

N42RF ERROR SUMMARY  
20240212H1

Flight ID: 20240212H1

| 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/2024/MET/20240212H1

| Local Met Data        | Takeoff PANC (1803Z) | Landing PANC (0030Z) |
|-----------------------|----------------------|----------------------|
| Dynamic Corrections   |                      | Yes                  |
| AttackAngleIntercept  |                      | 2.305                |
| AttackAngleSlope      |                      | 6.07576              |
| SlipAngleIntercept    |                      | 0.235                |
| SlipAngleSlope        |                      | 7.01112              |
| 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.

PQM.1 (wingtip) erroneous to inop for most of the flight; PQM.4 (radome) is erroneous between ~2047 and ~2237 UTC and deviates from PQM.2 and .3 at periods from ~2320 UTC until end of flight

I.3 for Pitch and Roll is inop; TRadU.1 is inop; TTM.3 is inop; TDM.3 is inop

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<br>----- | # deployed<br>----- | # good<br>----- | # transmitted<br>----- |
|--------------------------|---------------------|-----------------|------------------------|
| Dropsondes               | 6                   | 6               | 0                      |
| Test sondes              | 0                   | 0               | 0                      |
| AXBTS                    | 0                   | 0               | 0                      |

|        |   |   |   |
|--------|---|---|---|
| AXCPs  | 0 | 0 | 0 |
| AXCTDs | 0 | 0 | 0 |
| UAS    | 0 | 0 | 0 |

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

ACAT-4 Version = 7.4

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

| FLIGHT INFORMATION                                     |              |             |               | CREW MANIFEST |               |                 | MISSION INFORMATION     |            |                          |     |      |
|--------------------------------------------------------|--------------|-------------|---------------|---------------|---------------|-----------------|-------------------------|------------|--------------------------|-----|------|
| FLT ID:                                                | 20240212H1   | FLT #:      | FY24-         | AC:           | Copare        | Scientists:     | Pressure                |            | Dropsondes               |     |      |
| From:                                                  | PANC         | ETD:        | 0900L / 1800Z | CP(s):        | Keith         | Chang, Paul     | A/C Takeoff             | 1007.0     | Good                     | Bad | Sent |
| To:                                                    | PANC         | ETA:        | 1530L / 0030Z |               |               | Jelenak, Zorana |                         |            |                          | 6   | 0    |
| Block Time                                             |              | Flight Time |               | NAV:          | Miller        |                 | ASOS Takeoff            | 1005.9     | BTs                      |     |      |
| Out:                                                   | 17:55        | T/O:        | 18:03         | FE(s):        | Tyson         |                 | A/C Land                | -          | Good                     | Bad | Sent |
|                                                        |              |             |               |               | Wysinger      |                 |                         |            |                          |     |      |
| In:                                                    | 0:37         | Land:       | 0:30          | FD(s):        | Zawislak      |                 | ASOS Land               | 1006.6     | 0                        | 0   | 0    |
|                                                        |              |             |               |               |               |                 |                         |            |                          |     |      |
| Total:                                                 | 6.7          | Total:      | 6.5           | SSA:          | McAlister     | Visitors:       |                         |            |                          |     |      |
|                                                        |              |             |               | AVAPS:        | Richards      |                 | Storm Number ID:        |            | N/A                      |     |      |
| Sponsoring Org:                                        | NESDIS       |             |               |               | Meier (NAV)   |                 | (ie: AL072012)          |            |                          |     |      |
| Program:                                               | PED          |             |               | SEB:          | Dunford (NAV) |                 | TCPD/WSPD Mission       |            | NOAA2 WXWXC OCEANWINDS09 |     |      |
| Purpose:                                               | OCEANWINDS09 |             |               |               |               |                 | (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 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:                                               |              |             |               |               |               |                 |                         |            |                          |     |      |
|                                                        |              |             |               |               |               |                 |                         |            |                          |     |      |
|                                                        |              |             |               |               |               |                 |                         |            |                          |     |      |

## P-3 QC Checklist

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

|                     |                                        |                     |        |                |
|---------------------|----------------------------------------|---------------------|--------|----------------|
| Flight ID:          | 20240212H1                             | Pressure Comparison |        |                |
| Flight Director(s): | Zawislak                               |                     | T/O    | Land           |
| Mission:            | Non-tasked Science Collection/Research | Aircraft            | 1007.0 | No measurement |
| UWZ.d mean:         | -0.08                                  | Tower               | 1005.9 | 1006.6         |

|                      | 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>✓ 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                                                  | ✓ IasADDU.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                                | X 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>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) | X                                   |

### NOTES:

PQM.1 (wingtip) erroneous to inop for most of the flight; PQM.4 (radome) is erroneous between ~2047 and ~2237 UTC and deviates from PQM.2 and .3 at periods from ~2320 UTC until end of flight  
TDM.1 deviates from TDM.2 as much as 30C during transit, with some periods of inconsistency with TDM.2 on station; overall TDM.2 is the better behaving sensor and TDMref is set to TDM.2  
I.3 for Pitch and Roll is inop; TRadU.1 is inop; TTM.3 is inop; TDM.3 is inop  
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

# AVAPS Drop Log

Project: 06W24

Mission: FLY #9

Flight ID: 20240212H1

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

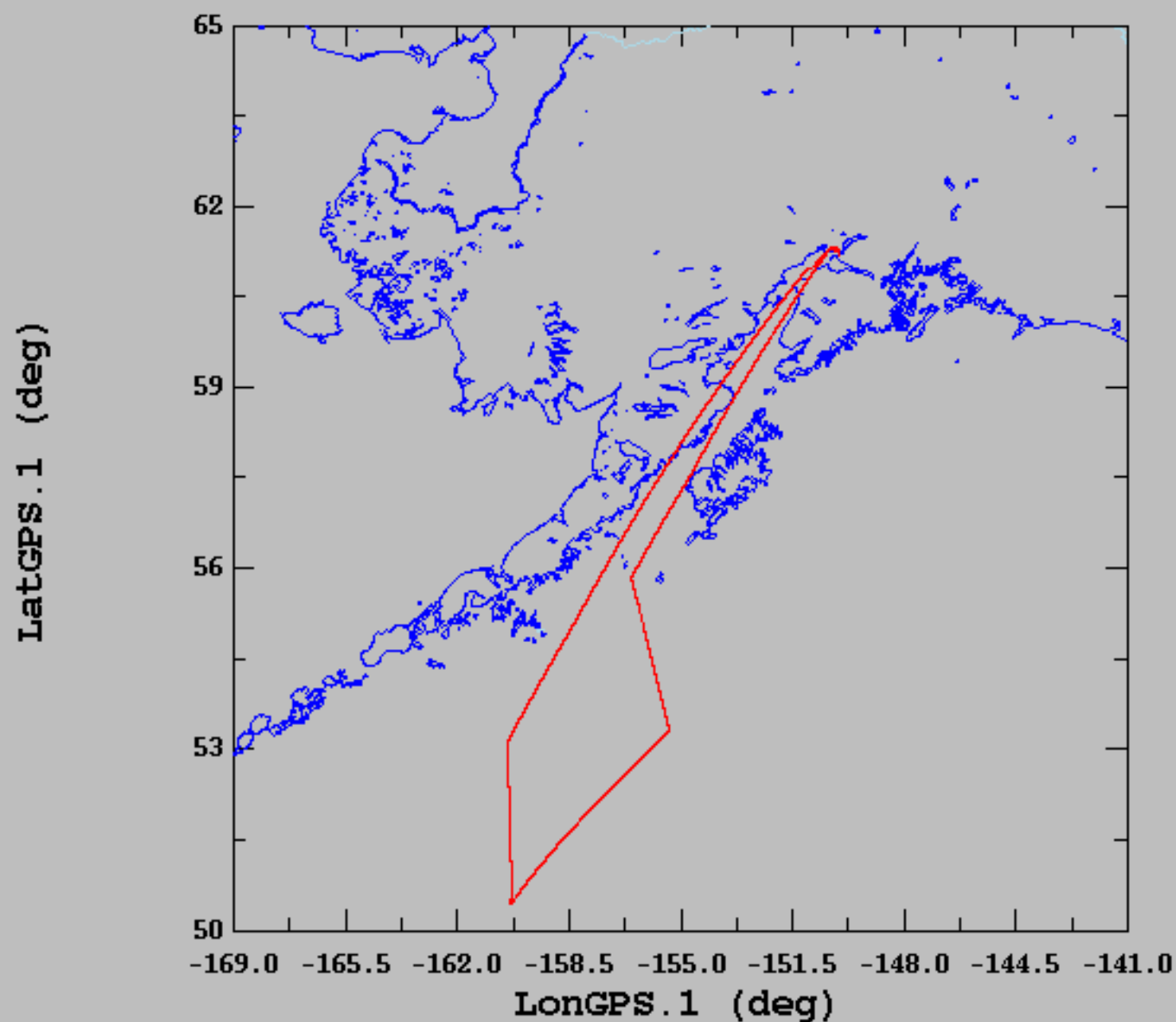
Landing: \_\_\_\_\_

Flt Dir: Jr2.

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

| Drop # | Sonde Serial #       | Rcvr # | Press Offset | Launch Time | Operator | Charge \$\$ To | Comments      | Good ? |
|--------|----------------------|--------|--------------|-------------|----------|----------------|---------------|--------|
| 1      | 151325170            | 1      | -1.3         | 2019        | JWR      |                | Set. Overpass | ✓      |
| 2      | 150845229            | 2      | -1.3         | 2176        |          |                |               | ✓      |
| 3      | 161545059            | 3      | -1.0         | 2129        |          |                |               | ✓      |
| 4      | 160745037            | 4      | -1.2         | 2145        |          |                |               | ✓      |
| 5      | 152225042            | 5      | -1.2         | 2159        |          |                |               | ✓      |
| 6      | 151325183            | 6      | -1.2         | 2210        |          |                |               |        |
| 7      | <del>151255040</del> |        |              |             |          |                |               |        |
| 8      |                      |        |              |             |          |                |               |        |
| 9      |                      |        |              |             |          |                |               |        |
| 10     |                      |        |              |             |          |                |               |        |
| 11     |                      |        |              |             |          |                |               |        |
| 12     |                      |        |              |             |          |                |               |        |
| 13     |                      |        |              |             |          |                |               |        |
| 14     |                      |        |              |             |          |                |               |        |
| 15     |                      |        |              |             |          |                |               |        |
| 16     |                      |        |              |             |          |                |               |        |
| 17     |                      |        |              |             |          |                |               |        |
| 18     |                      |        |              |             |          |                |               |        |
| 19     |                      |        |              |             |          |                |               |        |
| 20     |                      |        |              |             |          |                |               |        |
| 21     |                      |        |              |             |          |                |               |        |
| 22     |                      |        |              |             |          |                |               |        |
| 23     |                      |        |              |             |          |                |               |        |
| 24     |                      |        |              |             |          |                |               |        |
| 25     |                      |        |              |             |          |                |               |        |
| 26     |                      |        |              |             |          |                |               |        |
| 27     |                      |        |              |             |          |                |               |        |
| 28     |                      |        |              |             |          |                |               |        |
| 29     |                      |        |              |             |          |                |               |        |
| 30     |                      |        |              |             |          |                |               |        |
| 31     |                      |        |              |             |          |                |               |        |

02/12/2024, 16:38:19-24:29:38



|                          | mean    | sigma | min     | max     |
|--------------------------|---------|-------|---------|---------|
| LatGPS.1 (deg), 1 s/sec  | 56.66   | 3.59  | 50.45   | 61.33   |
| LongGPS.1 (deg), 1 s/sec | -154.93 | 3.50  | -160.38 | -149.98 |