

## U.S. Department of Commerce / NOAA / OMAO / Aircraft Operations Center - N43RF Manifest

| FLIGHT INFORMATION                                     |            |                           |             |       |  |        |           |         |                         | CREW MANIFEST       |              |               |            | MISSION INFORMATION |      |  |  |
|--------------------------------------------------------|------------|---------------------------|-------------|-------|--|--------|-----------|---------|-------------------------|---------------------|--------------|---------------|------------|---------------------|------|--|--|
| FLT ID:                                                | 20210612I1 |                           | FLT #:      |       |  | AC:    | Legidakes |         | Scientists:             |                     | Pressure     |               | Dropsondes |                     |      |  |  |
| From:                                                  | PANC       |                           | ETD:        | 0800L |  | CP(s): | Doremus   |         | Dahlberg                |                     | A/C Takeoff  |               | Good       | Bad                 | Sent |  |  |
| To:                                                    | PANC       |                           | ETA:        | 1600L |  |        | Rannenber |         |                         |                     |              |               | 0          | 0                   | 0    |  |  |
| Block Time                                             |            |                           | Flight Time |       |  | NAV:   | Freeman   |         |                         |                     | ASOS Takeoff |               | BTs        |                     |      |  |  |
| In:                                                    | 23:44      |                           | Land:       | 23:40 |  | FE(s): | Heystek   |         |                         |                     | A/C Land     |               | Good       | Bad                 | Sent |  |  |
| Out:                                                   | 15:27      |                           | T/O:        | 15:32 |  |        | Sanchez   |         |                         |                     |              |               | 0          | 0                   | 0    |  |  |
| Total:                                                 | 8.3        |                           | Total:      | 8.1   |  | SSA:   | Richards  |         | Visitors:               |                     | ASOS Land    |               |            |                     |      |  |  |
|                                                        |            |                           |             |       |  | AVAPS  | Knebel    |         |                         |                     |              |               |            |                     |      |  |  |
| Sponsoring Org:                                        |            | NGS                       |             |       |  | SEB:   |           |         |                         | Storm Number ID:    |              | N/A           |            |                     |      |  |  |
| Program:                                               |            | PGR                       |             |       |  |        |           |         |                         | (ie: AL072012)      |              |               |            |                     |      |  |  |
| Purpose:                                               |            | GRAV-D 2nd Half Mission 6 |             |       |  |        |           |         |                         | TCPOD/WSPOD Mission |              | WXWXC GRAVD06 |            |                     |      |  |  |
|                                                        |            |                           |             |       |  |        |           |         | (ie: NOAA2 2418A SANDY) |                     |              |               |            |                     |      |  |  |
| 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                            |            |                           |             |       |  |        |           |         |                         |                     | Pennies:     | N/A           |            |                     |      |  |  |
| *Highlighted items must be completed before departure. |            |                           |             |       |  |        |           |         |                         |                     |              |               |            |                     |      |  |  |
| Remarks:                                               |            |                           |             |       |  |        |           |         |                         |                     |              |               |            |                     |      |  |  |
|                                                        |            |                           |             |       |  |        |           |         |                         |                     |              |               |            |                     |      |  |  |
|                                                        |            |                           |             |       |  |        |           |         |                         |                     |              |               |            |                     |      |  |  |

## N43 Error Summary

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

Flight ID: 20210612I1 Mission ID: WXWXC GRAVD06 Mission Type: Non-tasked Science Collection/Research

T/O Time: 1532Z PANC Landed: 2340Z PANC

Flight Director(s): Hathaway QC performed by: Hathaway Phone #: 863-500-3911

## Expendable Counts

|           | Deployed | Good | Bad | Trasmitted |
|-----------|----------|------|-----|------------|
| Dropsonde | 0        | 0    | 0   | 0          |
| AXBTs     | 0        | 0    | 0   | 0          |
| UAS       | 0        |      |     |            |

## Information on Meteorological Sensors

| Sensor or System                     | Number or Name    |
|--------------------------------------|-------------------|
| Static Pressure Probe                | PSM.2             |
| Dynamic Pressure Prob                | 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          |
| Dynamic Corrections                  | Yes               |
| Attack Angle Intercept               | 0.13              |
| Attack Angle Slope                   | 6.02              |
| Slip Angle Intercept                 | 0.23              |
| Slip Angle Slope                     | 7.02537           |
| Attack Angle Intercept 2             |                   |
| Attack Angle Slope 2                 | NaN               |
| Slip Angle Intercept 2               | inth              |
| Slip Angle Slope 2                   | NaN               |

## QC Checklist

|           | PSM.1   | PSM.2   | Average PSM | Station Pressure |
|-----------|---------|---------|-------------|------------------|
| Takeoff   | 1004.63 | 1004.98 | 1004.81     | 1003.6           |
| Landing   | 1003.63 | 1002.96 | 1003.30     | 1001.4           |
| UWZ Mean: | -0.06   |         |             |                  |

| QC Key        | Not checked | Reference    | Valid | Errors(notes) |  |              |  |                  |         |  |          |
|---------------|-------------|--------------|-------|---------------|--|--------------|--|------------------|---------|--|----------|
| Accelerometer |             | AccAXI.1     |       | AccAYI.1      |  | AccAZI.1     |  | AccZfilter-GPS.1 | AccZref |  |          |
|               |             | AccAXI.2     |       | AccAYI.2      |  | AccAZI.2     |  | AccZfilter-GPS.2 |         |  |          |
|               |             | AccAXI-GPS.1 |       | AccAYI-GPS.1  |  | AccAZI-GPS.1 |  |                  |         |  |          |
|               |             | AccAXI-GPS.2 |       | AccAYI-GPS.2  |  | AccAZI-GPS.2 |  |                  |         |  |          |
| Altitude      |             | AltGPS.1     |       | AltI-GPS.1    |  | AltPaADDU.1  |  | AltRA.1          | ALTref  |  | AltRA1.c |
|               |             | AltGPS.2     |       | AltI-GPS.2    |  | AltBCADDU.1  |  | AltRA.2          | ALTPA.d |  | AltRA2.c |
|               |             | AltGPS.3     |       |               |  |              |  |                  | ALTGA.d |  |          |
|               |             | AltGPS.4     |       |               |  |              |  |                  |         |  |          |
| Ground Speed  |             | GsXI-GPS.1   |       | GsYI-GPS.1    |  | GsZI-GPS.1   |  |                  | GSXref  |  |          |
|               |             | GsXI-GPS.2   |       | GsYI-GPS.2    |  | GsZI-GPS.2   |  |                  | GSYref  |  |          |
|               |             |              |       |               |  |              |  |                  | GSZref  |  |          |
| Lat/Lon       |             | LatGPS.1     |       | LatI-GPS.1    |  | LonGPS.1     |  | LonI-GPS.1       | LATref  |  |          |
|               |             | LatGPS.2     |       | LatI-GPS.2    |  | LonGPS.2     |  | LonI-GPS.2       | LONref  |  |          |
|               |             | LatGPS.3     |       |               |  | LonGPS.3     |  |                  |         |  |          |

|            |             |                |             |               |              |          |
|------------|-------------|----------------|-------------|---------------|--------------|----------|
|            | ✓ LatGPS.4  |                | ✓ LonGPS.4  |               |              |          |
| Pressure   | ✓ PDALPHA.1 | ✓ PQALPHA.1    | ✗ PQM.1     | ✓ PSM.1       | ✓ PDALPHAref | ✓ PQMref |
|            | ✓ PDALPHA.2 | ✓ PQBETA.1     | ✓ PQM.2     | ✓ PSM.2       | ✓ PDBETAref  | ✓ PQ.c   |
|            | ✓ PDBETA.1  |                | ✓ PQM.3     | ✓ PTM.1       | ✓ PQALPHAref | ✓ PSMref |
|            | ✓ PDBETA.2  |                | ✓ PQM.4     |               | ✓ PQBETAref  | ✓ PS.c   |
| Air Speed  | ✓ CasADDU.1 | ✓ TasADDU.1    | ✓ IasADDU.1 |               | ✓ IAS.d      | ✓ TAS.d  |
| Pitch/Roll | ✓ PitchI.1  | ✓ PitchRateI.1 | ✓ RollI.1   | ✓ RollRateI.1 | ✓ PITCHref   |          |
|            | ✓ PitchI.2  | ✓ PitchRateI.2 | ✓ RollI.2   | ✓ RollRateI.2 | ✓ ROLLref    |          |
| Temp/Dewpt | ✓ TTM.1     | ✓ TDM.1        | ✓ TRadD.1   |               | ✓ TD.c       | ✓ TTMref |
|            | ✓ TTM.2     | ✓ TDM.2        | ✓ TRadS.1   |               | ✓ TDMref     | ✓ TA.d   |
|            | ✓ TTM.3     | ✓ TDM.3        | ✓ TRadU.1   |               |              |          |
| Misc.      |             |                |             |               | ✓ UWZ.d      | ✓ WS.d   |
|            |             |                |             |               | ✓ DPJ_WSZ    | ✓ WD.d   |
|            |             |                |             |               | ✓ HUM        |          |

#### QC/Data Comments:

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 is unrepresentative.

