

N43RF ERROR SUMMARY  
20220930I1

Flight ID: 20220930I1

| 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/20220930I1

| Local Met Data       | Takeoff KEFD (1555Z) | Landing KLAL (0000Z) |
|----------------------|----------------------|----------------------|
| Dynamic Corrections  |                      | Yes                  |
| AttackAngleIntercept |                      | 0.126754             |
| AttackAngleSlope     |                      | 5.36078              |
| SlipAngleIntercept   |                      | 0.2                  |
| SlipAngleSlope       |                      | 6.67768              |

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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.

GPS.4 unavailable. 15-20 mb differential between PSM.1 and PSM.2. PSM.2 appears more representative. PitchI.3 and RollI.3 unavailable. Variability in remaining pitch and roll quantities in real, the aircraft was flown without autopilot. TTM.2 exhibits electrical oscillations. TTM.3 inoperative. TDM.3 inoperative. TRadU.1 inoperative.

| 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: Carpenter  
Phone #: 863-500-3901

ACAT-4 Version = 7.4

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

| FLIGHT INFORMATION                |            |               |       | CREW MANIFEST |            |                                                        | MISSION INFORMATION     |                         |            |                   |      |
|-----------------------------------|------------|---------------|-------|---------------|------------|--------------------------------------------------------|-------------------------|-------------------------|------------|-------------------|------|
| FLT ID:                           | 20220930I1 | FLT #:        | 22-   | AC:           | Mitchell   | Scientists:                                            | Pressure                |                         | Dropsondes |                   |      |
| From:                             | KEFD       | ETD:          | 1600Z | CP(s):        | Rannenberg | Paul Chang                                             | A/C Takeoff             | 1016.9                  | Good       | Bad               | Sent |
| To:                               | KLAL       | ETA:          | 2000Z |               | Keith      | Zorana Jelenak                                         |                         |                         | 0          | 0                 | 0    |
| Block Time                        |            | Flight Time   |       | NAV:          | Utama      |                                                        | ASOS Takeoff            | KEFD 1554Z<br>1017.1 mb | BTs        |                   |      |
| In:                               | 18:14      | Land:         | 18:06 | FE(s):        | Pittman    |                                                        | A/C Land                | N/A                     | Good       | Bad               | Sent |
| Out:                              | 15:45      | T/O:          | 15:56 | FD(s):        | Tyson      |                                                        |                         |                         | 0          | 0                 | 0    |
| Total:                            | 2.5        | Total:        | 2.2   | SSA:          | Richards   | Visitors:                                              | ASOS Land               | KLAL 1755Z<br>1004.2 mb |            |                   |      |
|                                   |            |               |       | AVAPS:        | Warnecke   |                                                        |                         |                         |            |                   |      |
| Sponsoring Org:                   |            | NWS/EMC       |       | SEB:          |            |                                                        | Storm Number ID:        |                         | N/A        |                   |      |
| Program:                          |            | PRX           |       |               |            |                                                        | (ie: AL072012)          |                         |            |                   |      |
| Purpose:                          |            | Repo. to KLAL |       |               |            |                                                        |                         | TCP0D/WSP0D Mission     |            | NOAA3 WXWXA TRAIN |      |
|                                   |            |               |       | MX:           | Sans Souci |                                                        | (ie: NOAA2 2418A SANDY) |                         |            |                   |      |
| AS REQUIRED BY ORM                |            |               |       | Y             | N          | REMARKS                                                | Fix Number              | Obs Number              | Fix Time   | SLP               |      |
| VOLCANIC ASH                      |            |               |       |               | X          |                                                        | 1                       |                         |            |                   |      |
| SCIENCE MISSION WITHIN BDRY LAYER |            |               |       |               | X          |                                                        |                         |                         |            |                   |      |
| LACK OF PRECIPITATION             |            |               |       | X             |            |                                                        | 2                       |                         |            |                   |      |
| RELATIVE HUMIDITY ≥ 80%           |            |               |       | X             |            |                                                        |                         |                         |            |                   |      |
| LARGE AIR-SEA TEMP GRADIENT       |            |               |       |               | X          |                                                        | 3                       |                         |            |                   |      |
| HIGH SURFACE WINDS                |            |               |       |               | X          |                                                        |                         |                         |            |                   |      |
| LONG FETCH / DURATION OF SFC WND  |            |               |       |               | X          |                                                        | 4                       |                         |            |                   |      |
| SEA SALT ACCRETION FORECAST       |            |               |       |               | X          |                                                        |                         |                         |            |                   |      |
| SEA SALT ACCRETION OBSERVED       |            |               |       |               | X          |                                                        | Pennies:                | N/A                     |            |                   |      |
|                                   |            |               |       |               |            | *Highlighted items must be completed before departure. |                         |                         |            |                   |      |
| Remarks:                          |            |               |       |               |            |                                                        |                         |                         |            |                   |      |
|                                   |            |               |       |               |            |                                                        |                         |                         |            |                   |      |
|                                   |            |               |       |               |            |                                                        |                         |                         |            |                   |      |

## P-3 QC Checklist

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

|                     |            |                     |                      |                      |
|---------------------|------------|---------------------|----------------------|----------------------|
| Flight ID:          | 20220930I1 | Pressure Comparison |                      |                      |
| Flight Director(s): | Carpenter  |                     | T/O                  | Land                 |
| Mission:            | Ferry      | Aircraft            | 1016.9               | N/A                  |
| UWZ.d mean:         | 0.03       | Tower               | KEFD 1554Z 1017.1 mb | KLAL 1755Z 1004.2 mb |

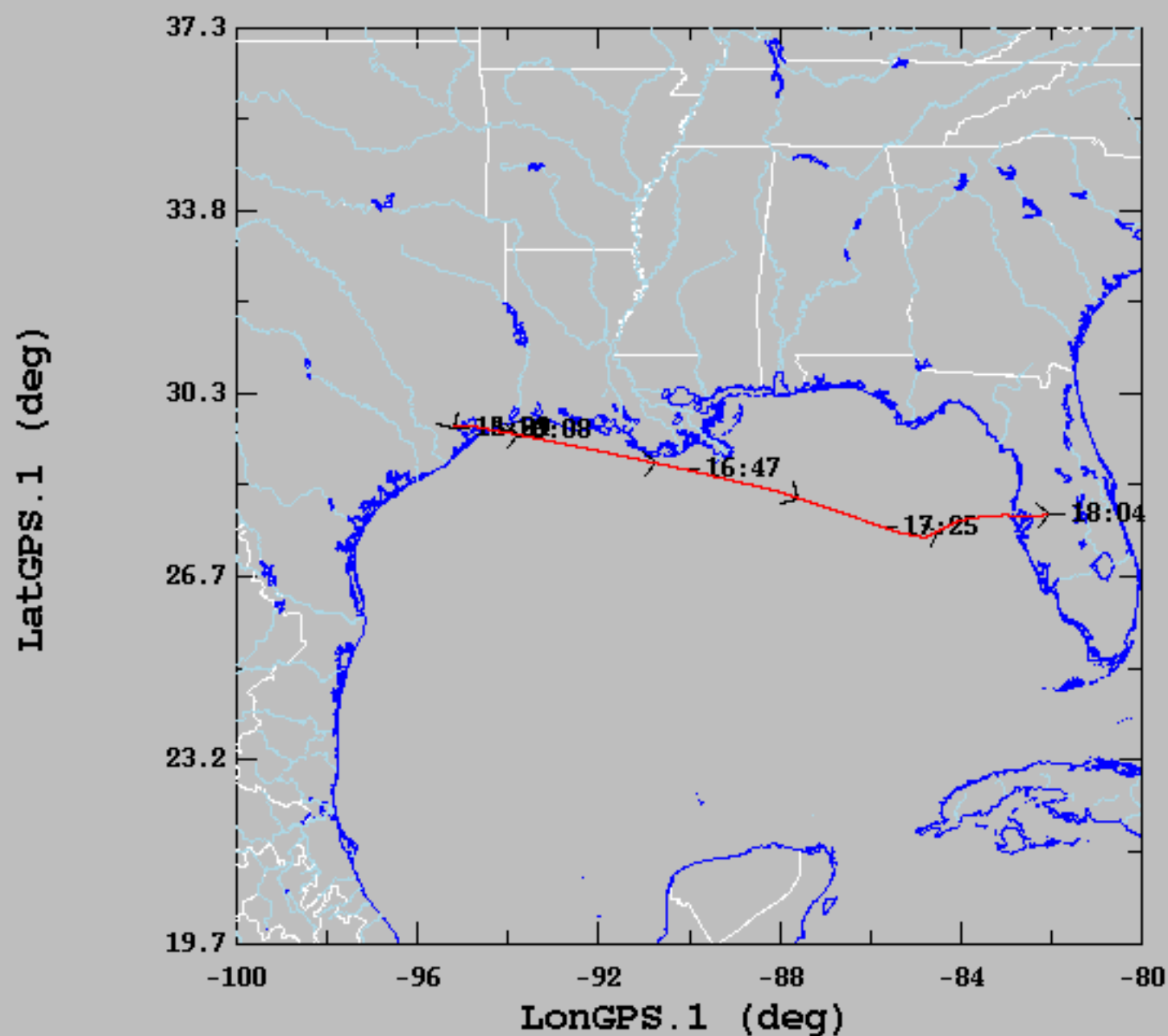
|                      | Raw 1Hz Mean File Parameters                                 |                                                              |                                                              |                                                 | C File Parameters                                          |                                          |
|----------------------|--------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------|------------------------------------------------------------|------------------------------------------|
| ✓ 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>X 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>X LatGPS.4         | ✓ LatI-GPS.1<br>✓ LatI-GPS.2                                 | ✓ LonGPS.1<br>✓ LonGPS.2<br>✓ LonGPS.3<br>X 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                                    | ✓ PQM.1<br>✓ PQM.2<br>✓ PQM.3<br>✓ PQM.4                     | ✓ PSM.1<br>✓ PSM.2<br>✓ PTM.1                   | ✓ PDLAPHAref<br>✓ PDBETAref<br>✓ PQALPHAref<br>✓ PQBETAref | ✓ PQMref<br>✓ PQ.c<br>✓ PSMref<br>✓ PS.c |
| ✓ Air Speed          | ✓ CasADDU.1                                                  | ✓ TasADDU.1                                                  | ✓ lasADDU.1                                                  |                                                 | ✓ IAS.d                                                    | ✓ TAS.d                                  |
| ✓ Pitch / Roll       | ✓ PitchI.1<br>✓ PitchI.2<br>X PitchI.3                       | ✓ PitchRateI.1<br>✓ PitchRateI.2<br>X PitchRateI.3           | ✓ RollI.1<br>✓ RollI.2<br>X RollI.3                          | ✓ RollRateI.1<br>✓ RollRateI.2<br>X RollRateI.3 | ✓ PITCHref<br>✓ ROLLref                                    |                                          |
| ✓ Temp / Dewpt       | ✓ TTM.1<br>✓ TTM.2<br>X TTM.3                                | ✓ TDM.1<br>✓ TDM.2<br>X TDM.3                                | ✓ TRadD.1<br>✓ TRadS.1<br>X TRadU.1                          |                                                 | ✓ 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                                     |
| X Dropwindsonde Log(s) - AVAPS and FD if completed |
| ✓ Flight Track                                     |
| X Miscellaneous FD Notes                           |

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

| NOTES:                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>GPS.4 unavailable.</p> <p>15-20 mb differential between PSM.1 and PSM.2. PSM.2 appears more representative.</p> <p>PitchI.3 and RollI.3 unavailable. Variability in remaining pitch and roll quantities is real, the aircraft was flown without autopilot.</p> <p>TTM.2 exhibits electrical oscillations. TTM.3 inoperative.</p> <p>TDM.3 inoperative.</p> <p>TRadU.1 inoperative.</p> |

2022-09-30, 14:51:12-18:04:13



|                         | mean   | sigma | min    | max    |
|-------------------------|--------|-------|--------|--------|
| LatGPS.1 (deg), 1 s/sec | 28.90  | 0.76  | 27.49  | 29.65  |
| LonGPS.1 (deg), 1 s/sec | -90.81 | 4.52  | -95.17 | -82.00 |