

|                   |                        |                          |
|-------------------|------------------------|--------------------------|
| Flt ID: 020318N   | From: PHNL             | To: PHNL                 |
| Flt No.: 02-38    | Blk In: 0253Z          | ATA: 0251Z               |
| ETD: 2000Z        | Blk Out: 1956Z         | ATD: 2008Z               |
| ETE:              | Blk Time: 6:57 (7.0)   | Flt Time: 6:43 (6.7)     |
| Sponsor Org: NCEP | Program: WINTER STORMS | Purpose: TRACK 36 FLT 18 |

## AOC Personnel

|                 |                     |
|-----------------|---------------------|
| AC: McCANN      | Sys Eng: GOLDSTEIN  |
| CP: YATES/FINKE | Data Sys: CARPENTER |
| Nav:            | Radar:              |
| FE:             | GPS/BT: SANS SOULT  |
| Avionics:       | Cld Phys:           |
| FD: DAMIANO     | CZYBYK PM           |

## PARTICIPATING STATION VISITS/AOC

| Name (Last, First) | Activity on Aircraft | Affiliation   |
|--------------------|----------------------|---------------|
| ESTEBAN, M.        | OBS                  | UH            |
| REYES-FIGUEROA, A. | OBS                  | UH            |
| LEONE, D.          | MEDIA                | STAR BULLETIN |
| MORRIS, F.         | MEDIA                | STAR BULLETIN |
|                    |                      |               |
|                    |                      |               |
|                    |                      |               |
|                    |                      |               |
|                    |                      |               |
|                    |                      |               |

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

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

ACGWEZ

|                 |                 |                   |            |               |
|-----------------|-----------------|-------------------|------------|---------------|
| Flt ID: 020318N | Time Off: 2008Z | Time On: 0251Z    |            |               |
|                 | A/C (Take Off)  | Wx Stn (Take Off) | A/C (Land) | Wx Stn (Land) |
| Pressure        | 1020.2          | 30.13             | 1017.8     |               |

|                         | Number | Data Disposition/Date/Quality    |
|-------------------------|--------|----------------------------------|
| Slow/Fast Flt Lvl Tapes | /      |                                  |
| Radar Tapes             |        |                                  |
| Cloud Physics Tapes     |        |                                  |
| Video Tapes             |        |                                  |
|                         |        |                                  |
|                         |        |                                  |
|                         |        |                                  |
| AXBT                    |        |                                  |
| AXCP                    |        |                                  |
| AXCTD                   |        |                                  |
| Dropsondes              | 17     | 15 good; 2 bad; 16 messages sent |

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

Remarks



**Flight ID:**

020318N

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

**1. INTRODUCTION**

| Time   | Lat  | Long  | Trk | Hdg | Wind Dir | Wind Spd | T <sub>a</sub> | T <sub>s</sub> | Press. Alt. | Geo. Alt. | Slc Press. | Press. Slc | Dyn. Press | Remarks         |
|--------|------|-------|-----|-----|----------|----------|----------------|----------------|-------------|-----------|------------|------------|------------|-----------------|
| 211300 | 2605 | 15119 | 38  | 28  | 282      | 38       | -65.9          | -76.1          | 12484       | 12781     | —          | 175.9      | 82.9       | SC T 5c         |
| 211921 | 2645 | 15045 | 45  | 37  | 269      | 42       | -63.9          | -76.0          | 12487       | 12767     | —          | 175.9      | 87.3       | DROP (37)       |
| 213715 | 2815 | 14830 | 52  | 44  | 267      | 45       | -60.5          | -74.2          | 12500       | 12716     | —          | 176.0      | 91.5       | DROP (6)        |
| 215630 | 2956 | 14609 | 50  | 47  | 242      | 30       | -61.0          | -72.1          | 12492       | 12657     | —          | 175.9      | 88.0       | DROP (23)       |
| 221355 | 3130 | 14400 | 31  | 22  | 259      | 38       | -55.5          | -71.9          | 13057       | 13194     | —          | 159.6      | 80.1       | FRONT DROP (12) |
| 223142 | 3345 | 14318 |     |     |          |          |                |                | 13 AD       | (FF)      | —          | —          | —          | DROP            |
| 223318 | 3357 | 14319 | 356 | 350 | 243      | 20       | -57.5          | -70.9          | 13047       | 13164     | —          | 159.5      | 80.6       | DROP (15)       |
| 224902 | 3600 | 14330 | 351 | 345 | 218      | 22       | -56.8          | -70.9          | 13047       | 13119     | —          | 159.5      | 81.1       | DROP (27)       |
| 230654 | 3815 | 14415 | 334 | 328 | 215      | 21       | -56.3          | -70.8          | 13047       | 13091     | —          | 159.5      | 80.6       | DROP (11)       |
| 231600 | 3909 | 14508 | 322 | 317 | 222      | 17       | -54.5          | -70.3          | 13047       | 13049     | —          | 159.5      | 79.5       | ONE CIR         |
| 232440 | 4000 | 14600 | 295 | 289 | 220      | 16       | -53.3          | -69.1          | 13047       | 13032     | —          | 159.5      | 81.0       | DROP (26)       |
| 234043 | 4000 | 14830 | 266 | 264 | 230      | 12       | -51.6          | -67.8          | 13045       | 13012     | —          | 159.5      | 79.7       | DROP (37)       |
| 235701 | 3945 | 15100 | 250 | 249 | 266      | 12       | -50.0          | -66.3          | 13045       | 12997     | —          | 159.5      | 77.2       | DROP (8)        |
| 001232 | 3845 | 15300 | 223 | 225 | 273      | 17       | -49.7          | -66.6          | 13046       | 13008     | —          | 159.7      | 81.2       | DROP (25)       |
| 002903 | 3700 | 15415 | 206 | 209 | 275      | 20       | -51.3          | -66.5          | 13047       | 13039     | —          | 159.7      | 79.9       | DROP (30)       |
| 004643 | 3500 | 15515 | 200 | 206 | 266      | 29       | -53.6          | -66.9          | 13052       | 13099     | —          | 159.7      | 80.8       | DROP (83) BAD   |
| 010403 | 3300 | 15600 |     |     |          |          |                |                |             |           |            |            |            | DROP            |
| 012201 | 3045 | 15630 | 191 | 198 | 291      | 35       | -57.0          | -70.3          | 13060       | 13254     | —          | 159.7      | 77.8       | DROP (26)       |
| 014028 | 2830 | 15700 | 183 | 191 | 282      | 38       | -57.8          | -70.6          | 13054       | 13323     | —          | 159.7      | 79.0       | DROP (24)       |
| 021000 | 2440 | 15638 | 194 | 202 | 263      | 42       | -61.3          | -71.4          | 13068       | 13464     | —          | 159.8      | 96.0       | BKN-SC T 5c     |



# N49RF AVAPS DropSonde Log

N49RF Project: Winter Storms 2002 Flight ID 020318N

Mission: HNL → HNL Flight #: 18 System Status: OK

| Drop # | Sonde Serial Number | Chn. # | Time (Zulu) | Press. offset | Winds time | Operator Initials | Comments / Drop Status / Failure Reason | OOD <input checked="" type="checkbox"/> |
|--------|---------------------|--------|-------------|---------------|------------|-------------------|-----------------------------------------|-----------------------------------------|
| 1      | 003 248 027         | 1      | 2119        | .4            | 37         | DWC               | OK                                      | ✓                                       |
| 2      | 003 515 103         | 1      | 2137        | .2            | 6          |                   |                                         | ✓                                       |
| 3      | 003 515 102         | 1      | 2156        | .2            | 23         |                   |                                         | ✓                                       |
| 4      | 003 475 072         | 1      | 2213        | 0             | 12         |                   |                                         | ✓                                       |
| 5      | 003 515 098         | 1      | 2232        | 0             |            |                   | No winds                                |                                         |
| 6      | 003 515 095         | 2      | 2233        | 0             | 15         | ↓                 | Backup for drop #5                      | ✓                                       |
| 7      | 003 475 017         | 1      | 2249        | .2            | 27         | DSS               |                                         | ✓                                       |
| 8      | 003 338 110         | 2      | 2206        | .5            | 11         |                   |                                         | ✓                                       |
| 9      | 003 338 098         | 1      | 2324        | .2            | 26         |                   |                                         | ✓                                       |
| 10     | 003 515 097         | 2      | 2340        | .2            | 37         |                   |                                         | ✓                                       |
| 11     | 003 475 015         | 1      | 2357        | .3            | 8          | ↓                 |                                         | ✓                                       |
| 12     | 003 438 044         | 2      | 0012        | .3            | 25         | ASG               |                                         | ✓                                       |
| 13     | 003 475 019         | 1      | 0029        | .3            | 30         |                   |                                         | ✓                                       |
| 14     | 003 515 093         | 1      | 0046        | 0             | 83         |                   | LATE WINDS, WEAK TELLER, DIED EARLY     |                                         |
| 15     | 003 515 105         | 1      | 0104        | .2            | 28         |                   |                                         | ✓                                       |
| 16     | 003 475 073         | 1      | 0122        | 0             | 26         |                   |                                         |                                         |
| 17     | 003 475 010         | 1      | 0140        | 0             | 24         |                   |                                         |                                         |
| 18     |                     |        |             | .5            |            |                   |                                         |                                         |
| 19     |                     |        |             |               |            |                   |                                         |                                         |
| 20     |                     |        |             |               |            |                   |                                         |                                         |
| 21     |                     |        |             |               |            |                   |                                         |                                         |
| 22     |                     |        |             |               |            |                   |                                         |                                         |
| 23     |                     |        |             |               |            |                   |                                         |                                         |
| 24     |                     |        |             |               |            |                   |                                         |                                         |
| 25     |                     |        |             |               |            |                   |                                         |                                         |
| 26     |                     |        |             |               |            |                   |                                         |                                         |
| 27     |                     |        |             |               |            |                   |                                         |                                         |
| 28     |                     |        |             |               |            |                   |                                         |                                         |
| 29     |                     |        |             |               |            |                   |                                         |                                         |
| 30     |                     |        |             |               |            |                   |                                         |                                         |
| 31     |                     |        |             |               |            |                   |                                         |                                         |
| 32     |                     |        |             |               |            |                   |                                         |                                         |
| 33     |                     |        |             |               |            |                   |                                         |                                         |

FIRMWARE CHANGE - GPS WARMUP SHOULD TIME POWER-ON, NOT XMITTING



# N49RF AOC GPS Dropwindsonde Log

Flight ID O 20318N

Flight Director DAVID AND

Page 1 of 1

Mission ID W5W5C

Storm TRAC 36cc

| Drop # | Chart #<br>(Sonde ID) | Time<br>(UTC) | Lat<br>(°N) | Lon<br>(°W) | Sfc<br>Pres mb | WX<br>Cond. | Comments    | OB # | SatComm<br>Failures | Sent<br>Time |
|--------|-----------------------|---------------|-------------|-------------|----------------|-------------|-------------|------|---------------------|--------------|
| 1      | 003475018             | 214921        | 2845        | 15045       | 1021.8         | SC T SC     | 214909      | 1    | —                   | 2150         |
| 2      | 003515013             | 213715        | 2815        | 14830       | 1019.8         | SC T SC     | 220447      | 2    | —                   | 2210         |
| 3      | 003515012             | 215638        | 2956        | 14609       | 1016.6         | OVC c/c/c   | 221429      | 3    | —                   | 2219         |
| 4      | 003475012             | 221355        | 3130        | 14400       | 1012.6         | OVC c/c/c   | 223618      | 4    | —                   | 2241         |
| 5      | 003515018             | 223142        | 3240        | 14317       | —              | OVC c/c/c   | 230522      | 5    | —                   | 2255         |
| 6      | 003515015             | 223318        | 3359        | 14319       | 1013.9         | OVC c/c/c   | 230522      | 6    | —                   | 2310         |
| 7      | 003475017             | 224902        | 3600        | 14380       | 1013.4         | OVC c/c/c   | 230522      | 7    | —                   | 2330         |
| 8      | 003338110             | 230654        | 3815        | 14415       | 1013.3         | OVC c/c/c   | 232524      | 8    | —                   | 2353         |
| 9      | 003338098             | 232446        | 4000        | 14600       | 1010.3         | OVC c/c/c   | 234804      | 9    | —                   | 0008         |
| 10     | 003515017             | 234043        | 4000        | 14830       | 1005.7         | OVC c/c/c   | 000415 (MP) | 10   | —                   | 0020         |
| 11     | 003475015             | 234901        | 3845        | 15100       | 1009.4         | OVC c/c/c   | 003118      | 11   | —                   | 0036         |
| 12     | 003475019             | 001232        | 3845        | 15300       | 1009.4         | OVC c/c/c   | 003118      | 12   | —                   | 0053         |
| 13     | 003475019             | 002903        | 3700        | 15415       | 1012.1         | OVC c/c/c   | 003118      | 13   | —                   | 0110         |
| 14     | 003515013             | 004643        | 3500        | 15515       | —              | OVC c/c/c   | 012339      | 14   | —                   | 0129         |
| 15     | 003475018             | 010403        | 3045        | 15630       | 1024.1         | SC T SC     | 014225      | 15   | —                   | 0148         |
| 16     | 003475018             | 014028        | 2850        | 15700       | 1024.0         | SC T SC     | 015904      | 16   | —                   | 0205         |



March 18, 2002

NOAA49 Winter Storms Reconnaissance Modified Track 36 CC (Counter Clockwise)

PHNL 21 19.0N 157 55.6W  
CLUTS 23 00.2N 154 39.3W  
CLURE 23 55.0N 153 08.2W

|         |                   |                    |                    |      |
|---------|-------------------|--------------------|--------------------|------|
| Drop 1  | <del>26 45N</del> | <del>150 45W</del> | Turn 1, First Drop | 1022 |
| Drop 2  | <del>28 15N</del> | <del>148 30W</del> |                    | 1021 |
| Drop 3  | <del>29 56N</del> | <del>146 09W</del> | Turn 2             | 1020 |
| Drop 4  | <del>31 30N</del> | <del>144 09W</del> | Turn 3             | 1018 |
| Drop 5  | <del>33 40N</del> | <del>143 17W</del> | Turn 4             | 1017 |
| Drop 6  | <del>36 00N</del> | <del>143 30W</del> |                    | 1016 |
| Drop 7  | <del>38 15N</del> | <del>144 15W</del> | Turn 5             | 1013 |
| Drop 8  | <del>40 00N</del> | <del>146 00W</del> | Turn 6             | 1008 |
| Drop 9  | <del>40 00N</del> | <del>148 30W</del> |                    | 1002 |
| Drop 10 | <del>39 45N</del> | <del>151 00W</del> | Turn 7             | 1006 |
| Drop 11 | <del>38 45N</del> | <del>153 00W</del> | Turn 8             | 1015 |
| Drop 12 | <del>37 00N</del> | <del>154 15W</del> |                    | 1017 |
| Drop 13 | <del>35 00N</del> | <del>155 15W</del> |                    | 1020 |
| Drop 14 | <del>33 00N</del> | <del>156 00W</del> |                    | 1022 |
| Drop 15 | <del>30 45N</del> | <del>156 30W</del> | Turn 9             | 1024 |
| Drop 16 | <del>28 30N</del> | <del>157 00W</del> | Turn 10 Last Drop  | 1025 |

APACK 24 02.6N 156 19.2W  
PHNL 21 19.0N 157 55.6W

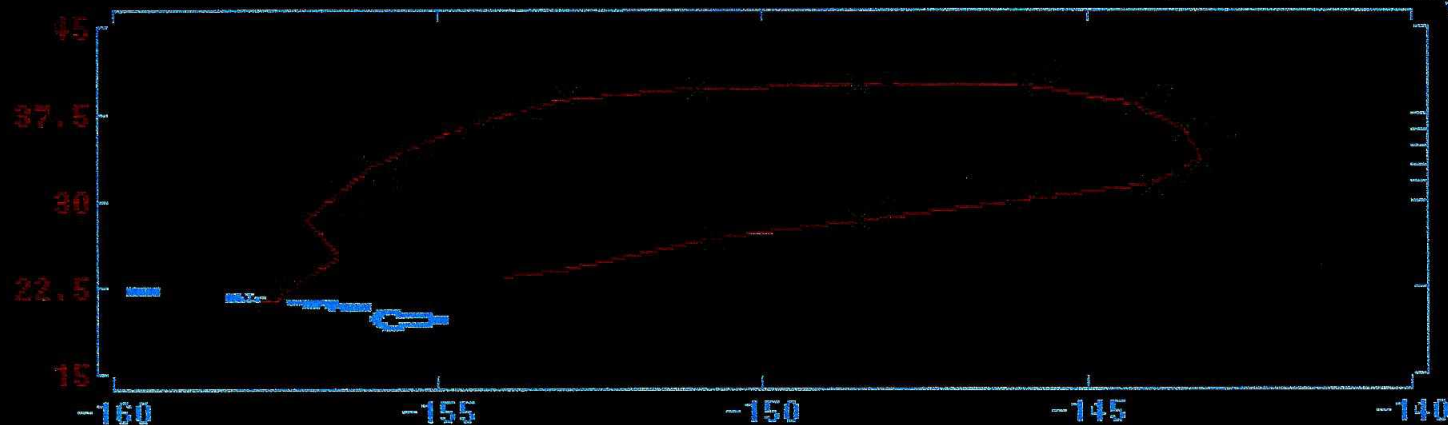
20:45:26 TO 02:40:58

VEL TO

scale

(M/s)

0 4 8 12 16

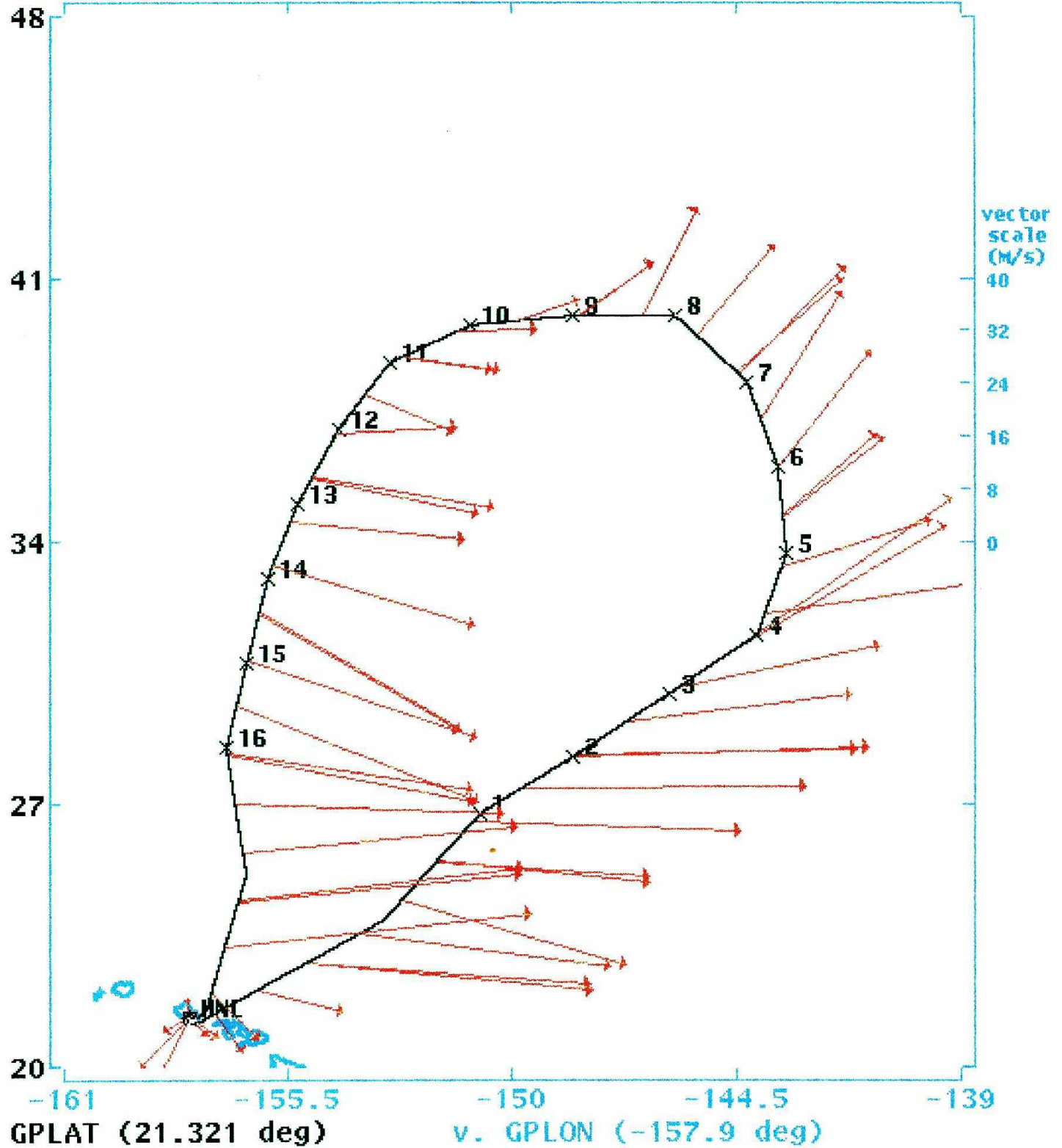


LAT (21.293 deg)

V. LON (-157.7 deg)

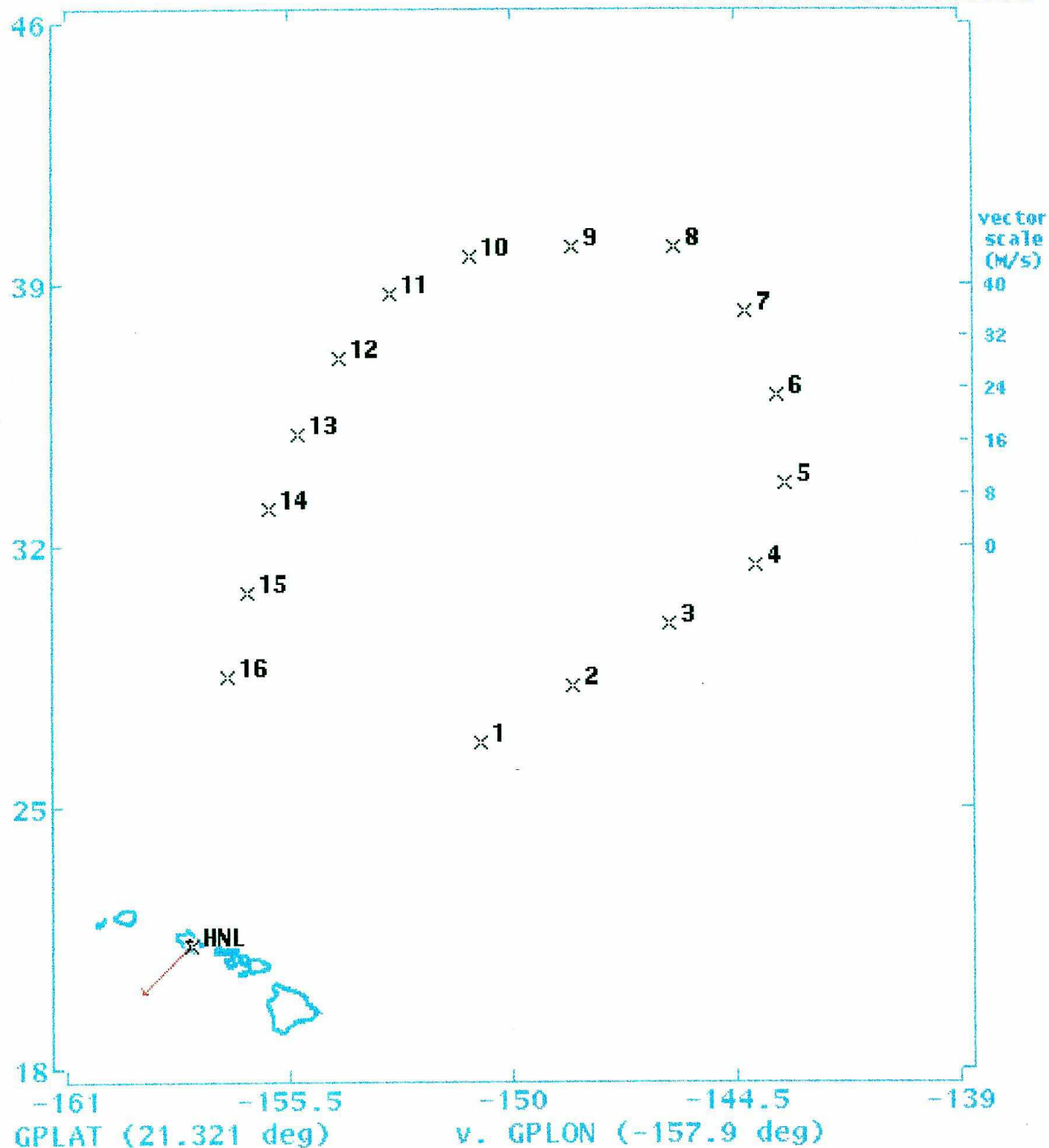
3/18/02

'Std-Flight-Track' (ads@L3) Proj 201 Flt rf18 Mar-20-102 02:19:35:53 to 02:55:34



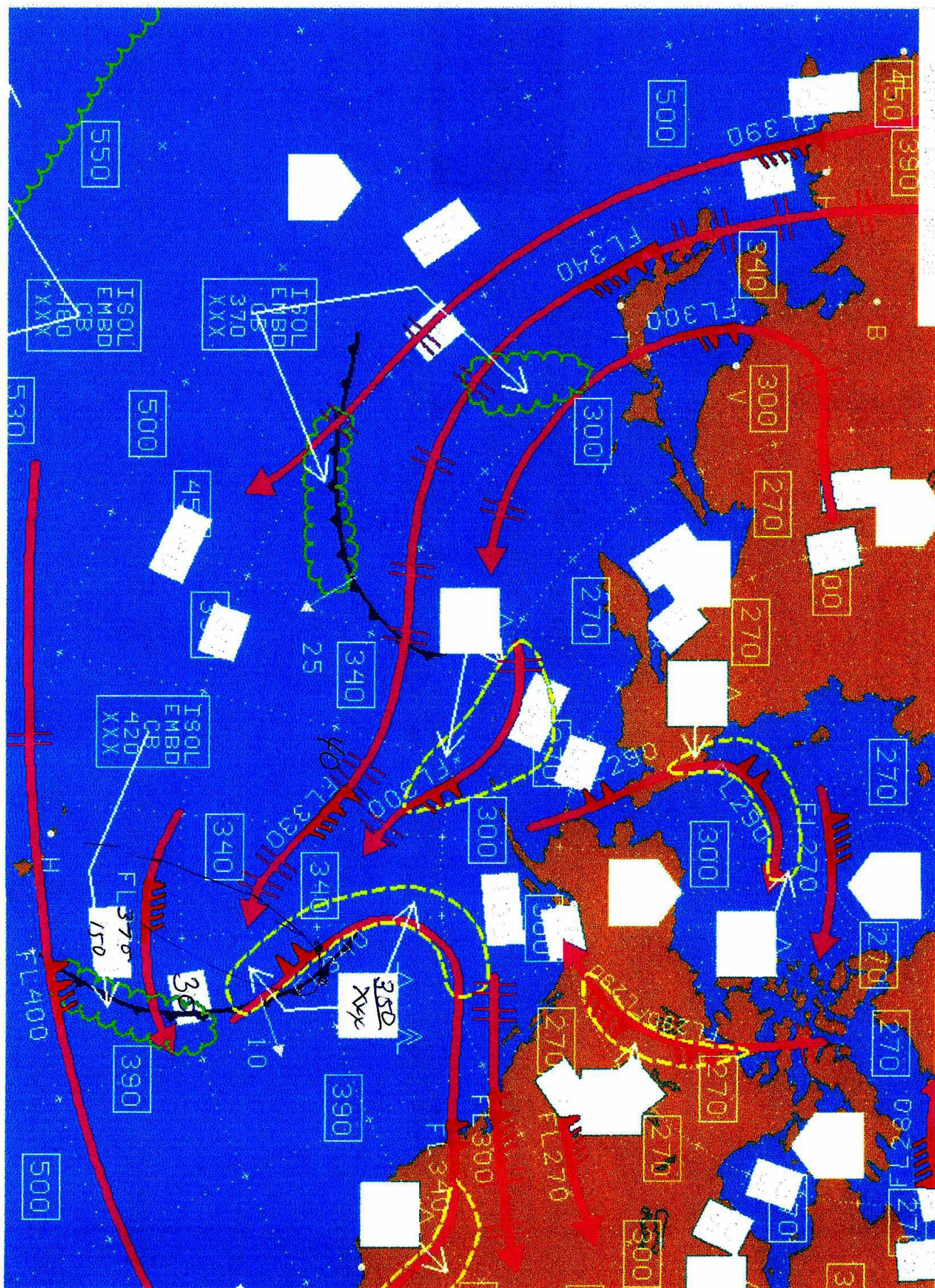


'Std-Flight-Track' (ads@R3) Proj. 201 Flt rf18 03/19/02 19:56  
19:35:53 to 19:56:50





VASD 3/19/02 0622





## NOAA/AOC/SED N49RF Flight Performance log

N49RF Project: WS2002 Project No. 201 Flight No. RF18 Flight ID: 020318N  
 SED Crew: ASG, SANS SDOUCI, CARPENTER Mission: PHNL → PHNL  
 Pre-Flight: 1915Z Z Take-Off: 2007 Z Landing: 0250 Z

| SYSTEM                                                   |                                                           |             |                                                                   | Pre-Flight Check                                                                      | In-Flight                                              | Post-Flight Check                                                 |             |
|----------------------------------------------------------|-----------------------------------------------------------|-------------|-------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------------------------------------------------|-------------------------------------------------------------------|-------------|
| N<br>A<br>V                                              | IRS #1                                                    |             |                                                                   | <u>all</u>                                                                            | ✓                                                      |                                                                   |             |
|                                                          | IRS #2                                                    |             |                                                                   | ↓                                                                                     | ✓                                                      |                                                                   |             |
|                                                          | GPS Honeywell #1                                          |             |                                                                   |                                                                                       | ✓                                                      |                                                                   |             |
|                                                          | GPS Honeywell #2                                          |             |                                                                   |                                                                                       | ✓                                                      |                                                                   |             |
|                                                          | GPS Collins                                               |             |                                                                   | ↓                                                                                     | ✓                                                      | Off? <input checked="" type="checkbox"/> <u>088</u>               |             |
| Nose Radar - Collins                                     |                                                           |             |                                                                   |                                                                                       | Off? <input checked="" type="checkbox"/> <u>088</u>    |                                                                   |             |
| T<br>E<br>M<br>P<br>/<br>D<br>P                          | Time                                                      | Temp °C     |                                                                   |                                                                                       |                                                        | Time                                                              | Temp °C     |
|                                                          | Temp #1                                                   | <u>1937</u> | <u>21.5</u>                                                       | <u>all</u>                                                                            | ✓                                                      | <u>0253</u>                                                       | <u>21.9</u> |
|                                                          | Temp #2                                                   |             | <u>22.0</u>                                                       | ↓                                                                                     | ✓                                                      | ↓                                                                 | <u>22.1</u> |
|                                                          | Temp #3                                                   |             | <u>21.7</u>                                                       | ↓                                                                                     | ✓                                                      | ↓                                                                 | <u>22.1</u> |
|                                                          | Temp #4                                                   |             | <u>21.4</u>                                                       | ↓                                                                                     | ✓                                                      | ↓                                                                 | <u>21.7</u> |
|                                                          | DP Left                                                   |             | <u>10.7</u>                                                       | ↓                                                                                     | Cal. Time:                                             | ↓                                                                 | <u>11.0</u> |
|                                                          | DP Right                                                  |             | <u>11.1</u>                                                       | ↓                                                                                     | Cal. Time:                                             | ↓                                                                 | <u>11.5</u> |
| CRYO                                                     |                                                           |             | <u>N1</u>                                                         | ✓                                                                                     |                                                        |                                                                   |             |
| P<br>R<br>E<br>S<br>S                                    | Attack Angle (ADCAOA)                                     |             |                                                                   | <u>all</u>                                                                            | ✓                                                      |                                                                   |             |
|                                                          | Angle of Attack (APx, DAPx)                               |             |                                                                   | <u>all</u>                                                                            | ✓                                                      |                                                                   |             |
|                                                          | Sideslip (BPx, DBPx)                                      |             |                                                                   | <u>all</u>                                                                            | ✓                                                      |                                                                   |             |
|                                                          | Static Pressure (PS1M, PS2M)                              |             |                                                                   | <u>all</u>                                                                            | ✓                                                      |                                                                   |             |
|                                                          | Dynamic Pressure (QCxM)                                   |             |                                                                   | <u>all</u>                                                                            | ✓                                                      |                                                                   |             |
| Radome Press. Lines                                      |                                                           |             | Checked? <input checked="" type="checkbox"/> Date: <u>1/25/02</u> | ✓                                                                                     |                                                        |                                                                   |             |
| S<br>Y<br>S<br>T<br>E<br>M                               | SATCOM (Flight Phone) <input checked="" type="checkbox"/> |             |                                                                   | ✓ <u>088</u>                                                                          | ✓                                                      | Off CB? <input checked="" type="checkbox"/>                       |             |
|                                                          | Call COMSAT? <input checked="" type="checkbox"/> (*292#)  |             |                                                                   | CB's Checked? <input checked="" type="checkbox"/> <u>088</u>                          | ✓                                                      |                                                                   |             |
|                                                          | Iridium Phone                                             |             |                                                                   | ON? <input checked="" type="checkbox"/> <u>088</u>                                    | ✓                                                      | OFF? <input checked="" type="checkbox"/>                          |             |
|                                                          | FCU/UPS/CB                                                |             |                                                                   | ✓ <u>088</u>                                                                          | ✓                                                      | UPS off? <input checked="" type="checkbox"/>                      |             |
|                                                          | MADS (WINDS/DISCWIN)                                      |             |                                                                   | <u>all</u>                                                                            | ✓                                                      | # DATs: <u>1</u>                                                  |             |
|                                                          | Printer 1 (lp1)                                           |             |                                                                   | Power? <input checked="" type="checkbox"/> Paper? <input checked="" type="checkbox"/> | ✓                                                      | Printer Power off? <input checked="" type="checkbox"/> <u>088</u> |             |
|                                                          | MADS Cal. Date:                                           |             |                                                                   | QC time: <u>1953</u>                                                                  | ✓                                                      | QC time: <u>0251</u>                                              |             |
|                                                          | HAPS System                                               |             |                                                                   | Time set? <input type="checkbox"/> <u>Nu</u>                                          | ✓                                                      | # Msg.: # Fail:                                                   |             |
| AVAPS System                                             |                                                           |             | <u>DUC</u>                                                        | ✓                                                                                     |                                                        |                                                                   |             |
| Exterior Walk Around <input checked="" type="checkbox"/> |                                                           |             | <u>DWC</u>                                                        |                                                                                       |                                                        |                                                                   |             |
| Inspect Drop Sonde Chute Bolts                           |                                                           |             | <u>DWC</u>                                                        |                                                                                       |                                                        |                                                                   |             |
| M<br>I<br>S<br>C                                         | Down Port Door (Ozone Inst.)                              |             |                                                                   | Cover OFF? <input checked="" type="checkbox"/>                                        |                                                        | Cover ON? <input checked="" type="checkbox"/> <u>088</u>          |             |
|                                                          | AVAPS Sondes                                              |             |                                                                   | # On Board: <u>41</u>                                                                 | # Dropped: <u>17</u>                                   | # Good: <u>15</u>                                                 |             |
|                                                          | Sci. Power Monitor                                        |             |                                                                   | <u>088</u>                                                                            |                                                        |                                                                   |             |
|                                                          | APN-232 Altimeter                                         |             |                                                                   | <u>088</u>                                                                            |                                                        |                                                                   |             |
|                                                          | Modem                                                     |             |                                                                   | Power On? <input checked="" type="checkbox"/> <u>088</u>                              |                                                        |                                                                   |             |
|                                                          | 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                           |                                                           |             | ✓                                                                 |                                                                                       |                                                        |                                                                   |             |

|   |             |                 |                       |                  |
|---|-------------|-----------------|-----------------------|------------------|
| 1 | DAT Tape #1 | On: <u>1951</u> | Type: <u>VERB 60m</u> | Off: <u>0255</u> |
|   | Comments:   |                 |                       |                  |
|   |             |                 |                       |                  |
|   |             |                 |                       |                  |
|   |             |                 |                       |                  |