

N42RF ERROR SUMMARY  
20210212H1

Flight ID: 20210212H1

| 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/2021/MET/20210212H1                |
| Local Met Data                       | Takeoff PANC (1751Z) Landing PANC (2356Z) |
| 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                                   |

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.

PQM.1 and PQM.4 failed in-flight. PTM.1 failed in-flight. PitchI.3 and RollI.3 unavailable. TTM.3 unavailable. TDM.3 generally trends with TDM.1 and TDM.2 but is unrepresentative. TRadU.1 unavailable.

| 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 / Holmes  
Phone #: 863-500-3901

ACAT-4 Version = 7.3

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

| FLIGHT INFORMATION                |            |                |       | CREW MANIFEST |           |                                                        | MISSION INFORMATION     |            |                   |     |      |
|-----------------------------------|------------|----------------|-------|---------------|-----------|--------------------------------------------------------|-------------------------|------------|-------------------|-----|------|
| FLT ID:                           | 20210212H1 | FLT #:         | 21-31 | AC:           | Mitchell  | Scientists:                                            | Pressure                |            | Dropsondes        |     |      |
| From:                             | PANC       | ETD:           | 1800Z | CP(s):        | Keith     | Chang, Paul                                            | A/C Takeoff             | 1017.0 mb  | Good              | Bad | Sent |
| To:                               | PANC       | ETA:           | 0000Z |               | Shaw      | Sapp, Joe                                              |                         |            | 0                 | 0   | 0    |
| Block Time                        |            | Flight Time    |       | NAV:          | Utama     |                                                        | ASOS Takeoff            | 1015.3     | BTs               |     |      |
| In:                               | 0:01       | Land:          | 23:57 | FE(s):        | Heystek   |                                                        | A/C Land                | 1014.5 mb  | Good              | Bad | Sent |
| Out:                              | 17:45      | T/O:           | 17:52 | FD(s):        | Sanchez   |                                                        |                         |            | 0                 | 0   | 0    |
| Total:                            | 6.3        | Total:         | 6.1   | SSA:          | Mascaro   | Visitors:                                              | ASOS Land               | 1012.7     |                   |     |      |
|                                   |            |                |       | AVAPS:        | McAlister | Richards/B                                             | Storm Number ID:        |            | N/A               |     |      |
| Sponsoring Org:                   |            | NESDIS         |       | SEB:          |           |                                                        | (ie: AL072012)          |            | WXWXA OCEANWINDS1 |     |      |
| Program:                          |            | PED            |       |               |           |                                                        | TCPD/WSPD Mission       |            |                   |     |      |
| Purpose:                          |            | OWW Mission #1 |       |               |           |                                                        | (ie: NOAA2 2418A SANDY) |            |                   |     |      |
|                                   |            |                |       | MX:           |           |                                                        | OBSERVATIONS            |            |                   |     |      |
| 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) - no mission impact. |
|--------------------|------------------------------------------------|

|                     |                                        |                     |           |           |
|---------------------|----------------------------------------|---------------------|-----------|-----------|
| Flight ID:          | 20210212H1                             | Pressure Comparison |           |           |
| Flight Director(s): | Carpenter / Holmes                     |                     | T/O       | Land      |
| Mission:            | Non-tasked Science Collection/Research | Aircraft            | 1017.0 mb | 1014.5 mb |
| UWZ.d mean:         | 0.04                                   | Tower               | 1015.3 mb | 1012.7 mb |

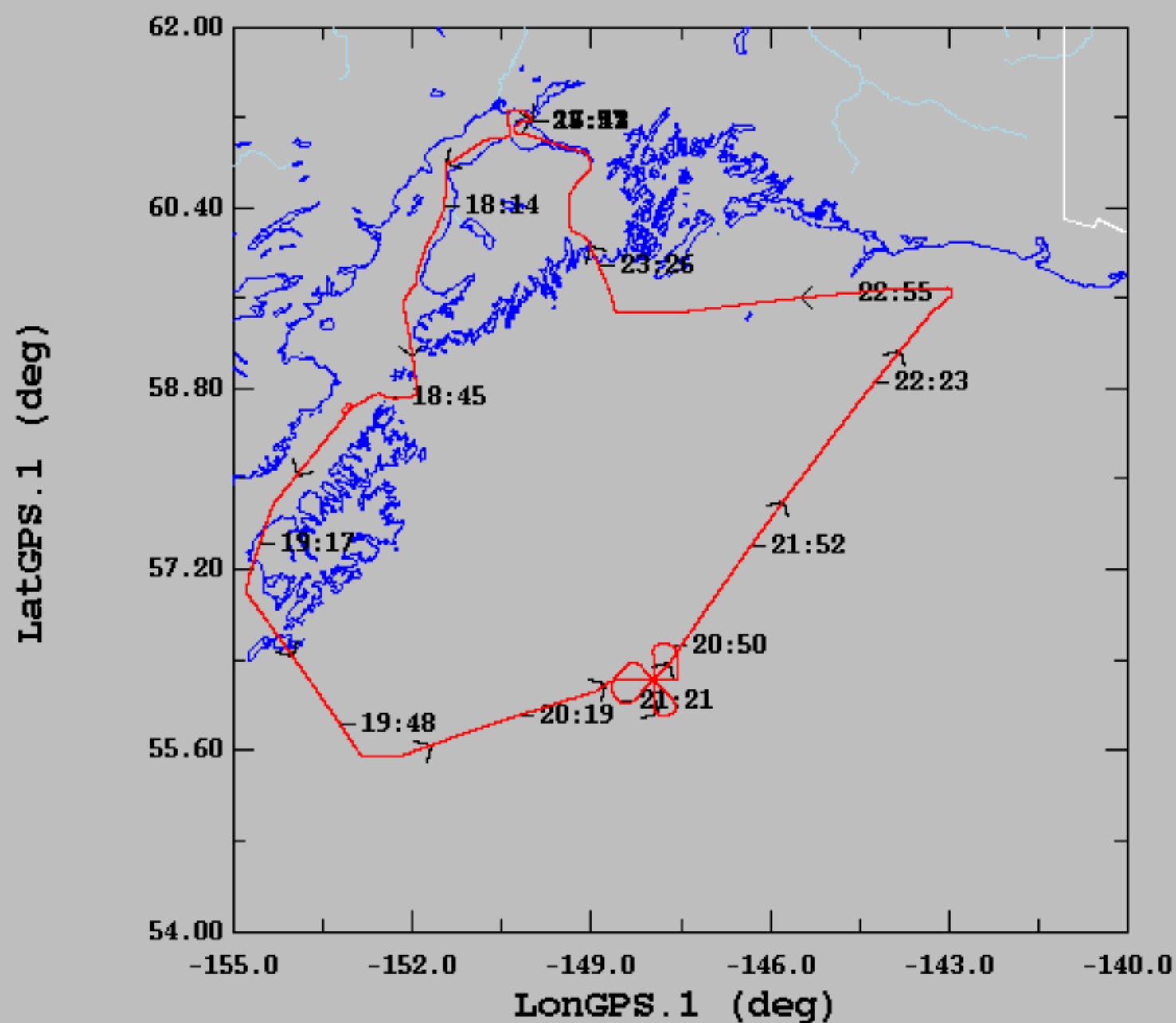
|                      | Raw 1Hz Mean File Parameters                                 |                                                              |                                                              |                                                 | C File Parameters                                          |                                          |
|----------------------|--------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------|------------------------------------------------------------|------------------------------------------|
| ✓ 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>X PQM.4                     | ✓ PSM.1<br>✓ PSM.2<br>X 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                       | ✓ PitchRatel.1<br>✓ PitchRatel.2<br>X PitchRatel.3           | ✓ RollI.1<br>✓ RollI.2<br>X RollI.3                          | ✓ RollRatel.1<br>✓ RollRatel.2<br>X RollRatel.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>PQM.1 and PQM.4 failed in-flight. PTM.1 failed in-flight. PitchI.3 and RollI.3 unavailable. TTM.3 unavailable. TDM.3 generally trends with TDM.1 and TDM.2 but is unrepresentative. TRadU.1 unavailable. Unrealistic RH spike at 1846Z.</p> |

2021-02-12, 16:41:16-23:57:20



|                          | mean    | sigma | min     | max     |
|--------------------------|---------|-------|---------|---------|
| LatGPS.1 (deg), 1 s/sec  | 58.59   | 1.99  | 55.54   | 61.27   |
| LongGPS.1 (deg), 1 s/sec | -149.40 | 2.95  | -154.81 | -142.90 |