

N43RF ERROR SUMMARY  
20230829I2

Flight ID: 20230829I2

| 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/2023/MET/20230829I2

| Local Met Data       | Takeoff KFL (2038Z) | Landing KFL (0248Z) |
|----------------------|---------------------|---------------------|
| Dynamic Corrections  |                     | Yes                 |
| AttackAngleIntercept |                     | 0.050058            |
| AttackAngleSlope     |                     | 5.32015             |
| SlipAngleIntercept   |                     | 0.165               |
| SlipAngleSlope       |                     | 6.66754             |

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.

I.3 for Pitch and Roll is not operational  
 TTM.3 has erroneous data throughout the flight and should not be used  
 TRadU.1 has erroneous data throughout the flight and should not be used  
 TDM.2 and TDM.3 has erroneous data throughout the flight and should not be used  
 PDALPHAref, PDBETAref, PQALPHAref, PQBETAref, and DPJ\_WSZ are not provided since \_AC file is not produced; all other 'C' file parameters checked are from the \_A file

| Expendable Type | # deployed | # good | # transmitted |
|-----------------|------------|--------|---------------|
| Dropsondes      | 24         | 24     | 24            |
| Test sondes     | 0          | 0      | 0             |
| AXBTS           | 5          | 3      | 3             |
| AXCPs           | 0          | 0      | 0             |
| AXCTDs          | 0          | 0      | 0             |
| UAS             | 0          | 0      | 0             |

Flight Director: Zawislak / Lundry  
Phone #: 305-707-4359

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:                           | 20230829I2                | FLT #:      | FY23-         | AC:           | Abitbol    | Scientists:           | Pressure             |                         | Dropsondes         |                             |          |
| From:                             | KFLL                      | ETD:        | 1630L / 2030Z | CP(s):        | Rannenberg | Jun Zhang (HRD)       | A/C Takeoff          | 1009.1                  | Good               | Bad                         | Sent     |
| To:                               | KFLL                      | ETA:        | 0030L / 0430Z |               | Keith      | Sim Aberson (HRD)     |                      |                         | ASOS Takeoff       | 1009.0                      | 24       |
| Block Time                        |                           | Flight Time |               | NAV:          | Utama      | Jason Sippel (HRD)    | A/C Land             | 1009.4                  |                    |                             | BTs      |
| Out:                              | 20:33                     | T/O:        | 20:39         | FE(s):        | Stokes     |                       |                      |                         | ASOS Land          | 1009.4                      | Good     |
| In:                               | 3:35                      | Land:       | 3:27          | FD(s):        | Wysinger   |                       | ASOS Land            | 1009.4                  |                    |                             | 3        |
| Total:                            | 7.0                       | Total:      | 6.8           | SSA:          | McAlister  | Visitors:             |                      |                         | Storm Number ID:   |                             | AL102023 |
| Sponsoring Org:                   | HX - NHC/EMC              |             |               | AVAPS:        | Underwood  | Dean Legidakes (OMAO) | (ie: AL072012)       |                         |                    |                             |          |
| Program:                          | PRX                       |             |               | SEB:          |            | Nicole LeBoeuf (NOS)  | TCPOD/WSPOD Mission  |                         | NOAA3 1210A IDALIA |                             |          |
| Purpose:                          | TDR Mission + HRD Modules |             |               |               |            |                       | Jackson Ludtke (AOC) | (ie: NOAA2 2418A SANDY) |                    |                             |          |
|                                   |                           |             |               | MX:           |            | Peyton Collado (NHC)  | OBSERVATIONS         |                         |                    |                             |          |
| AS REQUIRED BY ORM                |                           |             | Y             | N             | REMARKS    |                       | Fix Number           | Obs Number              | Fix Time           | SLP                         |          |
| VOLCANIC ASH                      |                           |             |               | x             |            |                       | 1                    | 0B06<br>26.28N, 84.74W  | 21:44:51           | 968 mb<br>Drop: 065 / 04 kt |          |
| SCIENCE MISSION WITHIN BDRY LAYER |                           |             |               | x             |            |                       |                      |                         |                    |                             |          |
| LACK OF PRECIPITATION             |                           |             |               | x             |            |                       | 2                    | 0B15<br>26.67N, 84.66W  | 23:00:55           | 965 mb<br>Drop: 340 / 02 kt |          |
| 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:             | 6 x Cat 2               |                    |                             |          |

\*Highlighted items must be completed before departure.

Remarks:

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

## P-3 QC Checklist

|                    |  |
|--------------------|--|
| Overall Assessment | Minor instrument issue(s) - no mission impact. |
|--------------------|--|

|                     |                    |
|---------------------|--------------------|
| Flight ID:          | 20230829I2         |
| Flight Director(s): | Zawislak / Lundry  |
| Mission:            | Tasked/Operational |
| UWZ.d mean:         | -0.08              |

| Pressure Comparison |        |                     |
|---------------------|--------|---------------------|
|                     | T/O    | Land                |
| Aircraft            | 1009.1 | No good measurement |
| Tower               | 1009.0 | 1009.4              |

|                      | 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                                    | ✓ PQM.1<br>✓ PQM.2<br>✓ PQM.3<br>✓ PQM.4                     | ✓ PSM.1<br>✓ PSM.2<br>✓ PTM.1                   | X PDLAPHaref<br>X PDBETAref<br>X PQALPHaref<br>X 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>X 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>X 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         | <input checked="" type="checkbox"/> |
| Errors (note) | <input checked="" type="checkbox"/> |

| NOTES:   |
|--|
| <p>I.3 for Pitch and Roll is not operational</p> <p>TTM.3 has erroneous data throughout the flight and should not be used</p> <p>TRadU.1 has erroneous data throughout the flight and should not be used</p> <p>TDM.2 and TDM.3 has erroneous data throughout the flight and should not be used</p> <p>PDALPHaref, PDBETAref, PQALPHaref, PQBETAref, and DPJ_WSZ are not provided since _AC file is not produced; all other 'C' file parameters checked are from the _A file</p> |

AVAPS Drop Log

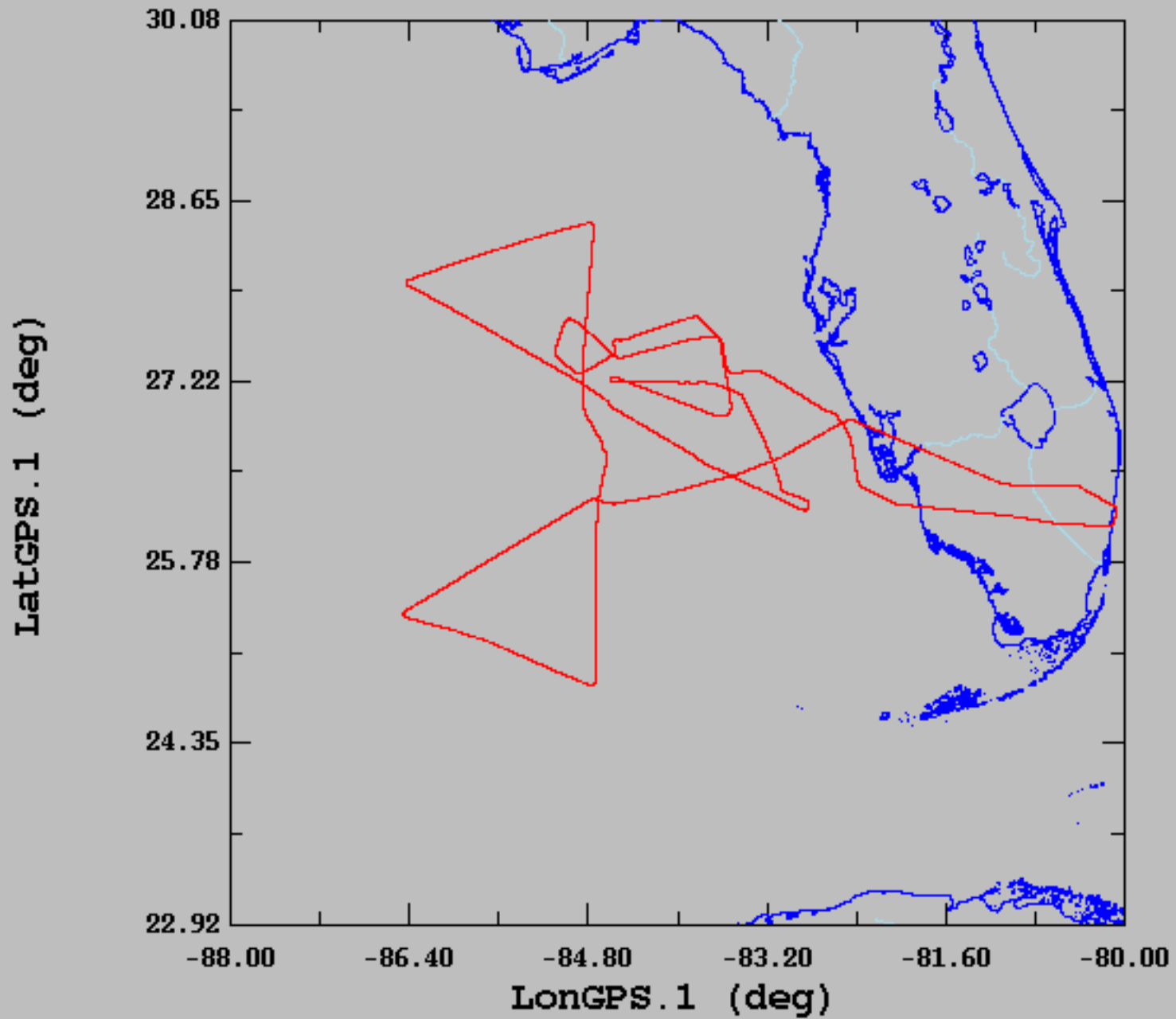
Project: FY23 Hurricanes Mission: Hurricane Idalia Flight ID: 20230829I2

Take Off: 2039Z Landing: \_\_\_\_\_ Flt Dir: JZ/Lundy Launcher S/N: \_\_\_\_\_

| Drop # | Sonde Serial #       | Rcvr #       | Press Offset    | Launch Time      | Operator | Charge \$\$ To | Comments                  | Good ? |
|--------|----------------------|--------------|-----------------|------------------|----------|----------------|---------------------------|--------|
| 1      | 221950412            | 1            | -0.6            | 2110Z            | NGU      | NWS            | IP, NE                    | ✓      |
| 2      | 221836427            | 2            | -1.1            | 2124Z            | }        | }              | Mid, combo                | ✓      |
| 3      | 220610210            | 3            | -1.0            | 2137Z            |          |                | RMW                       | ✓      |
| 4      | 220420540            | 4            | -1.2            | 2140Z            |          |                | RMW 2                     | ✓      |
| 5      | 220750398            | 5            | -1.0            | 2140Z            |          |                | Center 1                  | ✓      |
| 6      | 222021167            | 6            | -1.0            | 2147Z            |          |                | RMW                       | ✓      |
| 7      | 221950754            | 7            | -0.7            | 2158Z            |          |                | Mid                       | ✓      |
| 8      | 221950453            | 8            | -0.8            | 2212Z            |          |                | EP, combo                 | ✓      |
| 9      | 221750154            | 1            | -0.7            | 2235Z            |          |                | IP 2, combo, S            | ✓      |
| 10     | 221950409            | 2            | -0.8            | 2248Z            |          |                | Mid                       | ✓      |
| 11     | 221950413            | 3            | -1.0            | <del>2301Z</del> |          |                | RMW                       | ✓      |
| 12     | 221436450            | 4            | -1.0            | 2301Z            |          |                | center 2, <del>comb</del> | ✓      |
| 13     | 221210623            | 5            | -0.3            | 2303Z            |          |                | RMW                       | ✓      |
| 14     | 221236710            | 6            | -1.0            | 2313Z            |          |                | Mid                       | ✓      |
| 15     | 221220236            | 7            | 0.0             | 2325Z            |          |                | EP, combo                 | ✓      |
| 16     | 220430183            | 8            | -1.0            | 2348Z            |          |                | IP 3, NW                  | ✓      |
| 17     | 220440147            | 1            | -0.7            | <del>0002Z</del> |          |                | Mid                       | ✓      |
| 18     | 221220359            | 2            | -0.5            | 0014Z            |          |                | RMW                       | ✓      |
| 19     | 220436748            | 3            | -0.8            | 0017Z            |          |                | center #3                 | ✓      |
| 20     | 221840072            | 4            | -0.8            | 0020Z            |          |                | RMW                       | ✓      |
| 21     | 221430153            | 5            | -0.6            | 0030Z            |          |                | Mid                       | ✓      |
| 22     | 221840068            | 6            | -1.1            | 0046Z            |          |                | NWS                       | EP     |
| 23     | 221150722            | 7            | -0.8            | 0119Z            | HRD      | RMW, OB        | ✓                         |        |
| 24     | <del>220750616</del> | <del>8</del> | <del>-1.0</del> | <del>0148Z</del> |          |                |                           |        |
| 25     | <del>220460021</del> | <del>7</del> | <del>-0.8</del> |                  |          |                |                           |        |
| 26     | <del>221210174</del> | <del>2</del> | <del>-0.5</del> |                  |          |                |                           |        |
| 27     | <del>220460023</del> | <del>3</del> | <del>-0.8</del> |                  |          |                |                           |        |
| 28     |                      |              |                 |                  |          |                |                           |        |
| 29     |                      |              |                 |                  |          |                |                           |        |
| 30     |                      |              |                 |                  |          |                |                           |        |
| 31     |                      |              |                 |                  |          |                |                           |        |

24 sondes sent

08/29/2023, 18:47:27-27:26:31



|                           | mean   | sigma | min    | max    |
|---------------------------|--------|-------|--------|--------|
| — LatGPS.1 (deg), 1 s/sec | 26.62  | 0.78  | 24.81  | 28.47  |
| — LonGPS.1 (deg), 1 s/sec | -83.13 | 2.04  | -86.45 | -80.07 |