



|        |   |   |   |
|--------|---|---|---|
| AXBTS  | 0 | 0 | 0 |
| AXCPs  | 0 | 0 | 0 |
| AXCTDs | 0 | 0 | 0 |
| UAS    | 0 | 0 | 0 |

Flight Director: Kalen / Henning  
Phone #: 863-500-3962

ACAT-4 Version = 7.3

**U.S. Department of Commerce / NOAA / OMAO / Aircraft Operations Center - N49RF Manifest**

| FLIGHT INFORMATION                |                    |             |              | CREW MANIFEST |            |             | MISSION INFORMATION     |            |                    |          |           |
|-----------------------------------|--------------------|-------------|--------------|---------------|------------|-------------|-------------------------|------------|--------------------|----------|-----------|
| FLT ID:                           | 20210819N1         | FLT #:      |              | AC:           | Waddington | Scientists: | Pressure                |            | Dropsondes         |          |           |
| From:                             | KLAL               | ETD:        |              | CP(s):        | De Triquet |             | A/C Takeoff             |            | Good               | Bad      | Sent      |
| To:                               | KLAL               | ETA:        |              | NAV:          |            |             |                         |            | <b>37</b>          | <b>4</b> | <b>37</b> |
| Block Time                        |                    | Flight Time |              | FE(s):        |            |             | ASOS Takeoff            |            | BTs                |          |           |
| In:                               | <b>0225Z</b>       | Land:       | <b>0218Z</b> | FD(s):        | Henning    |             | A/C Land                |            | Good               | Bad      | Sent      |
| Out:                              | <b>1720Z</b>       | T/O:        | <b>1750Z</b> | SSA:          | Miller     | Visitors:   | ASOS Land               |            |                    |          |           |
| Total:                            | <b>9.1</b>         | Total:      | <b>8.5</b>   | AVAPS:        | Patel      |             | Storm Number ID:        |            |                    |          |           |
| Sponsoring Org:                   | NWS                |             |              | SEB:          |            |             | (ie: AL072012)          |            |                    |          |           |
| Program:                          |                    |             |              | MX:           |            |             | TCPOD/WSPOD Mission     |            | <b>WA07A GRACE</b> |          |           |
| Purpose:                          | Hurricane Research |             |              |               |            |             | (ie: NOAA2 2418A SANDY) |            |                    |          |           |
| AS REQUIRED BY ORM                |                    |             |              | Y             | N          | REMARKS     | Fix Number              | Obs Number | Fix Time           | SLP      |           |
| VOLCANIC ASH                      |                    |             |              |               | x          |             | <b>1</b>                |            |                    |          |           |
| SCIENCE MISSION WITHIN BDRY LAYER |                    |             |              |               | x          |             |                         |            |                    |          |           |
| LACK OF PRECIPITATION             |                    |             |              |               | x          |             | <b>2</b>                |            |                    |          |           |
| RELATIVE HUMIDITY ≥ 80%           |                    |             |              |               | x          |             |                         |            |                    |          |           |
| LARGE AIR-SEA TEMP GRADIENT       |                    |             |              |               | x          |             | <b>3</b>                |            |                    |          |           |
| HIGH SURFACE WINDS                |                    |             |              |               | x          |             |                         |            |                    |          |           |
| LONG FETCH / DURATION OF SFC WND  |                    |             |              |               | x          |             | <b>4</b>                |            |                    |          |           |
| SEA SALT ACCRETION FORECAST       |                    |             |              |               | x          |             |                         |            |                    |          |           |
| SEA SALT ACCRETION OBSERVED       |                    |             |              |               | x          |             | <b>Pennies:</b>         |            |                    |          |           |

\*Highlighted items must be completed before departure.

Remarks:

|  |
|--|
|  |
|  |
|  |

## G-IV QC Checklist

|                           |                        |
|---------------------------|------------------------|
| <b>Flight ID:</b>         | <b>20210819N1</b>      |
| <b>Flight Director(s)</b> | <b>Kalen / Henning</b> |

|                    |              |
|--------------------|--------------|
| <b>UWZ.d mean:</b> | <b>-0.01</b> |
|--------------------|--------------|

| Pressure Comparison |               |               |
|---------------------|---------------|---------------|
|                     | T/O           | Land          |
| <b>Aircraft</b>     | <b>1015.8</b> | <b>1013.3</b> |
| <b>Tower</b>        | <b>1016.5</b> | <b>1011.8</b> |

|  | Raw 1Hz Mean File Parameters                  |  |   |   |   | C File Parameters                              |  |
|--|---|--|---|---|---|--|--|
| <input checked="" type="checkbox"/> Accelerometer      | <input checked="" type="checkbox"/> AccAXI.1  | <input checked="" type="checkbox"/> AccAYI.1     | <input checked="" type="checkbox"/> AccAZI.1    |   |   | <input checked="" type="checkbox"/> AccZref    |  |
|  | <input checked="" type="checkbox"/> AccAXI.2  | <input checked="" type="checkbox"/> AccAYI.2     | <input checked="" type="checkbox"/> AccAZI.2    |   |   |  |  |
|  | <input checked="" type="checkbox"/> AccAXI.3  | <input checked="" type="checkbox"/> AccAYI.3     | <input checked="" type="checkbox"/> AccAZI.3    |   |   |  |  |
| <input checked="" type="checkbox"/> Altitude           | <input checked="" type="checkbox"/> AltGPS.1  | <input checked="" type="checkbox"/> AltI.1       | <input checked="" type="checkbox"/> AltPaADDU.1 | <input checked="" type="checkbox"/> AltBCADDU.1 | <input checked="" type="checkbox"/> AltBCADDU.2 | <input checked="" type="checkbox"/> ALTref     |  |
|  | <input checked="" type="checkbox"/> AltGPS.2  | <input checked="" type="checkbox"/> AltI.2       | <input checked="" type="checkbox"/> AltPaADDU.2 |   |   | <input checked="" type="checkbox"/> ALTPA.d    |  |
|  | <input checked="" type="checkbox"/> AltGPS.3  | <input checked="" type="checkbox"/> AltI.3       | <input checked="" type="checkbox"/> AltRA.1     |   |   | <input checked="" type="checkbox"/> ALTGA.d    |  |
| <input checked="" type="checkbox"/> Ground Speed       | <input checked="" type="checkbox"/> GsXI.1    | <input checked="" type="checkbox"/> GsYI.1       | <input checked="" type="checkbox"/> GsZI.1      | <input checked="" type="checkbox"/> GsGPS.1     | <input checked="" type="checkbox"/> GsGPS.2     | <input checked="" type="checkbox"/> GSXref     |  |
|  | <input checked="" type="checkbox"/> GsXI.2    | <input checked="" type="checkbox"/> GsYI.2       | <input checked="" type="checkbox"/> GsZI.2      | <input checked="" type="checkbox"/> GsGPS.2     | <input type="checkbox"/> GsGPS.3                | <input checked="" type="checkbox"/> GSYref     |  |
|  | <input checked="" type="checkbox"/> GsXI.3    | <input checked="" type="checkbox"/> GsYI.3       | <input checked="" type="checkbox"/> GsZI.3      |   |   | <input checked="" type="checkbox"/> GSZref     |  |
|  | <input checked="" type="checkbox"/> GsXGPS.1  | <input checked="" type="checkbox"/> GsYGPS.1     | <input checked="" type="checkbox"/> GsZGPS.1    |   |   |  |  |
|  | <input checked="" type="checkbox"/> GsXGPS.2  | <input checked="" type="checkbox"/> GsYGPS.2     | <input checked="" type="checkbox"/> GsZGPS.2    |   |   |  |  |
|  | <input type="checkbox"/> GsXGPS.3             | <input type="checkbox"/> GsYGPS.3                | <input type="checkbox"/> GsZGPS.3               |   |   |  |  |
| <input checked="" type="checkbox"/> Lat / Lon          | <input checked="" type="checkbox"/> LatGPS.1  | <input checked="" type="checkbox"/> LatI.1       | <input checked="" type="checkbox"/> LonGPS.1    | <input checked="" type="checkbox"/> LonI.1      |   | <input checked="" type="checkbox"/> LATref     |  |
|  | <input checked="" type="checkbox"/> LatGPS.2  | <input checked="" type="checkbox"/> LatI.2       | <input checked="" type="checkbox"/> LonGPS.2    | <input checked="" type="checkbox"/> LonI.2      |   | <input checked="" type="checkbox"/> LONref     |  |
|  | <input checked="" type="checkbox"/> LatGPS.3  |  | <input checked="" type="checkbox"/> LonGPS.3    |   |   |  |  |
| <input checked="" type="checkbox"/> Pressure           | <input checked="" type="checkbox"/> PDALPHA.1 | <input checked="" type="checkbox"/> PQALPHA.1    | <input checked="" type="checkbox"/> PQM.1       | <input checked="" type="checkbox"/> PSM.1       | <input checked="" type="checkbox"/> PSM.2       | <input checked="" type="checkbox"/> PDLAPHaref | <input checked="" type="checkbox"/> PQMref |
|  | <input checked="" type="checkbox"/> PDALPHA.2 | <input checked="" type="checkbox"/> PQALPHA.2    | <input checked="" type="checkbox"/> PQM.2       |   |   | <input checked="" type="checkbox"/> PDBETAref  | <input checked="" type="checkbox"/> PQ.c   |
|  | <input checked="" type="checkbox"/> PDBETA.1  | <input checked="" type="checkbox"/> PQBETA.1     |   |   |   | <input checked="" type="checkbox"/> PQALPHaref | <input checked="" type="checkbox"/> PSMref |
|  | <input checked="" type="checkbox"/> PDBETA.2  | <input checked="" type="checkbox"/> PQBETA.2     |   |   |   | <input checked="" type="checkbox"/> PQBETAref  | <input checked="" type="checkbox"/> PS.c   |
| <input checked="" type="checkbox"/> Air Speed          | <input checked="" type="checkbox"/> CasADDU.1 | <input checked="" type="checkbox"/> TasADDU.1    |   |   |   | <input checked="" type="checkbox"/> IAS.d      | <input checked="" type="checkbox"/> TAS.d  |
| <input checked="" type="checkbox"/> Pitch / Roll       | <input checked="" type="checkbox"/> PitchI.1  | <input checked="" type="checkbox"/> PitchRateI.1 | <input checked="" type="checkbox"/> RollI.1     | <input checked="" type="checkbox"/> RollRateI.1 |   | <input checked="" type="checkbox"/> PITCHref   |  |
|  | <input checked="" type="checkbox"/> PitchI.2  | <input checked="" type="checkbox"/> PitchRateI.2 | <input checked="" type="checkbox"/> RollI.2     | <input checked="" type="checkbox"/> RollRateI.2 |   | <input checked="" type="checkbox"/> ROLLref    |  |
|  | <input checked="" type="checkbox"/> PitchI.3  | <input checked="" type="checkbox"/> PitchRateI.3 | <input checked="" type="checkbox"/> RollI.3     | <input checked="" type="checkbox"/> RollRateI.3 |   |  |  |
| <input checked="" type="checkbox"/> Temp / Dewpt       | <input checked="" type="checkbox"/> TTM.1     | <input checked="" type="checkbox"/> TTM.4        | <input checked="" type="checkbox"/> TDM.1       |   |   | <input checked="" type="checkbox"/> TD.c       | <input checked="" type="checkbox"/> TTMref |
|  | <input type="checkbox"/> TTM.2                |  | <input checked="" type="checkbox"/> TDM.2       |   |   | <input checked="" type="checkbox"/> TDMref     | <input checked="" type="checkbox"/> TA.d   |
|  | <input checked="" type="checkbox"/> TTM.3     |  |   |   |   |  |  |
| <input checked="" type="checkbox"/> Misc. (Must check) |   |  |   |   |   | <input checked="" type="checkbox"/> UWZ.d      | <input checked="" type="checkbox"/> WS.d   |
|  |   |  |   |   |   | <input checked="" type="checkbox"/> DPJ_WSZ    | <input checked="" type="checkbox"/> WD.d   |
|  |   |  |   |   |   | <input checked="" type="checkbox"/> HUM        |  |

| FLID_Mission_Documents.pdf:         |  |
|-------------------------------------|--|
| <input checked="" type="checkbox"/> | Error Summary                                    |
| <input checked="" type="checkbox"/> | Crew Manifest                                    |
| <input checked="" type="checkbox"/> | QC Checklist                                     |
| <input checked="" type="checkbox"/> | Dropwindsonde Log(s) - AVAPS and FD if completed |
| <input checked="" type="checkbox"/> | Flight Track                                     |
| <input checked="" type="checkbox"/> | Miscellaneous FD Notes                           |

| QC Key        |                                     |
|---------------|-------------------------------------|
| Not checked   | <input type="checkbox"/>            |
| Valid         | <input checked="" type="checkbox"/> |
| Errors (note) | <input checked="" type="checkbox"/> |

### NOTES:

.1 and .2 GPS parameters data "stair steps"  
PDBETA.1 & PDBETA.2 unrepresentative due to spare radome  
PQBETA.1 & PQBETA.2 unrepresentative due to spare radome  
PQM.1 has a large plateau between 22:26 and 23:42; all other data is representative  
All flight level wind speed and direction suspected errors due to spare radome  
TTM.3 oscillates  
TDM.1 unrepresentative



AOC GPS Dropwindsonde Log (updated Mar 2019)

Flight ID: 20210819N1

ASPEN Operator/Flight Director(s): KALEN / HENNING

Mission ID: 0208A

Storm Name/Track: HENRI

PG 1 of 2

| Sonde # | Ob # | Launch Time HHMMSS (Z) | Sonde ID (min last 5) | Ch # used | Lat (°N) | Lon (°E) | Prominent Wx Cond. | SFC Prs (mb)               | Comments / Issues / QC / ASPEN Edits | KWBC # | Sonde Issues? |
|---------|------|------------------------|-----------------------|-----------|----------|----------|--------------------|----------------------------|--------------------------------------|--------|---------------|
| 1       | 1    | 185614                 | 30209                 | 1         | 28.3     | 74.4     | BKN                | 1014.3                     | <u>SFC WIND</u><br>325/15            | 1917   | ✓✓            |
| 2       | 2    | 190714                 | 30182                 | 2         | 27.2     | 73.5     | BKN                | 1015.1                     | 285/7                                | 1929   | ✓✓            |
| 3       |      |                        |                       | 3         |          |          | NO LAUNCH DETECT   |                            |                                      |        |               |
| 4       | 3    | 191853                 | 31266                 | 4         | 26.7     | 72.2     | UCST               | 1015.1                     | 245/13                               | 1938   | ✓✓            |
| 5       | 4    | 192829                 | 31775                 | 1         | 26.7     | 71.0     | CDO                | 1015.6                     | 215/24                               | 1950   | ✓✓            |
| 6       | 5    | 193828                 | 31159                 | 2         | 27.3     | 69.8     | CDO                | 1015.6                     | 195/13                               | 2007   | ✓✓            |
| 7       | 6    | 194949                 | 31202                 | 3         | 28.3     | 69.0     | BKN                | 1015.6                     | 185/25                               | 2011   | ✓✓            |
| 8       |      |                        |                       | 4         |          |          | FAST FALL          |                            |                                      |        |               |
| 9       | 7    | 200709                 | 30184                 | 1         | 28.6     | 66.7     | SCT                | 1017.7                     | 165/14                               | 2028   | ✓✓            |
| 10      | 8    | 201606                 | 31261                 | 2         | 28.7     | 65.5     | SCT                | 1018.9                     | 140/9                                | 2040   | ✓✓            |
| 11      | 9    | 202924                 | 40116                 | 3         | 30.1     | 65.7     | FEW                | 1018.6                     | 165/15                               | 2054   | ✓✓            |
| 12      | 10   | 203807                 | 20788                 | 4         | 30.1     | 66.9     | FEW                | 1018.1                     | 115/11                               | 2059   | ✓✓            |
| 13      | 11   | 205054                 | 31203                 | 1         | 29.7     | 68.6     | FEW                | 1014.9                     | 160/25                               | 2112   | ✓✓            |
| 14      |      |                        |                       | 2         |          |          | SET FAST FALL      |                            |                                      |        |               |
| 15      | 12   | 210336                 | 31079                 | 3         | 31.0     | 68.7     | SCT                | 1016.3                     | 140/19                               | 2122   | ✓✓            |
| 16      | 13   | 211740                 | 30207                 | 4         | 31.8     | 67.1     | FEW                | 1017.7                     | 145/18                               | 2141   | ✓✓            |
| 17      | 14   | 213017                 | 31070                 | 1         | 32.5     | 65.7     | FEW                | 1018.6                     | 140/9                                | 2151   | ✓✓            |
| 18      | 15   | 214232                 | 31816                 | 2         | 33.8     | 66.3     | FEW                | 1018.7                     | 145/15                               | 2202   | ✓✓            |
| 19      | 16   | 215325                 | 40451                 | 3         | 34.9     | 65.7     | FEW                | 1018.6                     | 190/13                               | 2226   | ✓✓            |
| 20      |      |                        |                       | 4         |          |          | NO LAUNCH DETECT   |                            |                                      |        |               |
| 21      | 17   | 220607                 | 21014                 | 1         | 34.9     | 67.6     | FEW                | 1018.8                     | 170/14                               | 2228   | ✓✓            |
| 22      | 18   | 221754                 | 40013                 | 2         | 33.5     | 68.4     | FEW                | 1018.0                     | 165/16                               | 2254   | ✓✓            |
| 23      | 19   | 223258                 | 30668                 | 3         | 32.1     | 69.9     | FEW                | 1015.4                     | 125/25                               | 2256   | ✓✓            |
| 24      | 20   | 224204                 | 40398                 | 4         | 32.6     | 71.0     | FEW                | 1015.6                     | 115/20                               | 2304   | ✓✓            |
| 25      | 21   | 225815                 | 31822                 | 1         | 34.4     | 70.9     | FEW                | 1016.6                     | 125/18                               | 2319   | ✓✓            |
| 26      | 22   | 230636                 | 31648                 | 2         | 34.4     | 72.0     | FEW                | 1015.0                     | 130/11                               | 2325   | ✓✓            |
| 27      | 23   | 232208                 | 31139                 | 3         | 32.6     | 72.5     | SCT                | 1014.6                     | 085/17                               | 2342   | ✓✓            |
| 28      | 24   | 233004                 | 31647                 | 4         | 32.4     | 73.5     | SCT                | 1014.6                     | 095/14                               | 2353   | ✓✓            |
| 29      | 25   | 234253                 | 21012                 | 1         | 31.0     | 74.0     | SCT                | 1012.3                     | 040/19                               | 0002   | ✓✓            |
| 30      | 26   | 235215                 | 20016                 | 2         | 30.7     | 72.8     | SCT                | 1009.4                     | 040/27                               | 0012   | ✓✓            |
| 31      | 27   | 000045                 | 31050                 | 3         | 31.1     | 71.7     | SCT                | 1011.8                     | 095/38                               | 0020   | ✓✓            |
| 32      | 28   | 000904                 | 20018                 | 4         | 30.6     | 70.6     | CDO                | 1012.7                     | 140/27                               | 0029   | ✓✓            |
| 33      | 29   | 001812                 | 30052                 | 1         | 29.6     | 70.2     | CDO                | 1013.4                     | 140/31                               | 0041   | ✓✓            |
| 34      | 30   | 002728                 | 30050                 | 2         | 28.6     | 70.7     | CDO                | BAD TERMINATION NO HEIGHTS |                                      | 0049   | ✓             |
| 35      | 31   | 003836                 | 40402                 | 3         | 27.9     | 70.7     | CDO                | 1014.2                     | 195/24                               | 0059   | ✓✓            |
| 36      | 32   | 004859                 | 30063                 | 4         | 28.3     | 73.1     | CDO                | 1011.2                     | 275/25                               | 0109   | ✓✓            |
| 37      | 33   | 010011                 | 31072                 | 1         | 29.5     | 73.4     | —                  | 1007.6                     | 330/27                               | 0120   | ✓✓            |
| 38      | 34   | 010955                 | 30055                 | 2         | 29.6     | 74.7     | —                  | 1012.9                     | 345/21                               | 0130   | ✓✓            |

ASPEN Operator will ensure this form is delivered to the AOC Flight Director to be archived

COMMENTS:

Obs Xmitted 37 Obs Missed 0 # of sondes launched 41 # of bad sondes 4



AOC GPS Dropwindsonde Log (updated Mar 2019)

Flight ID: 20210819N1

ASPEN Operator/Flight Director(s): KALEN / HENNING

Mission ID: 0208A

Storm Name/Track: HENRI

PG 2 of 2

| Sonde # | Ob # | Launch Time HHMMSS (Z) | Sonde ID (min last 5) | Ch # used | Lat (°N) | Lon (°E) | Prominent Wx Cond. | SFC Prs (mb) | Comments / Issues / QC / ASPEN Edits | KWBC # | Sonde Issues? |
|---------|------|------------------------|-----------------------|-----------|----------|----------|--------------------|--------------|--------------------------------------|--------|---------------|
| 1       | 35   | 011824                 | 31138                 | 3         | 29.7     | 75.9     | —                  | 1014.0       | <u>SURFACE WIND</u><br>345/15        | 0138   | ✓             |
| 2       | 36   | 013000                 | 21028                 | 4         | 29.3     | 77.4     | —                  | 1016.2       | 005/24                               | 0149   | ✓             |
| 3       | 37   | 014120                 | 40461                 | 1         | 28.8     | 80.0     | —                  | 1016.2       | 350/4                                | 0201   | ✓             |
| 4       |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 5       |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 6       |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 7       |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 8       |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 9       |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 10      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 11      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 12      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 13      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 14      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 15      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 16      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 17      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 18      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 19      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 20      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 21      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 22      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 23      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 24      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 25      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 26      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 27      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 28      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 29      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 30      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 31      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 32      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 33      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 34      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 35      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 36      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 37      |      |                        |                       |           |          |          |                    |              |                                      |        |               |
| 38      |      |                        |                       |           |          |          |                    |              |                                      |        |               |

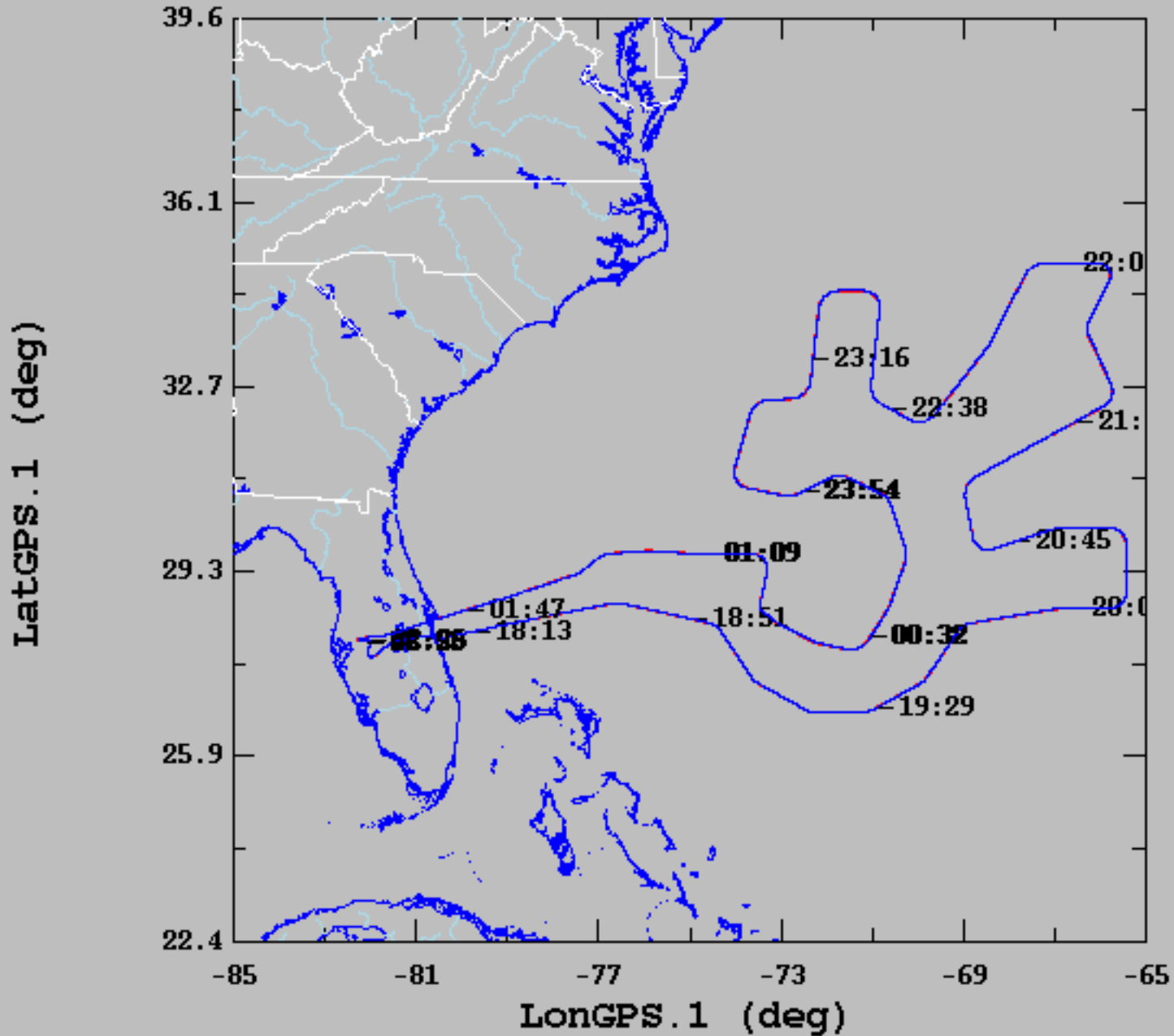
ASPEN Operator will ensure this form is delivered to the AOC Flight Director to be archived

COMMENTS:

Obs Xmitted 37 Obs Missed Ø # of sondes launched 41 # of bad sondes 4



2021-08-19, 16:58:13-26:25:31



|                            | mean   | sigma | min    | max    |
|----------------------------|--------|-------|--------|--------|
| — LatGPS.1 (deg), 1 s/sec  | 29.92  | 2.28  | 26.68  | 35.00  |
| — LongGPS.1 (deg), 1 s/sec | -73.23 | 5.37  | -82.24 | -65.40 |
| — LatI.1 (deg), 1 s/sec    | 29.92  | 2.27  | 26.68  | 35.00  |
| — LonI.1 (deg), 1 s/sec    | -73.23 | 5.37  | -82.24 | -65.41 |