|   |             |                 |                  |                  |
|---|-------------|-----------------|------------------|------------------|
| 1 | DAT Tape #1 | On: <u>2014</u> | Type: <u>60m</u> | Off: <u>0155</u> |
|   | Comments:   |                 |                  |                  |
|   |             |                 |                  |                  |
|   |             |                 |                  |                  |
|   |             |                 |                  |                  |

[illegible]