

N43RF ERROR SUMMARY
20210829I1

Flight ID: 20210829I1

| Sensor or System ----- | Number or Name ----- |
|--------------------------------------|---|
| 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/20210829I1 |
| Local Met Data | Takeoff KLAL (0737Z) Landing KLAL (1604Z) |
| Dynamic Corrections | Yes |
| AttackAngleIntercept | 0.131251 |
| AttackAngleSlope | 6.02327 |
| SlipAngleIntercept | 0.23 |
| SlipAngleSlope | 7.02537 |

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.

GPS.4 unavailable. PQM.1 continual drift away from baseline during mission. PSM.1 and PSM.2 exhibit 10-20 mb difference, most pronounced at higher altitudes. PSM.2 appears more stable. PitchI.3 and RollI.3 unavailable. TTM.3 inoperative. TDM.3 trends with TDM.1 and TDM.2 but is an outlier. TRadU.1 inoperative.

| Expendable Type ----- | # deployed ----- | # good ----- | # transmitted ----- |
|--------------------------|---------------------|-----------------|------------------------|
| Dropsondes | 35 | 32 | 32 |
| Test sondes | 0 | 0 | 0 |
| AXBTS | 11 | 8 | 8 |
| AXCPs | 0 | 0 | 0 |
| AXCTDs | 0 | 0 | 0 |
| UAS | 0 | 0 | 0 |

Flight Director: Carpenter
Phone #: 863-500-3901

ACAT-4 Version = 7.4

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

| FLIGHT INFORMATION | | | | CREW MANIFEST | | | MISSION INFORMATION | | | | |
|-----------------------------------|------------|-----------------------------------|-------|---------------|----------|-----------------|-------------------------|---------------|------------------|-------------------------|------|
| FLT ID: | 20210829I1 | FLT #: | 21- | AC: | Mitchell | Scientists: | Pressure | | Dropsondes | | |
| From: | KLAL | ETD: | 0800Z | CP(s): | Doremus | Chang, Paul | A/C Takeoff | 1012.9 | Good | Bad | Sent |
| To: | KLAL | ETA: | 1600Z | | Copare | Jelenak, Zorana | | | ASOS Takeoff | KLAL 0950Z 1011.9 mb | 32 |
| Block Time | | Flight Time | | NAV: | Hough | Sapp, Joe | A/C Land | 1013.5 | | | BTs |
| In: | 16:10 | Land: | 16:04 | FE(s): | Darby | Alaka, Gus | | | ASOS Land | KLAL 1550Z 1015.0 mb | Good |
| Out: | 7:31 | T/O: | 7:38 | FD(s): | Green | Hazelton, Andy | 8 | 3 | | | 8 |
| Total: | 8.7 | Total: | 8.4 | SSA: | Mascaro | Freeman (NAV) | | | Storm Number ID: | | |
| Sponsoring Org: | | NESDIS | | | AVAPS: | Warnecke | (ie: AL072012) | | | | |
| Program: | | PND | | | SEB: | | TCPOD/WSP0D Mission | | NOAA3 WB09A IDA | | |
| Purpose: | | Research Mission #2 Hurricane IDA | | | MX: | | (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 | | | | | X | | Pennies: | 9 (Hurricane) | | | |

*Highlighted items must be completed before departure.

Remarks:

P-3 QC Checklist

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

| | |
|---------------------|--|
| Flight ID: | 20210829J1 |
| Flight Director(s): | Carpenter |
| Mission: | Non-tasked Science Collection/Research |
| UWZ.d mean: | 0 |

| Pressure Comparison | | |
|---------------------|----------------------|----------------------|
| | T/O | Land |
| Aircraft | 1012.9 | 1013.5 |
| Tower | KLAL 0950Z 1011.9 mb | KLAL 1550Z 1015.0 mb |

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

| FLID_Mission_Documents.pdf: |
|--|
| ✓ Error Summary |
| ✓ Crew Manifest |
| ✓ QC Checklist |
| ✓ 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) | <input checked="" type="checkbox"/> |

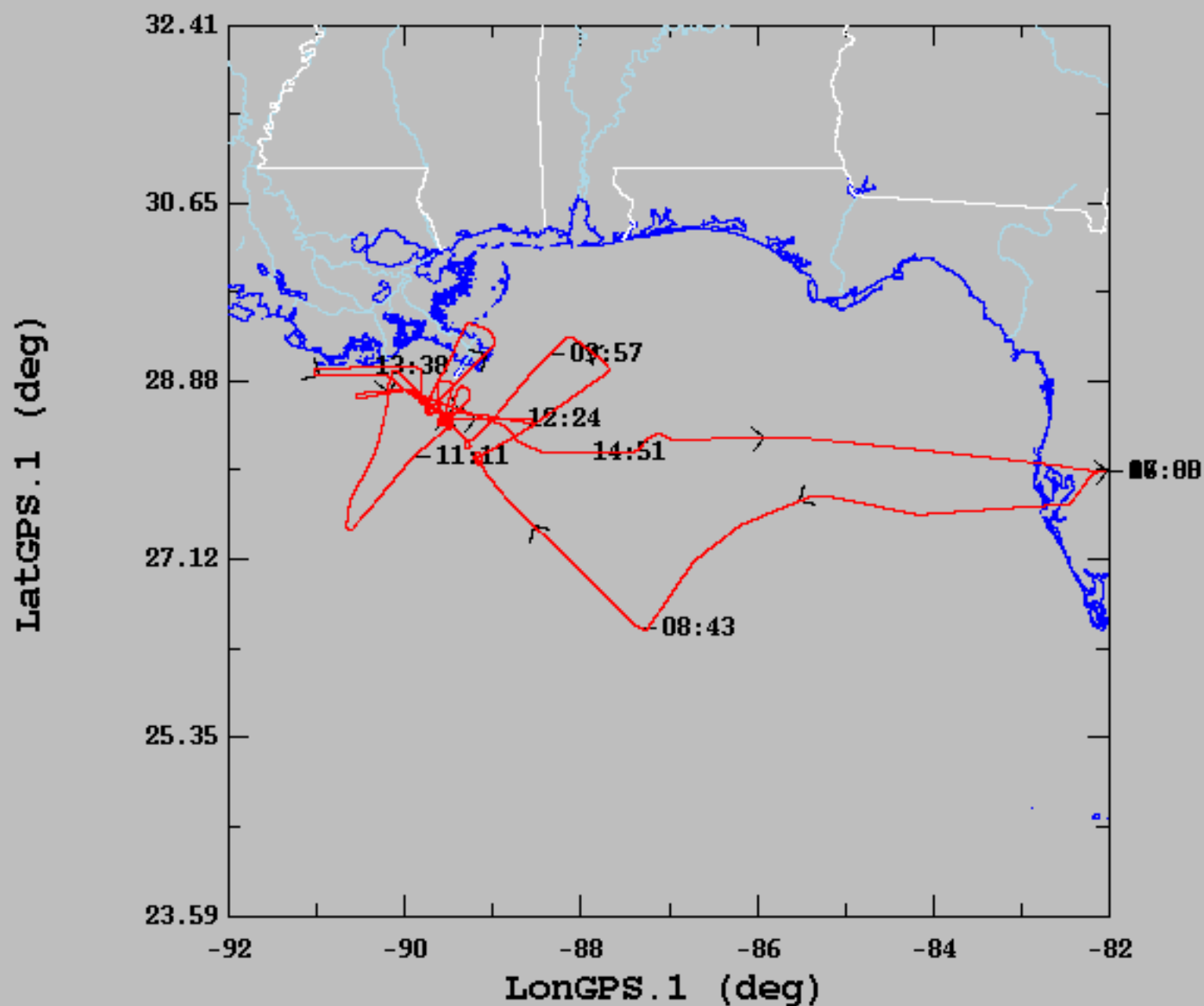
| NOTES: |
|--|
| <p>GPS.4 unavailable.</p> <p>PQM.1 continually drifting away from baseline during mission.</p> <p>PSM.1 and PSM.2 exhibit 10-20 mb difference. PSM.2 more stable.</p> <p>PitchI.3 and RollI.3 unavailable.</p> <p>TTM.3 inoperative.</p> <p>TDM.3 trends with TDM.1 and TDM.2 but is an outlier.</p> <p>TRadU.1 inoperative.</p> |

AVAPS Drop Log

Project: Hurr 21 Mission: IDA Flight ID: 2021082911
 Take Off: 0738Z Landing: _____ Flt Dir: Carpenter Launcher S/N: 001

| Drop # | Sonde Serial # | Rcvr # | Press Offset | Launch Time | Operator | Charge \$\$ To | Comments | Good ? |
|--------|----------------|--------|--------------|-------------|----------|----------------|------------|--------|
| 1 | 204521905 | 1 | -5 | 0852 | JW | HRD | IPSE C | ✓ |
| 2 | 204520777 | 2 | -5 | 0903 | | HRD | Midpoint C | ✓ |
| 3 | 203040058 | 3 | 0 | 0914 | | ONR | Rmw | ✓ |
| 4 | 203040036 | 4 | 0 | 0914 | | ONR | Rmw | ✓ |
| 5 | 203040062 | 5 | 0 | 0914 | | ONR | Rmw | ✓ |
| 6 | 203040061 | 6 | 0 | 0917 | | ONR | CTR C | ✓ |
| 7 | 203040067 | 7 | 0 | 0926 | | ONR | Rmw | ✓ |
| 8 | 203040031 | 8 | 0 | 0926 | | ONR | Rmw | ✓ |
| 9 | 203310044 | 1 | 0 | 0926 | | ONR | Rmw | ✓ |
| 10 | 204850520 | 2 | 0 | 0935 | | HRD | Midpot C | ✓ |
| 11 | 203031071 | 3 | 0 | 0946 | | HRD | Endpoint C | ✓ |
| 12 | 203040081 | 4 | 0 | 1014 | | NWS | Rmw | ✓ |
| 13 | 203031073 | 5 | 0 | 1018 | | NWS | CTR | ✓ |
| 14 | 204650326 | 6 | 0 | — | | ONR | NO GPS/LD | X |
| 15 | 203040066 | 7 | 0 | 1022 | | ONR | Rmw | ✓ |
| 16 | 203040086 | 8 | 0 | 1023 | | ONR | Rmw | ✓ |
| 17 | 203040032 | 1 | 0 | 1029 | | HRD | | ✓ |
| 18 | 2046502631 | 2 | 0 | 1033 | | HRD | | ✓ |
| 19 | 204530472 | 3 | 0 | 1048 | | HRD | | ✓ |
| 20 | 204650329 | 4 | 0 | 1058 | | HRD | | ✓ |
| 21 | 203310043 | 5 | 0 | 1107 | | HRD | | ✓ |
| 22 | 204650327 | 6 | 0 | 1116 | | ONR | Rmw | ✓ |
| 23 | 204640125 | 7 | 0 | 1114 | | ONR | Rmw | ✓ |
| 24 | 204640092 | 8 | 0 | 1116 | | ONR | Rmw | ✓ |
| 25 | 203040057 | 1 | 0 | 1118 | | ONR | CTR | ✓ |
| 26 | 204530487 | 2 | 0 | — | | HRD | NO L/D | X |
| 27 | 204530392 | 3 | 0 | 1141 | | HRD | | ✓ |
| 28 | 204530388 | 4 | 0 | 1233 | | HRD | Rmw | ✓ |
| 29 | 204640462 | 5 | 0 | 1234 | | HRD | Rmw | ✓ |
| 30 | 204530501 | 6 | 0 | 1236 | | HRD | | ✓ |
| 31 | 204530474 | 1 | 0 | 1316 | | HRD | | ✓ |
| 32 | 203250852 | 2 | 0 | 1317 | | HRD | | ✓ |
| 33 | 203310161 | 3 | 0 | 1344 | | HRD | | ✓ |
| 34 | 204640123 | 4 | 0 | 1358 | | HRD | | ✓ |
| 35 | 203250854 | 5 | 0 | 1359 | JW | HRD | | ✓ |

2021-08-29, 07:30:22-16:05:22



| | mean | sigma | min | max |
|----------------------------|--------|-------|--------|--------|
| — LatGPS.1 (deg), 1 s/sec | 28.31 | 0.59 | 26.42 | 29.45 |
| — LongGPS.1 (deg), 1 s/sec | -88.05 | 2.41 | -91.02 | -82.01 |