

# U.S. Department of Commerce / NOAA / OMAO / Aircraft Operations Center - N43RF Manifest

| FLIGHT INFORMATION                                     |            |                            |       | CREW MANIFEST |             |             | MISSION INFORMATION     |            |                   |          |      |
|--------------------------------------------------------|------------|----------------------------|-------|---------------|-------------|-------------|-------------------------|------------|-------------------|----------|------|
| FLT ID:                                                | 2022051811 | FLT #:                     | 2     | AC:           | Doremus     | Scientists: | Pressure                |            | Dropsondes        |          |      |
| From:                                                  | KADW       | ETD:                       | 1700Z | CP(s):        | Legidakes   |             | A/C Takeoff             |            | Good              | Bad      | Sent |
| To:                                                    | KLAL       | ETA:                       | 2000Z |               | Kerns       |             |                         |            | 0                 | 0        | 0    |
| Block Time                                             |            | Flight Time                |       | NAV:          | Urato       |             | ASOS Takeoff            |            | BTs               |          |      |
| In:                                                    | 1:09       | Land:                      | 1:01  | FE(s):        | Stokes      |             |                         |            | Good              | Bad      | Sent |
|                                                        |            |                            |       |               | LaLonde     |             |                         |            |                   |          |      |
| Out:                                                   | 22:30      | T/O:                       | 22:38 | FD(s):        | Hathaway    |             | A/C Land                |            | 0                 | 0        | 0    |
| Total:                                                 | 2.7        | Total:                     | 2.4   | SSA:          | Richards, T | Visitors:   | ASOS Land               |            |                   |          |      |
| Sponsoring Org:                                        |            | AOC                        |       | AVAPS:        |             |             | Storm Number ID:        |            | N/A               |          |      |
| Program:                                               |            | PFT                        |       | SEB:          |             |             | (ie: AL072012)          |            |                   |          |      |
| Purpose:                                               |            | Sci Shakedown / Exec Brief |       | MX:           |             |             | TCPD/WSPD Mission       |            | NOAA3 WXWXA TRAIN |          |      |
|                                                        |            |                            |       |               |             |             | (ie: NOAA2 2418A SANDY) |            |                   |          |      |
| AS REQUIRED BY ORM                                     |            |                            |       | Y             | N           |             |                         | Fix Number | Obs Number        | Fix Time | SLP  |
| VOLCANIC ASH                                           |            |                            |       |               | X           |             |                         | 1          |                   |          |      |
| SCIENCE MISSION WITHIN BDRY LAYER                      |            |                            |       | X             |             |             |                         |            |                   |          |      |
| LACK OF PRECIPITATION                                  |            |                            |       | X             |             |             |                         |            |                   |          |      |
| RELATIVE HUMIDITY ≥ 80%                                |            |                            |       | X             |             |             |                         | 2          |                   |          |      |
| LARGE AIR-SEA TEMP GRADIENT                            |            |                            |       |               | X           |             |                         |            |                   |          |      |
| HIGH SURFACE WINDS                                     |            |                            |       |               | X           |             |                         |            |                   |          |      |
| LONG FETCH / DURATION OF SFC WND                       |            |                            |       |               | X           |             |                         | 3          |                   |          |      |
| SEA SALT ACCRETION FORECAST                            |            |                            |       |               | X           |             |                         |            |                   |          |      |
| SEA SALT ACCRETION OBSERVED                            |            |                            |       |               | X           |             |                         |            |                   |          |      |
|                                                        |            |                            |       |               |             |             |                         | 4          |                   |          |      |
|                                                        |            |                            |       |               |             |             |                         | Pennies:   |                   |          |      |
| *Highlighted items must be completed before departure. |            |                            |       |               |             |             |                         |            |                   |          |      |
| Remarks:                                               |            |                            |       |               |             |             |                         |            |                   |          |      |
|                                                        |            |                            |       |               |             |             |                         |            |                   |          |      |
|                                                        |            |                            |       |               |             |             |                         |            |                   |          |      |

## P-3 QC Checklist

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

|                     |            |                     |           |           |
|---------------------|------------|---------------------|-----------|-----------|
| Flight ID:          | 2022051811 | Pressure Comparison |           |           |
| Flight Director(s): | Hathaway   |                     | T/O       | Land      |
| Mission:            | Ferry      | Aircraft            | 1002.3 mb | N/A       |
| UWZ.d mean:         | -0.06      | Tower               | 1001.8 mb | 1010.9 mb |

|                      | Raw 1Hz Mean File Parameters                                 |                                                              |                                                              |                                               |  | C File Parameters                                          |                                          |
|----------------------|--------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------|--|------------------------------------------------------------|------------------------------------------|
| ✓ Accelerometer      | ✓ AccAXI.1<br>✓ AccAXI.2<br>✓ AccAXI-GPS.1<br>✓ AccAXI-GPS.2 | ✓ AccAYI.1<br>✓ AccAYI.2<br>✓ AccAYI-GPS.1<br>✓ AccAYI-GPS.2 | ✓ AccAZI.1<br>✓ AccAZI.2<br>✓ AccAZI-GPS.1<br>✓ AccAZI-GPS.2 | ✓ AccZfilter-GPS.1<br>✓ AccZfilter-GPS.2      |  | ✓ AccZref                                                  |                                          |
| ✓ Altitude           | ✓ AltGPS.1<br>✓ AltGPS.2<br>✓ AltGPS.3<br>✓ AltGPS.4         | ✓ AltI-GPS.1<br>✓ AltI-GPS.2                                 | ✓ AltPaADDU.1<br>✓ AltBCADDU.1                               | ✓ AltRA.1<br>✓ AltRA.2                        |  | ✓ ALTref<br>✓ ALTPA.d<br>✓ ALTGA.d                         | ✓ AltRA1.c<br>✓ AltRA2.c                 |
| ✓ Ground Speed       | ✓ GsXI-GPS.1<br>✓ GsXI-GPS.2                                 | ✓ GsYI-GPS.1<br>✓ GsYI-GPS.2                                 | ✓ GsZI-GPS.1<br>✓ GsZI-GPS.2                                 |                                               |  | ✓ GSXref<br>✓ GSYref<br>✓ GSZref                           |                                          |
| ✓ Lat / Lon          | ✓ LatGPS.1<br>✓ LatGPS.2<br>✓ LatGPS.3<br>✓ LatGPS.4         | ✓ LatI-GPS.1<br>✓ LatI-GPS.2                                 | ✓ LonGPS.1<br>✓ LonGPS.2<br>✓ LonGPS.3<br>✓ LonGPS.4         | ✓ LonI-GPS.1<br>✓ LonI-GPS.2                  |  | ✓ LATref<br>✓ LONref                                       |                                          |
| ✓ Pressure           | ✓ PDALPHA.1<br>✓ PDALPHA.2<br>✓ PDBETA.1<br>✓ PDBETA.2       | ✓ PQALPHA.1<br>✓ PQBETA.1                                    | X PQM.1<br>✓ PQM.2<br>✓ PQM.3<br>✓ PQM.4                     | X PSM.1<br>✓ PSM.2<br>✓ PTM.1                 |  | ✓ PDALPHAref<br>✓ PDBETAref<br>✓ PQALPHAref<br>✓ PQBETAref | ✓ PQMref<br>✓ PQ.c<br>✓ PSMref<br>✓ PS.c |
| ✓ Air Speed          | ✓ CasADDU.1                                                  | ✓ TasADDU.1                                                  | ✓ IasADDU.1                                                  |                                               |  | ✓ IAS.d                                                    | ✓ TAS.d                                  |
| ✓ Pitch / Roll       | X PitchI.1<br>X PitchI.2<br>PitchI.3                         | ✓ PitchRatel.1<br>✓ PitchRatel.2<br>PitchRatel.3             | X RollI.1<br>X RollI.2<br>RollI.3                            | ✓ RollRatel.1<br>✓ RollRatel.2<br>RollRatel.3 |  | ✓ PITCHref<br>✓ ROLLref                                    |                                          |
| ✓ Temp / Dewpt       | ✓ TTM.1<br>X TTM.2<br>X TTM.3                                | X TDM.1<br>✓ TDM.2<br>TDM.3                                  | ✓ TRadD.1<br>✓ TRadS.1<br>TRadU.1                            |                                               |  | X TD.c<br>✓ TDMref                                         | ✓ TTMref<br>✓ TA.d                       |
| ✓ Misc. (Must check) |                                                              |                                                              |                                                              |                                               |  | ✓ UWZ.d<br>✓ DPJ_WSZ<br>✓ HUM                              | ✓ WS.d<br>✓ WD.d                         |

| FLID_Mission_Documents.pdf: |                                                  |
|-----------------------------|--------------------------------------------------|
| ✓                           | Error Summary                                    |
| ✓                           | Crew Manifest                                    |
| ✓                           | QC Checklist                                     |
| ✓                           | Dropwindsonde Log(s) - AVAPS and FD if completed |
| ✓                           | Flight Track                                     |
| ✓                           | Miscellaneous FD Notes                           |

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

### NOTES:

- Slight oscillation apparent at finer scales in variables: PitchI.1, PitchI.2, RollI.1, RollI.2, PSM.1, PQM.1
- TTM.2, TDM.1, TD.c at take off noticed slight oscillation at finer scales.
- AltRa2.c was zero and AltRa.2 was NaNed out for first 2.25 hours of flight
- Difference of roughly 40 mb between PDAAlpha.1 and PDAAlpha.2
- PQM.1 approximately 15-20 mb higher than rest of PQMs.

N43RF ERROR SUMMARY  
20220518I1

Flight ID: 20220518I1

| Sensor or System<br>-----            | Number or Name<br>----- |
|--------------------------------------|-------------------------|
| 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/2022/MET/20220518I1

| Local Met Data       | Takeoff KADW (2238Z) | Landing KLAL (1955Z) |
|----------------------|----------------------|----------------------|
| Dynamic Corrections  |                      | Yes                  |
| AttackAngleIntercept |                      | 0.131251             |
| AttackAngleSlope     |                      | 6.02327              |
| SlipAngleIntercept   |                      | 0.23                 |
| SlipAngleSlope       |                      | 7.02537              |

Notes:

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

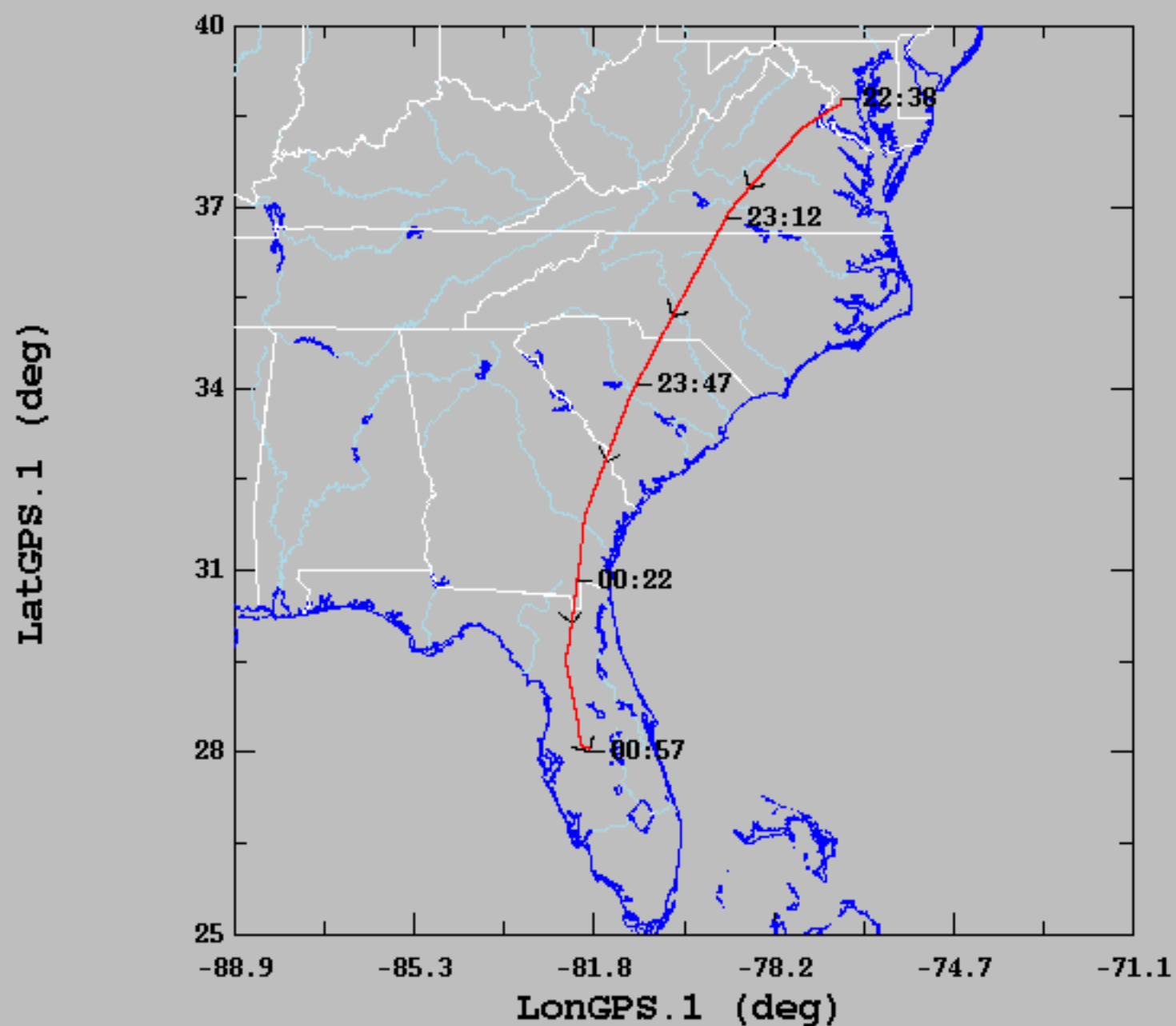
Takeoff/Landing data: Data during landing and takeoff are potentially suspect. It is recommended that ground data not be used for scientific analysis.

| Expendable Type<br>----- | # deployed<br>----- | # good<br>----- | # transmitted<br>----- |
|--------------------------|---------------------|-----------------|------------------------|
| Dropsondes               | 0                   | 0               | 0                      |
| Test sondes              | 0                   | 0               | 0                      |
| AXBTS                    | 0                   | 0               | 0                      |
| AXCPs                    | 0                   | 0               | 0                      |
| AXCTDs                   | 0                   | 0               | 0                      |
| UAS                      | 0                   | 0               | 0                      |

Flight Director: Hathaway  
Phone #: 863-500-3911

ACAT-4 Version = 7.4

2022-05-18, 22:38:00-24:57:20



|                          | mean   | sigma | min    | max    |
|--------------------------|--------|-------|--------|--------|
| LatGPS.1 (deg), 1 s/sec  | 33.78  | 3.35  | 28.02  | 38.79  |
| LongGPS.1 (deg), 1 s/sec | -80.45 | 1.69  | -82.33 | -76.87 |