

N42RF ERROR SUMMARY  
20241105H1\_ES

Flight ID: 20241105H1

| Sensor or System                     | Number or Name    |
|--------------------------------------|-------------------|
| -----                                | -----             |
| Static Pressure Probe                | PSM.2             |
| Dynamic Pressure Probe               | PQM.2             |
| Total Temperature Probe              | TTM.1             |
| Dewpoint Temp. Probe                 | TDM.1             |
| Vertical Accelerometer               | AccZfilterI-GPS.1 |
| Altimeter                            | AltGPS.3          |
| INE Selection                        | 1                 |
| Differential Attack Pressure Probe   | PDALPHA.1         |
| Differential Sideslip Pressure Probe | PDBETA.1          |
| Dynamic Attack Pressure Probe        | PQALPHA.1         |
| Dynamic Sideslip Pressure Probe      | PQBETA.1          |

Flight Directory acdata/2024/MET/20241105H1

| Local Met Data        | Takeoff KLAL (2013Z) | Landing KLAL (1529Z) |
|-----------------------|----------------------|----------------------|
| Dynamic Corrections   |                      | Yes                  |
| AttackAngleIntercept  |                      | 2.32804              |
| AttackAngleSlope      |                      | 6.09319              |
| SlipAngleIntercept    |                      | 0.25                 |
| SlipAngleSlope        |                      | 6.641                |
| AttackAngleIntercept2 |                      | 2.06219              |
| AttackAngleSlope2     | 5.99068              |                      |
| SlipAngleIntercept2   |                      | 0.125                |
| SlipAngleSlope2       |                      | 6.9873               |

---

Notes:

There were no edits made in the measured parameters used to calculate meteorological and navigational parameters.

Takeoff/Landing data: Data during landing and takeoff are potentially suspect. It is recommended that ground data not be used for scientific analysis.

Pitch and Roll I.3, TTM.3, TDM.3, and TRadU.1 not operational.

TDM.1 inoperative throughout duration of flight.

SFMR data (all channel TB, WS, RAIN RATE) under assessment and should be used with caution.

| Expendable Type | # deployed | # good | # transmitted |
|-----------------|------------|--------|---------------|
| -----           | -----      | -----  | -----         |
| Dropsondes      | 22         | 21     | 21            |
| Test sondes     | 0          | 0      | 0             |
| AXBTS           | 0          | 0      | 0             |
| AXCPs           | 0          | 0      | 0             |
| AXCTDs          | 0          | 0      | 0             |
| UAS             | 0          | 0      | 0             |

Flight Director: Englert/Zawislak  
Phone #: 8636066847

ACAT-4 Version = 7.4

## U.S. Department of Commerce / NOAA / OMAO / Aircraft Operations Center - Flight Manifest

| FLIGHT INFORMATION                |                   |                    |                      | CREW MANIFEST |                    |                           | MISSION INFORMATION                      |            |                            |               |           |
|-----------------------------------|-------------------|--------------------|----------------------|---------------|--------------------|---------------------------|--|------------|----------------------------|---------------|-----------|
| FLT ID:                           | <b>20241105H1</b> | FLT #:             |                      | AC:           | <b>Keith</b>       | Other Crew:               | sUAS                                     |            | Dropsondes                 |               |           |
| From:                             | <b>KLAL</b>       | ETD:               | <b>1500L / 2000Z</b> | CP(s):        | <b>Taraboletti</b> | <b>Aberson, Sim (HRD)</b> | Type                                     | Released   | Good                       | Bad           | Sent      |
| To:                               | <b>KLAL</b>       | ETA:               | <b>2300L / 0400Z</b> | NAV(s):       | <b>Ellis</b>       |                           |  |            | <b>21</b>                  | <b>1</b>      | <b>22</b> |
| Block Time                        |                   | Flight Time        |                      | FE(s):        | <b>Tyson</b>       |                           | Other Expendables                        |            | Dropsonde Charge Codes     |               |           |
| Out:                              | <b>19:58</b>      | T/O:               | <b>20:13</b>         | FD(s):        | <b>Wysinger</b>    |                           | Type                                     | Released   | <b>6 AOC, 16 NWS</b>       |               |           |
| In:                               | <b>03:07</b>      | Land:              | <b>02:59</b>         | SSA:          | <b>Englert</b>     |                           |  |            | AXBTs                      |               |           |
| Total:                            | <b>7.2</b>        | Total:             | <b>6.8</b>           | IFT(s):       | <b>Zawislak</b>    |                           |  |            | Good                       | Bad           | Sent      |
| Sponsoring Org:                   |                   | <b>NHC</b>         |                      | MX:           | <b>McAlister</b>   |                           |  |            | <b>0</b>                   | <b>0</b>      | <b>0</b>  |
| Program:                          |                   | <b>PRX</b>         |                      |               | <b>Dykeman</b>     |                           | Pennies                                  |            | <b>1x TS, 2x HU (CAT1)</b> |               |           |
| Purpose:                          |                   | <b>TDR Mission</b> |                      |               | <b>Vargas</b>      |                           | Storm ID:<br>(i.e., AL072012)            |            | <b>AL182024</b>            |               |           |
|                                   |                   |                    |                      |               |                    |                           | Mission ID:<br>(i.e., NOAA2 2418A SANDY) |            | <b>NOAA2 1018A RAFAEL</b>  |               |           |
| AS REQUIRED BY ORM                |                   |                    | Y                    | N             | REMARKS            |                           | OBSERVATIONS                             |            |                            |               |           |
| VOLCANIC ASH                      |                   |                    |                      | X             |                    |                           | Fix Number                               | Obs Number | Fix Time                   | SLP           |           |
| SCIENCE MISSION WITHIN BDRY LAYER |                   |                    |                      | X             |                    |                           | <b>1</b>                                 | <b>8</b>   | <b>2245z</b>               | <b>989 mb</b> |           |
| LACK OF PRECIPITATION             |                   |                    |                      | X             |                    |                           | <b>2</b>                                 | <b>15</b>  | <b>2359z</b>               | <b>989 mb</b> |           |
| RELATIVE HUMIDITY ≥ 80%           |                   |                    | X                    |               |                    |                           | <b>3</b>                                 | <b>20</b>  | <b>0109z</b>               | <b>986 mb</b> |           |
| LARGE AIR-SEA TEMP GRADIENT       |                   |                    |                      | X             |                    |                           | <b>4</b>                                 |            |                            |               |           |
| HIGH SURFACE WINDS                |                   |                    |                      | X             |                    |                           |  |            |                            |               |           |
| LONG FETCH / DURATION OF SFC WND  |                   |                    |                      | X             |                    |                           |  |            |                            |               |           |
| SEA SALT ACCRETION FORECAST       |                   |                    |                      | X             |                    |                           |  |            |                            |               |           |
| SEA SALT ACCRETION OBSERVED       |                   |                    |                      |               |                    |                           |  |            |                            |               |           |

\*Highlighted items must be completed before departure.

## P-3 QC Checklist

|                    |   |
|--------------------|---|
| Overall Assessment | Minor instrument issue(s) - minimal mission impact. |
|--------------------|---|

|                     |                    |
|---------------------|--------------------|
| Flight ID:          | 20241105H1         |
| Flight Director(s): | Englert/Zawislak   |
| Mission:            | Tasked/Operational |
| UWZ.d mean:         | 0.09               |

| Pressure Comparison |            |             |
|---------------------|------------|-------------|
|                     | Pre-flight | Post-flight |
| Aircraft            | 1009.9     | -           |
| Airfield            | 1010.5     | -           |

|                 |  |
|-----------------|--|
| This form uses: |  |
| _A.nc           |  |

|                  |   |
|------------------|---|
| SFMR Serial Unit | 3 |
|------------------|---|

| Parameters   | Raw  |  |  |   | Derived, Corrected & Reference   |   |
|--|--|--|--|---|--|---|
| <input checked="" type="checkbox"/> Acceleration   | <input checked="" type="checkbox"/> AccAXI.1<br><input checked="" type="checkbox"/> AccAXI.2<br><input checked="" type="checkbox"/> AccAXI-GPS.1<br><input checked="" type="checkbox"/> AccAXI-GPS.2 | <input checked="" type="checkbox"/> AccAYI.1<br><input checked="" type="checkbox"/> AccAYI.2<br><input checked="" type="checkbox"/> AccAYI-GPS.1<br><input checked="" type="checkbox"/> AccAYI-GPS.2 | <input checked="" type="checkbox"/> AccAZI.1<br><input checked="" type="checkbox"/> AccAZI.2<br><input checked="" type="checkbox"/> AccAZI-GPS.1<br><input checked="" type="checkbox"/> AccAZI-GPS.2 | <input checked="" type="checkbox"/> AccZfilter-GPS.1<br><input checked="" type="checkbox"/> AccZfilter-GPS.2  | <input checked="" type="checkbox"/> AccZref  |   |
| <input checked="" type="checkbox"/> Altitude   | <input checked="" type="checkbox"/> AltGPS.1<br><input checked="" type="checkbox"/> AltGPS.2<br><input checked="" type="checkbox"/> AltGPS.3<br><input checked="" type="checkbox"/> AltGPS.4         | <input checked="" type="checkbox"/> AltI-GPS.1<br><input checked="" type="checkbox"/> AltI-GPS.2   | <input checked="" type="checkbox"/> AltPaADDU.1<br><input checked="" type="checkbox"/> AltBCADDU.1   | <input checked="" type="checkbox"/> AltRA.1<br><input checked="" type="checkbox"/> AltRA.2  | <input checked="" type="checkbox"/> ALTref<br><input checked="" type="checkbox"/> ALTPA.d<br><input checked="" type="checkbox"/> ALTGA.d   | <input checked="" type="checkbox"/> AltRA1.c<br><input checked="" type="checkbox"/> AltRA2.c  |
| <input checked="" type="checkbox"/> Ground Speed   | <input checked="" type="checkbox"/> GsXI-GPS.1<br><input checked="" type="checkbox"/> GsXI-GPS.2   | <input checked="" type="checkbox"/> GsYI-GPS.1<br><input checked="" type="checkbox"/> GsYI-GPS.2   | <input checked="" type="checkbox"/> GsZI-GPS.1<br><input checked="" type="checkbox"/> GsZI-GPS.2   | <input checked="" type="checkbox"/> GSXref<br><input checked="" type="checkbox"/> GSYref<br><input checked="" type="checkbox"/> GSZref                |  |   |
| <input checked="" type="checkbox"/> Location   | <input checked="" type="checkbox"/> LatGPS.1<br><input checked="" type="checkbox"/> LatGPS.2<br><input checked="" type="checkbox"/> LatGPS.3<br><input checked="" type="checkbox"/> LatGPS.4         | <input checked="" type="checkbox"/> LatI-GPS.1<br><input checked="" type="checkbox"/> LatI-GPS.2   | <input checked="" type="checkbox"/> LonGPS.1<br><input checked="" type="checkbox"/> LonGPS.2<br><input checked="" type="checkbox"/> LonGPS.3<br><input checked="" type="checkbox"/> LonGPS.4         | <input checked="" type="checkbox"/> LonI-GPS.1<br><input checked="" type="checkbox"/> LonI-GPS.2  | <input checked="" type="checkbox"/> LATref<br><input checked="" type="checkbox"/> LONref   |   |
| <input checked="" type="checkbox"/> Pressure Sensors   | <input checked="" type="checkbox"/> PDALPHA.1<br><input checked="" type="checkbox"/> PDALPHA.2<br><input checked="" type="checkbox"/> PDBETA.1<br><input checked="" type="checkbox"/> PDBETA.2       | <input checked="" type="checkbox"/> PQALPHA.1<br><input checked="" type="checkbox"/> PQBETA.1  | <input checked="" type="checkbox"/> PQM.1<br><input checked="" type="checkbox"/> PQM.2<br><input checked="" type="checkbox"/> PQM.3<br><input checked="" type="checkbox"/> PQM.4                     | <input checked="" type="checkbox"/> PSM.1<br><input checked="" type="checkbox"/> PSM.2<br><input checked="" type="checkbox"/> PTM.1                   | <input checked="" type="checkbox"/> PQMref<br><input checked="" type="checkbox"/> PQ.c<br><input checked="" type="checkbox"/> PSMref<br><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"/> IasADDU.1  | <input checked="" type="checkbox"/> IAS.d<br><input checked="" type="checkbox"/> TAS.d  |  |   |
| <input checked="" type="checkbox"/> Pitch / Roll   | <input checked="" type="checkbox"/> PitchI.1<br><input checked="" type="checkbox"/> PitchI.2<br><span style="color: blue;">inop</span> PitchI.3  | <input checked="" type="checkbox"/> PitchRatI.1<br><input checked="" type="checkbox"/> PitchRatI.2<br><span style="color: blue;">inop</span> PitchRatI.3   | <input checked="" type="checkbox"/> RollI.1<br><input checked="" type="checkbox"/> RollI.2<br><span style="color: blue;">inop</span> RollI.3   | <input checked="" type="checkbox"/> RollRatI.1<br><input checked="" type="checkbox"/> RollRatI.2<br><span style="color: blue;">inop</span> RollRatI.3 | <input checked="" type="checkbox"/> PITCHref<br><input checked="" type="checkbox"/> ROLLref  |   |
| <input checked="" type="checkbox"/> Temperature, Dewpoint, Radiometers                           | <input checked="" type="checkbox"/> TTM.1<br><input checked="" type="checkbox"/> TTM.2<br><span style="color: blue;">inop</span> TTM.3   | <span style="color: red;">X</span> TDM.1<br><input checked="" type="checkbox"/> TDM.2<br><span style="color: blue;">inop</span> TDM.3  | <input checked="" type="checkbox"/> TRadD.1<br><input checked="" type="checkbox"/> TRadS.1<br><span style="color: blue;">inop</span> TRadU.1   | <input checked="" type="checkbox"/> TD.c<br><input checked="" type="checkbox"/> TDMref<br><input checked="" type="checkbox"/> HUM                     |  | <input checked="" type="checkbox"/> TTMref<br><input checked="" type="checkbox"/> TA.d  |
| <input checked="" type="checkbox"/> Wind and Pressure<br><span style="color: red;">X</span> SFMR | SFMR   | <span style="color: red;">X</span> CH 1 TB<br><span style="color: red;">X</span> CH 2 TB<br><span style="color: red;">X</span> CH 3 TB   | <span style="color: red;">X</span> CH 4 TB<br><span style="color: red;">X</span> CH 5 TB<br><span style="color: red;">X</span> CH 6 TB   | <input checked="" type="checkbox"/> UWZ.d<br><input checked="" type="checkbox"/> PSURF<br><span style="color: red;">X</span> WS SFMR                  |  | <input checked="" type="checkbox"/> WS.d<br><input checked="" type="checkbox"/> WD.d<br><span style="color: red;">X</span> RAIN RATE SFMR |

| 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                                      |

| QC Key:            |  |
|--------------------|--|
| Valid              | <input checked="" type="checkbox"/>    |
| Errors (see NOTES) | <span style="color: red;">X</span>     |
| Sensor Inoperative | <span style="color: blue;">inop</span> |

### NOTES:

Pitch and Roll I.3, TTM.3, TDM.3, and TRadU.1 not operational.  
 TDM.1 inoperative throughout duration of flight.  
 SFMR data (all channel TB, WS, RAIN RATE) under assessment and should be used with caution.

## Dropwindsonde Scientist Log

|               |        |                   |            |                    |       |                 |           |                 |       |
|---------------|--------|-------------------|------------|--------------------|-------|-----------------|-----------|-----------------|-------|
| <b>Storm:</b> | Rafael | <b>Flight ID:</b> | 20241105H1 | <b>Mission ID:</b> | 1018A | <b>Takeoff:</b> | 2013 KLAL | <b>Landing:</b> | HHMMZ |
|               |        |                   |            |                    |       |                 |           |                 |       |
|               |        |                   |            |                    |       |                 |           |                 |       |

|                                |                                 |                        |                  |
|--------------------------------|---------------------------------|------------------------|------------------|
| <b>Dropsonde Scientist(s):</b> | Sellwood / Goldenberg shadowing | <b>AVAPS Operator:</b> | Vargas / Dykeman |
|--------------------------------|---------------------------------|------------------------|------------------|

### Pre-flight

- ✓ Discuss the pattern with the Lead Project Scientist (LPS) and ensure that enough dropsondes are onboard.
- ✓ Complete the appropriate pre-flight set-up of your workstation and ASPEN (see [Dropsonde Processing Guide](#)).

### In-flight

- ✓ Ensure the Flight Director is aware of upcoming drops and whether a backup is requested in case of failure.
- ✓ Ensure the AVAPS operator has determined that the dropsonde is (or is not) transmitting a good signal.
- ✓ Prioritize processing of center drops and report MSLP and surface wind speed and direction to the Flight Director.
- ✓ Fill in the Dropwindsonde Scientist log as drops are released and processed.
- ✓ Copy completed ASPEN files (e.g., FRD, netCDF, Skew-t, WMO txt, BUFR) into the “FRD” folder on the workstation desktop for automated transmission to the ground for archival.

### Once “science is complete”...

- ✓ Make synoptic map plots in ASPEN and copy them to the “FRD” folder on the workstation desktop for automated transmission to the ground for archival.
- ✓ Ensure ASPEN files have been sent to the ground by locating and verifying all files in the “FLIGHTID” folder within the “FRD” folder on the workstation desktop.
- ✓ Archive ASPEN\_DATA and RAW\_DATA into a folder named with the FLIGHTID within the “Season Dropsonde Archive” folder on the workstation desktop and upload the same directories into StormName/FLIGHTID/Dropsonde/ folder on Drive.
- ✓ Download this Dropwindsonde Scientist Log as “PDF” and upload completed PDF and Google Doc to the StormName/FLIGHTID/Dropsonde/ folder within the “Mission Reports” directory in the HFP Google Drive.

| Drop #  | Sonde ID   | Time UTC | Lat (°N/S) | Lon (°E/W) | Sfc Pressure (mb) | Lowest Wind Direction/Speed (deg/kt) | Lowest Wind Height (m) | AXBT SST (°C) | Eye, Eyewall, Rainband, etc. | Ob # |
|---|------------|----------|------------|------------|-------------------|--------------------------------------|------------------------|---------------|------------------------------|------|
| 1   | 233950684  | 2048     | 26.45      | -82.83     | 1012              | 085/20                               | 10                     |               |                              | 1    |
| Comments: set end 448.25 - drop 1 for interference test - no dropouts   |            |          |            |            |                   |                                      |                        |               |                              |      |
| 2   | 233350176  | 2049     | 26.45      | -82.82     | 1012              | 090/18                               | 10                     |               |                              | n/a  |
| Comments: no manual QC - drop 2 for interference test - no dropouts     |            |          |            |            |                   |                                      |                        |               |                              |      |
| 3   | 233667950  | 2109 (3) | 25.45      | -81.49     | 1011              | 090/18                               | 10                     |               |                              | 2    |
| Comments: set end 446.25 - drop 3 for interference test - no dropouts   |            |          |            |            |                   |                                      |                        |               |                              |      |
| 4   | 234220758  | 2109 (4) | 25.45      | -81.49     | 1011              | 085/18                               | 10                     |               |                              | n/a  |
| Comments: no manual QC - drop 4 for interference test - no dropouts     |            |          |            |            |                   |                                      |                        |               |                              |      |
| 5   | 233540565  | 2125(50) | 24.15      | -81.00     | 1009              | 100/21                               | 10                     |               |                              | 3    |
| Comments: set end 432.25 - drop 5 for interference test - some dropouts |            |          |            |            |                   |                                      |                        |               |                              |      |
| 6   | 233410821  | 2125(6)  | 23.15      | -81.00     | 1010              | 100/23                               | 10                     |               |                              | n/a  |
| Comments: drop 6 for interference test - no dropouts                    |            |          |            |            |                   |                                      |                        |               |                              |      |
| 7   | 233950677  | 2214     | 20.21      | -81.48     | 1006              | 075/31                               | 10                     |               | IP NW                        | 04   |
| Comments: set end 227.25  |            |          |            |            |                   |                                      |                        |               |                              |      |
| 8   | 233640827  | 2229     | 19.82      | -80.60     | 1004              | 055/29                               | 10                     |               | MID NW                       | 05   |
| Comments: set end 188.50  |            |          |            |            |                   |                                      |                        |               |                              |      |
| 9   | 2339590696 | 2245     | 19.19      | -79.74     | 989               | 175/14                               | 10                     |               | Center                       | 06   |
| Comments: no manual QC  |            |          |            |            |                   |                                      |                        |               |                              |      |
| 10  | 234220220  | 2256     | 19.79      | -79.1      | 1003              | 175/28                               | 10                     |               | MID SE                       | 07   |
| Comments: set end 190.75  |            |          |            |            |                   |                                      |                        |               |                              |      |

| Drop #   | Sonde ID  | Time UTC | Lat (°N/S) | Lon (°E/W) | Sfc Pressure (mb) | Lowest Wind Direction/Speed (deg/kt) | Lowest Wind Height (m) | AXBT SST (°C) | Eye, Eyewall, Rainband, etc. | Ob # |
|--|-----------|----------|------------|------------|-------------------|--------------------------------------|------------------------|---------------|------------------------------|------|
| 11   | 233950666 | 2311     | 18.57      | -78.37     | 1006              | 130/20                               | 10                     |               | EP SE                        | 09   |
| Comments: no manual QC   |           |          |            |            |                   |                                      |                        |               |                              |      |
| 12   | 233650325 | 2334     | 20.22      | -78.41     | 1007              | 115/35                               | 10                     |               | IP NE                        | 10   |
| Comments: set end 198.00   |           |          |            |            |                   |                                      |                        |               |                              |      |
| 13   | 234220080 | 2345     | 19.83      | -79.13     | 1004              | 110/45                               | 10                     |               | MID NE                       | 11   |
| Comments: set end 1 frame up   |           |          |            |            |                   |                                      |                        |               |                              |      |
| 14   |           | 2359     |            |            |                   |                                      |                        |               |                              |      |
| Comments: center fast fall backed up not processed                         |           |          |            |            |                   |                                      |                        |               |                              |      |
| 15   | 234220158 | 0000     | 19.34      | -79.99     | 989               | 240/31                               | 10                     |               | Center                       | 12   |
| Comments: set end 195.00   |           |          |            |            |                   |                                      |                        |               |                              |      |
| 16   | 233824686 | 0011     | 18.92      | -80.66     | 1002              | 285/16                               | 10                     |               | MID SW                       | 13   |
| Comments: removed T and RH up to 17s constant temperature looked squirrely |           |          |            |            |                   |                                      |                        |               |                              |      |
| 17   | 235144616 | 0024     | 18.49      | -81.45     | 1006              | 345/12                               | 10                     |               | EP SW                        | 14   |
| Comments: set end 201.25   |           |          |            |            |                   |                                      |                        |               |                              |      |
| 18   | 234850637 | 0046     | 17.93      | -80.15     | 1005              | 205/14                               | 10                     |               | IP S                         | 16   |
| Comments: removed first 12 sec of T RH slow EQ                             |           |          |            |            |                   |                                      |                        |               |                              |      |
| 19   | 243220077 | 0057     | 18.75      | -80.15     | 1003              | 230/15                               | 10                     |               | MID S                        | 17   |
| Comments:  |           |          |            |            |                   |                                      |                        |               |                              |      |
| 20   | 234150034 | 0108     | 19.52      | -80.20     | 986               | 155/05                               | 10                     |               | Center                       | 18   |

|  |
|--|
| Comments: removed first 10 seconds of T RH |
|  |
|  |

| Drop #                   | Sonde ID  | Time UTC | Lat (°N/S) | Lon (°E/W) | Sfc Pressure (mb) | Lowest Wind Direction/Speed (deg/kt) | Lowest Wind Height (m) | AXBT SST (°C) | Eye, Eyewall, Rainband, etc. | Ob # |
|--------------------------|-----------|----------|------------|------------|-------------------|--------------------------------------|------------------------|---------------|------------------------------|------|
| 21                       | 234220163 | 0122     | 20.45      | -80.16     | 1005              | 095/28                               | 10                     |               | MID N                        | 19   |
| Comments: set end 182.75 |           |          |            |            |                   |                                      |                        |               |                              |      |
| 22                       | 234220954 | 0135     | 21.32      | -81.10     | 1008              | 085/28                               | 10                     |               | EP N                         | 21   |
| Comments:                |           |          |            |            |                   |                                      |                        |               |                              |      |
|                          |           |          |            |            |                   |                                      |                        |               |                              |      |
| Comments:                |           |          |            |            |                   |                                      |                        |               |                              |      |
|                          |           |          |            |            |                   |                                      |                        |               |                              |      |
| Comments:                |           |          |            |            |                   |                                      |                        |               |                              |      |
|                          |           |          |            |            |                   |                                      |                        |               |                              |      |
| Comments:                |           |          |            |            |                   |                                      |                        |               |                              |      |
|                          |           |          |            |            |                   |                                      |                        |               |                              |      |
| Comments:                |           |          |            |            |                   |                                      |                        |               |                              |      |
|                          |           |          |            |            |                   |                                      |                        |               |                              |      |



|           |  |  |  |  |  |  |  |  |  |  |
|-----------|--|--|--|--|--|--|--|--|--|--|
| Comments: |  |  |  |  |  |  |  |  |  |  |
|           |  |  |  |  |  |  |  |  |  |  |
| Comments: |  |  |  |  |  |  |  |  |  |  |
|           |  |  |  |  |  |  |  |  |  |  |
| Comments: |  |  |  |  |  |  |  |  |  |  |

| Drop #    | Sonde ID | Time UTC | Lat (°N/S) | Lon (°E/W) | Sfc Pressure (mb) | Lowest Wind Direction/Speed (deg/kt) | Lowest Wind Height (m) | AXBT SST (°C) | Eye, Eyewall, Rainband, etc. | Ob # |
|-----------|----------|----------|------------|------------|-------------------|--------------------------------------|------------------------|---------------|------------------------------|------|
|           |          |          |            |            |                   |                                      |                        |               |                              |      |
| Comments: |          |          |            |            |                   |                                      |                        |               |                              |      |
|           |          |          |            |            |                   |                                      |                        |               |                              |      |
| Comments: |          |          |            |            |                   |                                      |                        |               |                              |      |
|           |          |          |            |            |                   |                                      |                        |               |                              |      |
| Comments: |          |          |            |            |                   |                                      |                        |               |                              |      |
|           |          |          |            |            |                   |                                      |                        |               |                              |      |
| Comments: |          |          |            |            |                   |                                      |                        |               |                              |      |
|           |          |          |            |            |                   |                                      |                        |               |                              |      |
| Comments: |          |          |            |            |                   |                                      |                        |               |                              |      |
|           |          |          |            |            |                   |                                      |                        |               |                              |      |
| Comments: |          |          |            |            |                   |                                      |                        |               |                              |      |
|           |          |          |            |            |                   |                                      |                        |               |                              |      |

|           |  |  |  |  |  |  |  |  |  |  |
|-----------|--|--|--|--|--|--|--|--|--|--|
| Comments: |  |  |  |  |  |  |  |  |  |  |
|           |  |  |  |  |  |  |  |  |  |  |
| Comments: |  |  |  |  |  |  |  |  |  |  |
|           |  |  |  |  |  |  |  |  |  |  |
| Comments: |  |  |  |  |  |  |  |  |  |  |
|           |  |  |  |  |  |  |  |  |  |  |
| Comments: |  |  |  |  |  |  |  |  |  |  |

## AVAPS Drop Log

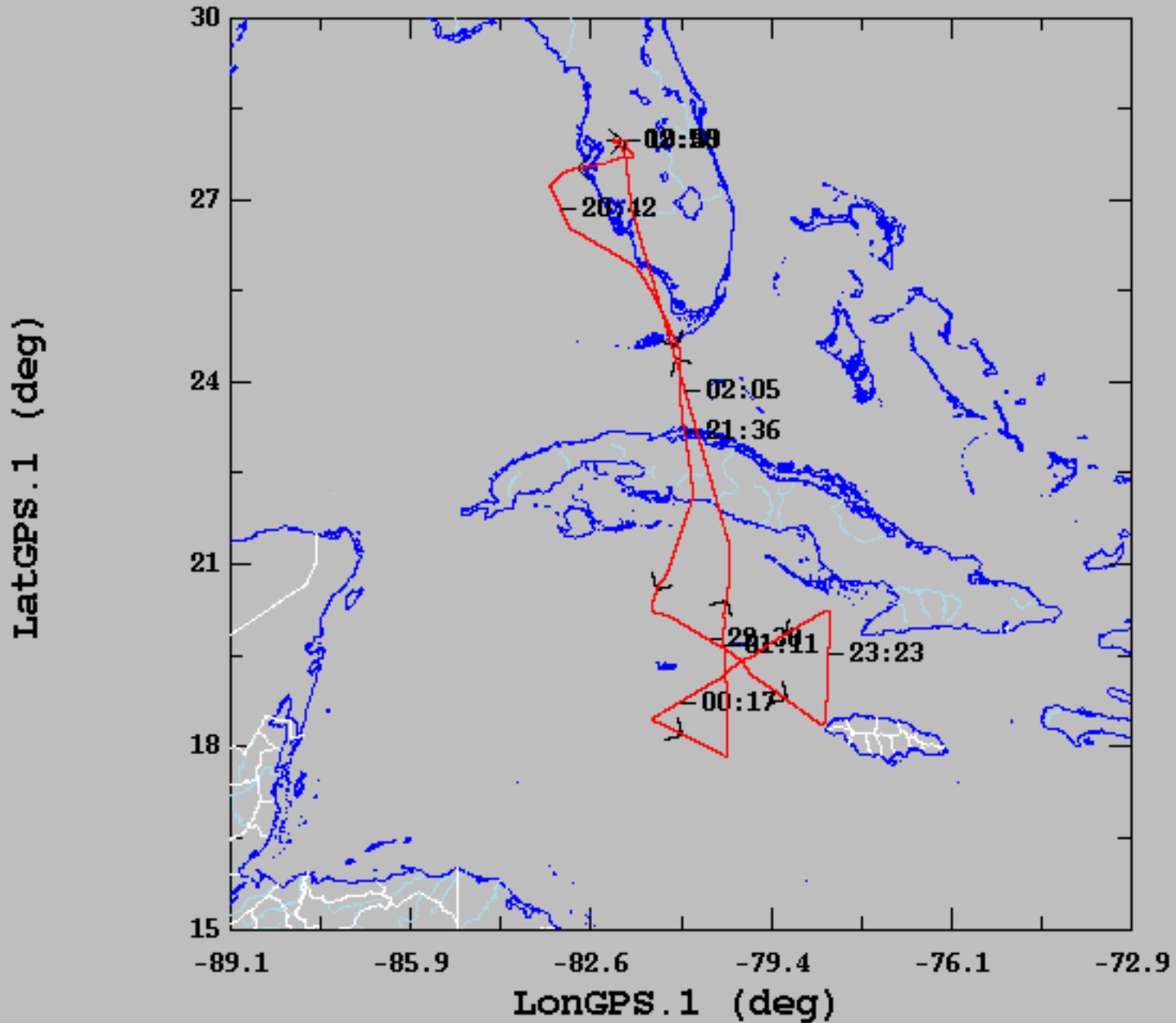
Project: Hurricane 2024      Mission: TS Raphael      Flight ID: 20241105H1  
 Take Off: 20/3Z      Landing: \_\_\_\_\_      Flt Dir: Way 2/Engbert      Launcher S/N: 2864

| Drop # | Sonde Serial # | Rcvr # | Press Offset | Launch Time | Operator | Charge \$\$ To | Comments     | Good ? |
|--------|----------------|--------|--------------|-------------|----------|----------------|--------------|--------|
| 1      | 233950684      | 1      | +0.3         | 2049        | BRD      | ADC            | NO BIKSWFT   | ✓      |
| 2      | 233350176      | 2      | -1.0         | 2049        | BRD      | ADC            | NO BIKSWFT   | ✓      |
| 3      | 233667950      | 3      | -0.8         | 2109        | BRD      | ADC            | N43 BS       | ✓      |
| 4      | 234220758      | 4      | -0.1         | 2109        | BRD      | ADC            | N43 BS       | ✓      |
| 5      | 233540565      | 5      | +0.1         | 2125        | BRD      | ADC            | N42 BS       | ✓      |
| 6      | 233410821      | 6      | -0.5         | 2125        | BRD      | ADC            | N42 BS       | ✓      |
| 7      | 233950677      | 1      | -0.8         | 2214        | BRD      | NWS            | IP1          | ✓      |
| 8      | 233610827      | 2      | -0.6         | 2229        | BRD      | NWS            | MP11         | ✓      |
| 9      | 233950696      | 3      | -0.8         | 2245        | BRD      | NWS            | CP1          | ✓      |
| 10     | 234220220      | 4      | -1.1         | 2256        | BRD      | NWS            | MP01         | ✓      |
| 11     | 2339501666     | 5      | -0.7         | 2311        | BRD      | NWS            | EP1          | ✓      |
| 12     | 233650325      | 6      | -0.8         | 2334        | BRD      | NWS            | IP2          | ✓      |
| 13     | 234220080      | 7      | -0.8         | 2345        | BRD      | NWS            | MP11         | ✓      |
| 14     | 234850639      | 8      | -8.9         | 2359        | BRD      | NWS            | CP FAST FALL | 0      |
| 15     | 234220158      | 1      | -0.6         | 0000        | BRD      | NWS            | CP 2-2       | ✓      |
| 16     | 233824686      | 2      | -0.8         | 0011        | BRD      | NWS            | MP02         | ✓      |
| 17     | 235144616      | 3      | -0.7         | 0024        | BRD      | NWS            | EP2          | ✓      |
| 18     | 234850637      | 4      | -0.8         | 0040        | JW       | NWS            | IP3          | ✓      |
| 19     | 234220077      | 5      | -1.0         | 0057        | JW       | NWS            | MP13         | ✓      |
| 20     | 234150034      | 6      | -1.0         | 0108        | JW       | NWS            | CP3          | ✓      |
| 21     | 234220163      | 7      | -1.0         | 0122        | JW       | NWS            | MP03         | ✓      |
| 22     | 234220954      | 8      | -0.6         | 0135        | JW       | NWS            | EP3          | ✓      |
| 23     |                |        |              |             |          |                |              |        |
| 24     |                |        |              |             |          |                |              |        |
| 25     |                |        |              |             |          |                |              |        |
| 26     |                |        |              |             |          |                |              |        |
| 27     |                |        |              |             |          |                |              |        |
| 28     |                |        |              |             |          |                |              |        |
| 29     |                |        |              |             |          |                |              |        |
| 30     |                |        |              |             |          |                |              |        |
| 31     |                |        |              |             |          |                |              |        |

Totals: 22 Sondes      21 Good      1 Fast Fall

CHARGES: 6 to ADC      16 to NWS

11/05/2024, 18:55:25-26:58:46



|                            | mean   | sigma | min    | max    |
|----------------------------|--------|-------|--------|--------|
| — LatGPS.1 (deg), 1 s/sec  | 22.96  | 3.67  | 17.85  | 27.99  |
| — LongGPS.1 (deg), 1 s/sec | -80.91 | 1.18  | -83.34 | -78.29 |