

N42RF ERROR SUMMARY  
20220129H1

Flight ID: 20220129H1

| 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/20220129H1 |
|------------------|----------------------------|
|------------------|----------------------------|

| Local Met Data        | Takeoff PANC | Landing PANC |
|-----------------------|--------------|--------------|
| Dynamic Corrections   |              | Yes          |
| AttackAngleIntercept  |              | 2.307        |
| AttackAngleSlope      |              | 6.07515      |
| SlipAngleIntercept    |              | 0.237        |
| SlipAngleSlope        |              | 7.04607      |
| AttackAngleIntercept2 |              | 2.06219      |
| AttackAngleSlope2     |              | 5.99068      |
| SlipAngleIntercept2   |              | 0.125        |
| SlipAngleSlope2       |              | 6.9873       |

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 / Holmes  
Phone #: 863-500-3911

ACAT-4 Version = 7.4

## P-3 QC Checklist

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

|                     |                                        |                     |          |          |
|---------------------|----------------------------------------|---------------------|----------|----------|
| Flight ID:          | 20220129H1                             | Pressure Comparison |          |          |
| Flight Director(s): | Hathaway / Holmes                      |                     | T/O      | Land     |
| Mission:            | Non-tasked Science Collection/Research | Aircraft            | 986.6 mb | N/A      |
| UWZ.d mean:         | 0.07                                   | Tower               | 985.7 mb | 988.5 mb |

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

| FLID_Mission_Documents.pdf:                                               |
|---------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Error Summary                         |
| <input checked="" type="checkbox"/> Crew Manifest                         |
| <input checked="" type="checkbox"/> QC Checklist                          |
| <input type="checkbox"/> Dropwindsonde Log(s) - AVAPS and FD if completed |
| <input checked="" type="checkbox"/> Flight Track                          |
| <input type="checkbox"/> Miscellaneous FD Notes                           |

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

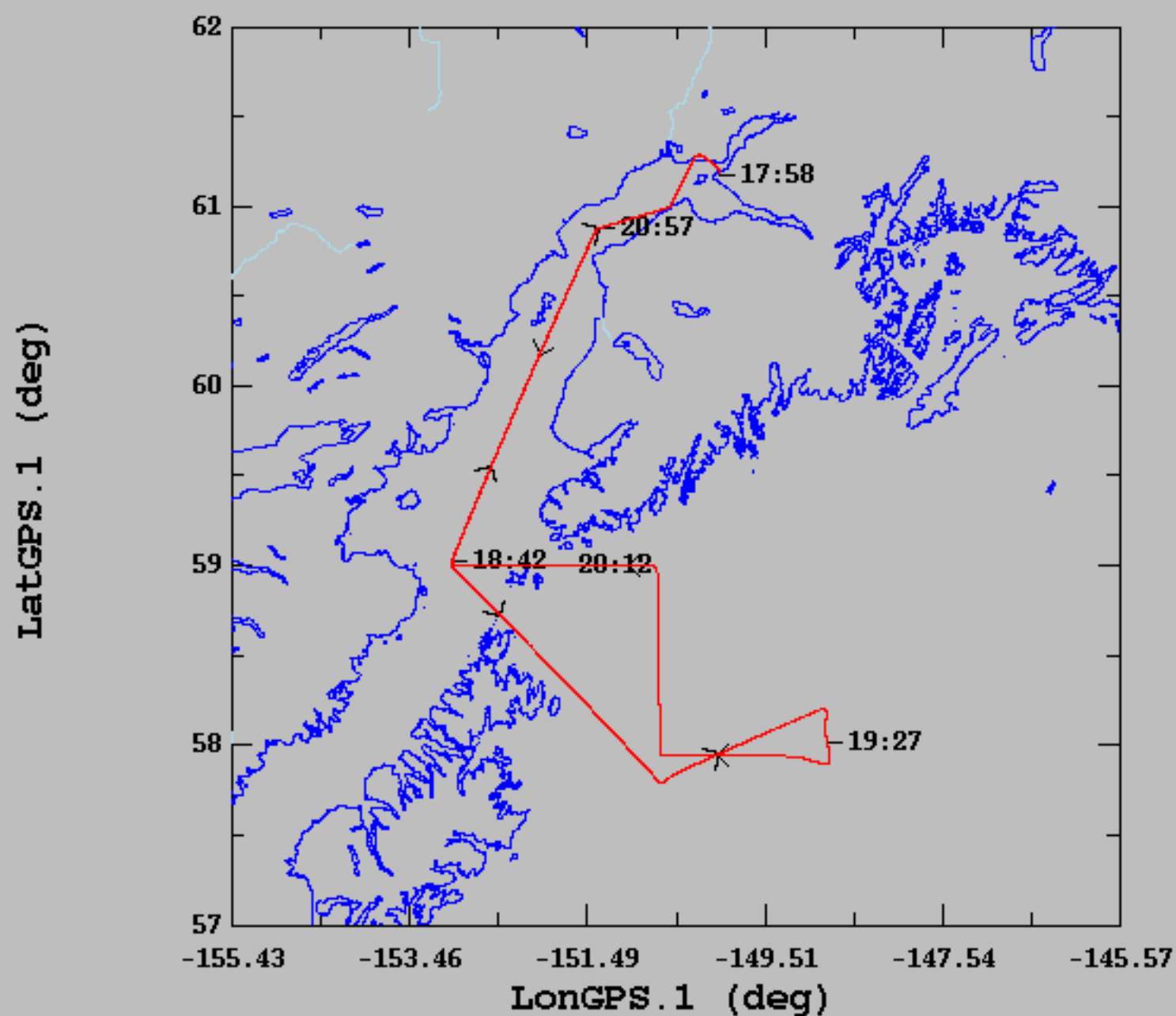
### NOTES:

- PQM.1 is erroneous and unrepresentative throughout the whole flight.
- PTM.1 is erroneous and unrepresentative throughout the whole flight.
- TDM.2 is overly smoothed out throughout majority of flight. TDM.1 was chosen as reference.
- TDM.3 is unusual warm throughout the majority of flight.
- Portions of the flight when TDM.1 is warmer than or equal to TA.d in flight, specifically around 1845Z, 1850Z, and 2015Z.

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

| FLIGHT INFORMATION               |            |                |       | CREW MANIFEST |           |                                                        | MISSION INFORMATION     |                    |            |                    |      |
|----------------------------------|------------|----------------|-------|---------------|-----------|--------------------------------------------------------|-------------------------|--------------------|------------|--------------------|------|
| FLT ID:                          | 20220129H1 | FLT #:         | OWW 2 | AC:           | Doremus   | Scientists:                                            | Pressure                |                    | Dropsondes |                    |      |
| From:                            | PANC       | ETD:           | 0900L | CP(s):        | Shaw      | Chang                                                  | A/C Takeoff             |                    | Good       | Bad                | Sent |
| To:                              | PANC       | ETA:           | 1200L |               | Keith     | Jelenak                                                |                         |                    | 0          | 0                  | 0    |
| Block Time                       |            | Flight Time    |       | NAV:          | Miller    | Vilardell Sanchez                                      | ASOS Takeoff            |                    | BTs        |                    |      |
| In:                              | 21:20      | Land:          | 21:12 | FE(s):        | Darby     | Sapp                                                   |                         |                    | A/C Land   |                    | Good |
| Out:                             | 17:51      | T/O:           | 17:58 | FD(s):        | Pitmann   | FE: Gee                                                | ASOS Land               |                    |            |                    | 0    |
| Total:                           | 3.5        | Total:         | 3.2   | SSA:          | Hathaway  | Nav: Freeman                                           |                         |                    | ASOS Land  |                    | 0    |
| Sponsoring Org:                  |            | AOC            |       | AVAPS:        | McAlister | Visitors:                                              | Storm Number ID:        |                    |            |                    |      |
| Program:                         |            | PED            |       | SEB:          | Warnecke  |                                                        | (ie: AL072012)          |                    |            |                    |      |
| Purpose:                         |            | OWW Mission #2 |       |               | MX:       |                                                        |                         | TCPD/WSPOD Mission |            | WXWXC OCEANWINDS02 |      |
|                                  |            |                |       |               |           |                                                        | (ie: NOAA2 2418A SANDY) |                    |            |                    |      |
| AS REQUIRED BY ORM               |            |                |       | Y             | N         | REMAR                                                  | Fix Number              | Obs Number         | Fix Time   | SLP                |      |
| VOLCANIC ASH                     |            |                |       |               | X         |                                                        | 1                       |                    |            |                    |      |
| SCIENCE MISSION WITHIN BDY 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:                         |            |                |       |               |           |                                                        |                         |                    |            |                    |      |
|                                  |            |                |       |               |           |                                                        |                         |                    |            |                    |      |
|                                  |            |                |       |               |           |                                                        |                         |                    |            |                    |      |

2022-01-29, 17:58:00-20:57:45



|                          | mean    | sigma | min     | max     |
|--------------------------|---------|-------|---------|---------|
| LatGPS.1 (deg), 1 s/sec  | 59.17   | 1.04  | 57.79   | 61.28   |
| LongGPS.1 (deg), 1 s/sec | -151.29 | 1.14  | -152.98 | -148.78 |