

N42RF ERROR SUMMARY  
20190901H1

Flight ID: 20190901H1

| 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.2                   |
| 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/2019/MET/20190901H1

| Local Met Data        | Takeoff KLAL (1204Z) | Landing KMSY (1800Z) |
|-----------------------|----------------------|----------------------|
| Dynamic Corrections   |                      | Yes                  |
| AttackAngleIntercept  |                      | 2.27641              |
| AttackAngleSlope      |                      | 6.01899              |
| SlipAngleIntercept    |                      | 0.232                |
| SlipAngleSlope        |                      | 7.17429              |
| AttackAngleIntercept2 |                      | 2.06387              |
| AttackAngleSlope2     | 6.01177              |                      |
| SlipAngleIntercept2   |                      | 0.195                |
| SlipAngleSlope2       |                      | 6.67434              |

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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.

PDAlpha.2 INOP for entire mission

PDBeta.2 INOP for entire mission

PQM.1 failed during the transit back to home station

QC accomplished by M Holmes

TDM.1 unrepresentative for large portion of the flight.

None of these instrument failures affected the realtime dataset or the post processed dataset.

| Expendable Type | # deployed | # good | # transmitted |
|-----------------|------------|--------|---------------|
| -----           | -----      | -----  | -----         |
| Dropsondes      | 27         | 25     | 25            |
| Test sondes     | 0          | 0      | 0             |
| AXBTs           | 0          | 0      | 0             |
| AXCPs           | 0          | 0      | 0             |
| AXCTDs          | 0          | 0      | 0             |
| UAS             | 0          | 0      | 0             |

Flight Director: Sears  
Phone #: NA

ACAT-4 Version = 7.3

## P-3 QC Checklist

|                     |            |
|---------------------|------------|
| Flight ID:          | 20190901H1 |
| Flight Director(s): | Sears      |
| UWZ.d mean:         | -0.01 m/s  |

| Pressure Comparison |        |      |
|---------------------|--------|------|
|                     | T/O    | Land |
| Aircraft            | 1009.5 | --   |
| Tower               | 1010.0 |      |

|                      | 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           | ✓ PDLPHA.1<br>✗ PDLPHA.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                                                  | ✓ IasADDU.1                                                  |                                                 | ✓ IAS.d                                                    | ✓ TAS.d                                  |
| ✓ Pitch / Roll       | ✓ PitchI.1<br>✓ PitchI.2<br>✓ PitchI.3                       | ✓ PitchRateI.1<br>✓ PitchRateI.2<br>✓ PitchRateI.3           | ✓ RollI.1<br>✓ RollI.2<br>✓ RollI.3                          | ✓ RollRateI.1<br>✓ RollRateI.2<br>✓ RollRateI.3 | ✓ PITCHref<br>✓ ROLLref                                    |                                          |
| ✓ Temp / Dewpt       | ✓ TTM.1<br>✓ TTM.2<br>✗ TTM.3                                | ✓ TDM.1<br>✓ TDM.2<br>✗ TDM.3                                | ✓ TRadD.1<br>✓ TRadS.1<br>✗ 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                                     |
| ✓                           | Dropwindsonde Log(s) - AVAPS and FD if completed |
| ✓                           | Flight Track                                     |
| <input type="checkbox"/>    | Miscellaneous FD Notes                           |

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

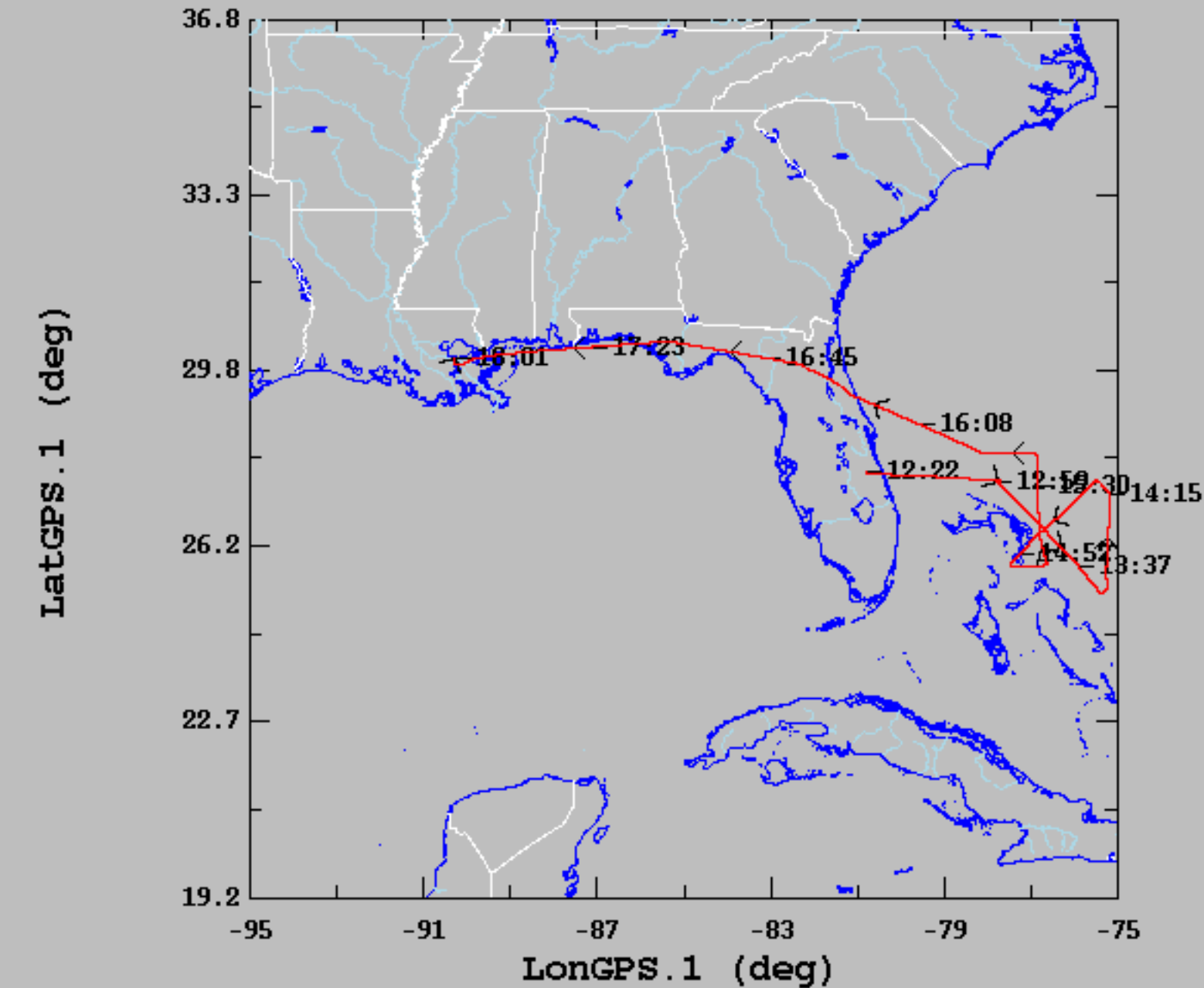
| NOTES:                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>PDApha.2 INOP for entire mission</p> <p>PDBeta.2 INOP for entire mission</p> <p>PQM.1 failed during the transit back to home station</p> <p>QC accomplished by M Holmes</p> <p>TDM.1 unrepresentative for large portion of the flight.</p> <p>None of these instrument failures affected the realtime dataset or the post processed dataset.</p> |

# U.S. Department of Commerce / NOAA / OMAO / Aircraft Operations Center - N42RF Manifest

| FLIGHT INFORMATION                                     |              |             |              | CREW MANIFEST |                   |                   | MISSION INFORMATION     |            |                                                                                                   |     |      |
|--------------------------------------------------------|--------------|-------------|--------------|---------------|-------------------|-------------------|-------------------------|------------|---------------------------------------------------------------------------------------------------|-----|------|
| FLT ID:                                                | 20190901H1   | FLT #:      |              | AC:           | Didier            | Scientists:       | Pressure                |            | Dropsondes                                                                                        |     |      |
| From:                                                  | KLAL         |             |              | CP(s):        | Mitchell          | Sippel            | A/C Takeoff             |            | Good                                                                                              | Bad | Sent |
| To:                                                    | KMSY         | ETA:        |              |               |                   | Dahl              |                         |            |                                                                                                   |     |      |
| Block Time                                             |              | Flight Time |              | Nav(s):       | Freeman           | Dunion            | ASOS Takeoff            |            | <div style="text-align: center; font-size: 1.2em;"> <b>25</b>      <b>2</b>      <b>25</b> </div> |     |      |
| In:                                                    | <b>18:09</b> | Land:       | <b>18:00</b> |               |                   | Ricciotti, Gerard |                         |            |                                                                                                   |     |      |
| Out:                                                   | <b>11:56</b> | T/O:        | <b>12:04</b> | FE(s):        | Lalonde           | Sawislak          | A/C Land                |            | Good                                                                                              | Bad | Sent |
|                                                        |              |             |              |               | Heystek           | Chang             |                         |            |                                                                                                   |     |      |
| Total:                                                 | <b>6.20</b>  | Total:      | <b>5.93</b>  | FD(s):        | Sears             | Visitors:         | ASOS Land               |            |                                                                                                   |     |      |
|                                                        |              |             |              |               |                   |                   |                         |            |                                                                                                   |     |      |
| Sponsoring Org:                                        |              |             |              | SEB:          | Lynch, T          | Klippel           | Storm Number ID:        |            |                                                                                                   |     |      |
| Program:                                               |              |             |              |               |                   | Olney             | (ie: AL072012)          |            |                                                                                                   |     |      |
| Purpose:                                               |              |             |              | SSA:          | Naeher            |                   | TCP0D/WSP0D Mission     |            |                                                                                                   |     |      |
|                                                        |              |             |              |               |                   |                   | (ie: NOAA2 2418A SANDY) |            |                                                                                                   |     |      |
|                                                        |              |             |              | AVAPS:        | Greene            |                   | OBSERVATIONS            |            |                                                                                                   |     |      |
| AS REQUIRED BY ORM                                     |              |             | Y            | N             | REMARKS           |                   | Fix Number              | Obs Number | Fix Time                                                                                          | SLP |      |
| VOLCANIC ASH                                           |              |             |              |               |                   |                   |                         |            |                                                                                                   |     |      |
| SCIENCE MISSION WITHIN BDRY LAYER                      |              |             |              |               |                   |                   |                         |            |                                                                                                   |     |      |
| LACK OF PRECIPITATION                                  |              |             |              |               | 3 X CAT 5 Pennies |                   |                         |            |                                                                                                   |     |      |
| RELATIVE HUMIDITY ≥ 80%                                |              |             |              |               |                   |                   |                         |            |                                                                                                   |     |      |
| LARGE AIR-SEA TEMP GRADIENT                            |              |             |              |               |                   |                   |                         |            |                                                                                                   |     |      |
| HIGH SURFACE WINDS                                     |              |             |              |               |                   |                   |                         |            |                                                                                                   |     |      |
| LONG FETCH / DURATION OF SFC WND                       |              |             |              |               |                   |                   |                         |            |                                                                                                   |     |      |
| SEA SALT ACCRETION FORECAST                            |              |             |              |               |                   |                   |                         |            |                                                                                                   |     |      |
| SEA SALT ACCRETION OBSERVED                            |              |             |              |               |                   |                   |                         |            |                                                                                                   |     |      |
|                                                        |              |             |              |               |                   |                   |                         |            |                                                                                                   |     |      |
| *Highlighted items must be completed before departure. |              |             |              |               |                   |                   |                         |            |                                                                                                   |     |      |
| Remarks:                                               |              |             |              |               |                   |                   |                         |            |                                                                                                   |     |      |
|                                                        |              |             |              |               |                   |                   |                         |            |                                                                                                   |     |      |
|                                                        |              |             |              |               |                   |                   |                         |            |                                                                                                   |     |      |
|                                                        |              |             |              |               |                   |                   |                         |            |                                                                                                   |     |      |

20190901H1 Flight Track

2019-09-01, 12:22:10-18:01:04



|                         |        |       |        |        |
|-------------------------|--------|-------|--------|--------|
|                         | mean   | sigma | min    | max    |
| LatGPS.1 (deg), 1 s/sec | 27.94  | 1.57  | 25.28  | 30.34  |
| LonGPS.1 (deg), 1 s/sec | -79.73 | 4.41  | -90.26 | -75.17 |

# AVAPS Drop Log

Project: \_\_\_\_\_

Mission: DORIAN

Flight ID: 20190901H1

Take Off: \_\_\_\_\_

Landing: \_\_\_\_\_

Flt Dir: SEAS

Launcher S/N: \_\_\_\_\_

| Drop # | Sonde Serial #       | Rcvr #       | Press Offset    | Launch Time | Operator | Charge \$\$ To | Comments      | Good ? |
|--------|----------------------|--------------|-----------------|-------------|----------|----------------|---------------|--------|
| 1      | 185120651            | 1            | 0               | 1255        | JG       | NWS            |               | ✓      |
| 2      | 185130879            | 2            | -0.13           | 1311        | JG       | NWS            |               | ✓      |
| 3      | 191050422            | 3            | 0               | 1321        |          | NESDIS         |               | ✓      |
| 4      | 191040483            | 4            | -0              |             |          | NWS            | no launch det | ✗ RMW  |
| 5      | 18573046             | 5            | 0               | 1324        |          | NWS            |               | ✓      |
| 6      | 184750457            | 6            | -0.6            | 1325        |          | NWS            |               | ✓      |
| 7      | 184750439            | 7            | -0.6            | 1326        |          | NWS            |               | ✓      |
| 8      | 185130004            | 8            | 0               | 1335        |          | NWS            |               | ✓      |
| 9      | 191040506            | 1            | -0.5            | 1347        |          | NWS            |               | ✓      |
| 10     | 184040035            | 2            | -0.6            | 14          |          | NWS            |               | ✓      |
| 11     | 185130193            | 3            | 0               | 1432        |          |                |               | ✓      |
| 12     | 191010492            | 4            | -0.4            | 1436        |          |                |               | ✓      |
| 13     | 185130158            | 5            | 0               | 1440        |          |                |               | ✓      |
| 14     | 184040031            | 6            | -0.5            |             |          |                | no launch det | ✗      |
| 15     | 183330828            | 7            | 0.7             | 1447        |          |                |               | ✓      |
| 16     | 184750464            | 8            | 0.7             | 1444        |          | NWS            |               | ✓      |
| 17     | 184750437            | 1            | -0.7            | 1445        |          | NESDIS         |               | ✓      |
| 18     | 183321108            | 2            | -0.5            | 1452        |          | NWS            |               | ✓      |
| 19     | 19104509             | 3            | 0               | 1513        |          | NWS            |               | ✓      |
| 20     | 183331036            | 4            | 0               | 1514        |          | NWS            |               | ✓      |
| 21     | 191040505            | 5            | 0               | 1514        |          | NESDIS         |               | ✓      |
| 22     | 185130005            | 6            | 0               | 1516        |          | NWS            |               |        |
| 23     | 183320976            | 7            | 0               | 1516        |          | NESDIS         |               |        |
| 24     | 183331031            | 8            | -0.5            | 1518        |          | NWS            |               |        |
| 25     | 183321075            | 1            | 0.5             | 1519        |          | NWS            |               |        |
| 26     | 183331034            | 2            | 0               | 1519        |          | NWS            |               |        |
| 27     | 183311023            | 3            | 0               | 1530        | ✓        | NWS            |               |        |
| 28     | <del>183311054</del> | <del>4</del> | <del>-0.5</del> |             |          |                |               |        |
| 29     |                      |              |                 |             |          |                |               |        |
| 30     |                      |              |                 |             |          |                |               |        |
| 31     |                      |              |                 |             |          |                |               |        |