

N42RF ERROR SUMMARY
20170819H1

Flight ID: 20170819H1

| 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.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/2017/MET/20170819H1

| Local Met Data | Takeoff KLAL (2222Z) | Landing TISX (0208Z) |
|----------------------|----------------------|----------------------|
| Dynamic Corrections | | Yes |
| AttackAngleIntercept | | 2.35256 |
| AttackAngleSlope | | 6.11627 |
| SlipAngleIntercept | | 0.23 |
| SlipAngleSlope | | 6.9614 |

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.

PSM.1 reads ~2mb higher than PSM.2(reference), PTM.1 is ~90mb higher than PSM.1/2

PQALPHA.1/2 don't match. PDALPHA.2 has a discontinuity around 0050.

PQM.4 deviates from PQM.1-3 from 0007 - 0122. TTM.2 varies from TTM.1 from 0002-0023. TDM.3 has a 10C high bias.

| Expendable Type | # deployed | # good | # transmitted |
|-----------------|------------|--------|---------------|
| ----- | ----- | ----- | ----- |
| 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: Belson/Parrish
Phone #: 863-500-3981

ACAT-4 Version = 7.1

NOAA Aircraft Operations Center - NOAA 42 Flight Manifest

| FLIGHT INFORMATION | | | | CREW MANIFEST | | | | MISSION INFORMATION | | | | | |
|-----------------------------------|------------|-------------|-------|--|-----------|-------------|-------------------------|---------------------|------------|-------------------|------------|------|---|
| FLT ID: | 20170819H1 | FLT #: | | AC: | Price | Scientists: | | | Pressure | | Dropsondes | | |
| From: | KLAL | ETD: | 1900Z | CP(s): | Rees | Carrion | Newnam | A/C Takeoff | 1008.3 | Good | Bad | Sent | |
| To: | TISX | ETA: | 2300Z | | Mitchell | | | | | Kahn | 0 | 0 | 0 |
| Block Time | | Flight Time | | Nav(s): | Gallagher | Kahn | Rossi | Wx Station Takeoff | 1009.0 | BTs | | | |
| In: | 0309 | In: | 0304 | | Urato | | | | | Heystek | 0 | 0 | 0 |
| Out: | 2312 | Out: | 2318 | FE(s): | Darby | Sanchez | Visitors: | A/C Land | 1011.3 | Good | Bad | Sent | |
| Total: | 3.9 | Total: | 3.8 | Souza, Richard | Heystek | | | | | 0 | 0 | 0 | |
| Sponsoring Org: | | NHC | | FD(s): | Belson | Kregelka | | Wx Station Land | 1011.4 | | | | |
| Program: | | PRX | | Parrish | | | | | | | | | |
| Purpose: | | Transit | | SEB: | Richards | | | Storm Number ID: | | NOAA2 WXWXA TRAIN | | | |
| | | | | Peek | | | | (ie: AL072012) | | | | | |
| | | | | SSA: | Mascaro | | | TCPOD/WSPOD Mission | | | | | |
| | | | | Sans Souci | | | (ie: NOAA2 2418A SANDY) | | | | | | |
| | | | | AVAPS: | | | | | | | | | |
| AS REQUIRED BY ORM | | | Y | N | REMARKS | | | Fix Number | Obs Number | Fix Time | SLP | | |
| VOLCANIC ASH | | | | X | | | | | | | | | |
| SCIENCE MISSION WITHIN BDRY LAYER | | | | X | | | | | | | | | |
| LACK OF PRECIPITATION | | | | X | | | | | | | | | |
| RELATIVE HUMIDITY ≥ 80% | | | | X | | | | | | | | | |
| LARGE AIR-SEA TEMP GRADIENT | | | | X | | | | | | | | | |
| HIGH SURFACE WINDS | | | | X | | | | | | | | | |
| LONG FETCH / DURATION OF SFC WND | | | | X | | | | | | | | | |
| SEA SALT ACCRETION FORECAST | | | | X | | | | | | | | | |
| SEA SALT ACCRETION OBSERVED | | | | X | | | | | | | | | |
| Additional Remarks: | | | | *Highlighted items must be completed before departure. | | | | | | | | | |
| Cockpit Gmax: | | 1.1 | Gmin: | | 0.9 | | | | | | | | |

APPENDIX 1 – P3 QC Checklist

| | |
|----------------------------|-----------------|
| Flight ID: | 20170819H1 |
| Flight Director(s): | Parrish, Belson |

| Pressure Comparison | | |
|---------------------|---------------|---------------|
| | T/O | Land |
| Aircraft | 1008.3 | 1011.3 |
| Tower | 1009.0 | 1011.4 |

UWZ.d mean: 0.10

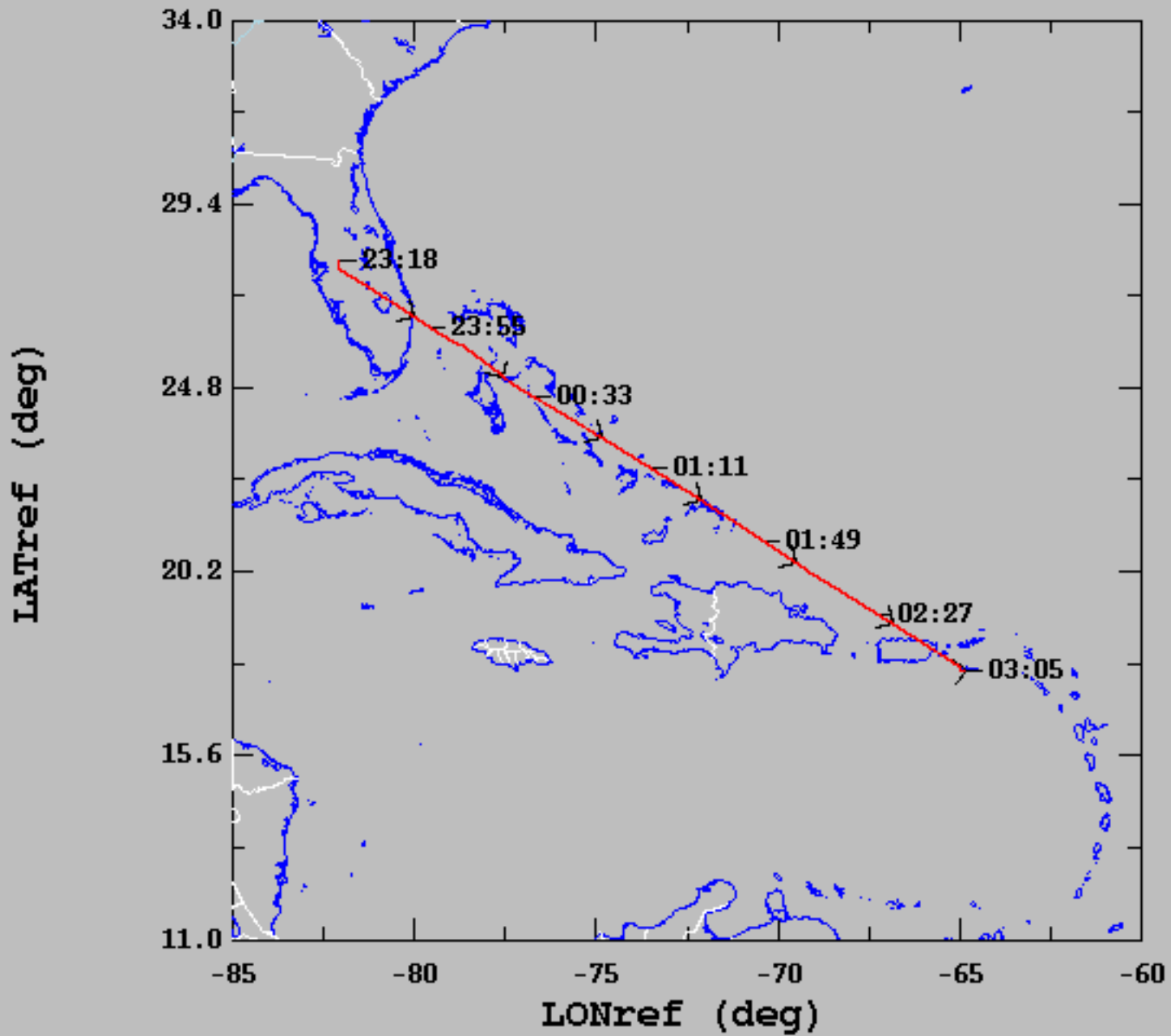
| | Raw 1Hz Mean File Parameters | | | | C File Parameters | |
|---|--|--|--|---|--|--|
| <input checked="" type="checkbox"/> Accelerometer | <input checked="" type="checkbox"/> AccAXI.1 | <input checked="" type="checkbox"/> AccAYI.1 | <input checked="" type="checkbox"/> AccAZI.1 | <input checked="" type="checkbox"/> AccZfilter-GPS.1 | <input checked="" type="checkbox"/> AccZref | |
| | <input checked="" type="checkbox"/> AccAXI.2 | <input checked="" type="checkbox"/> AccAYI.2 | <input checked="" type="checkbox"/> AccAZI.2 | <input checked="" type="checkbox"/> Acc-Zfilter-GPS.2 | | |
| | <input checked="" type="checkbox"/> AccAXI-GPS.1 | <input checked="" type="checkbox"/> AccAYI-GPS.1 | <input checked="" type="checkbox"/> AccAZI-GPS.1 | | | |
| | <input checked="" type="checkbox"/> AccAXI-GPS.2 | <input checked="" type="checkbox"/> AccAYI-GPS.2 | <input checked="" type="checkbox"/> AccAZI-GPS.2 | | | |
| <input checked="" type="checkbox"/> Altitude | <input checked="" type="checkbox"/> AltGPS.1 | <input checked="" type="checkbox"/> Alti-GPS.1 | <input checked="" type="checkbox"/> AltPaADDU.1 | <input checked="" type="checkbox"/> AltRA.1 | <input checked="" type="checkbox"/> ALTref | <input checked="" type="checkbox"/> AltRA1.c |
| | <input checked="" type="checkbox"/> AltGPS.2 | <input checked="" type="checkbox"/> Alti-GPS.2 | <input checked="" type="checkbox"/> AltBCADDU.1 | <input checked="" type="checkbox"/> AltRA.2 | <input checked="" type="checkbox"/> ALTPA.d | <input checked="" type="checkbox"/> AltRA2.c |
| | <input checked="" type="checkbox"/> AltGPS.3 | | | | <input checked="" type="checkbox"/> ALTGA.d | |
| | <input checked="" type="checkbox"/> AltGPS.4 | | | | | |
| <input checked="" type="checkbox"/> Ground Speed | <input checked="" type="checkbox"/> GsXI-GPS.1 | <input checked="" type="checkbox"/> GsYI-GPS.1 | <input checked="" type="checkbox"/> GsZI-GPS.1 | | <input checked="" type="checkbox"/> GSXref | |
| | <input checked="" type="checkbox"/> GsXI-GPS.2 | <input checked="" type="checkbox"/> GsYI-GPS.2 | <input checked="" type="checkbox"/> GsZI-GPS.2 | | <input checked="" type="checkbox"/> GSYref | |
| | | | | | <input checked="" type="checkbox"/> GSZref | |
| <input checked="" type="checkbox"/> Lat/Lon | <input checked="" type="checkbox"/> LatGPS.1 | <input checked="" type="checkbox"/> Lati-GPS.1 | <input checked="" type="checkbox"/> LongGPS.1 | <input checked="" type="checkbox"/> Loni-GPS.1 | <input checked="" type="checkbox"/> LATref | |
| | <input checked="" type="checkbox"/> LatGPS.2 | <input checked="" type="checkbox"/> Lati-GPS.2 | <input checked="" type="checkbox"/> LongGPS.2 | <input checked="" type="checkbox"/> Loni-GPS.2 | <input checked="" type="checkbox"/> LONref | |
| | <input checked="" type="checkbox"/> LatGPS.3 | | <input checked="" type="checkbox"/> LongGPS.3 | | | |
| | <input checked="" type="checkbox"/> LatGPS.4 | | <input checked="" type="checkbox"/> LatGPS.4 | | | |
| <input checked="" type="checkbox"/> Pressure | <input checked="" type="checkbox"/> PDALPHA.1 | <input checked="" type="checkbox"/> PQALPHA.1 | <input checked="" type="checkbox"/> PQM.1 | <input checked="" type="checkbox"/> PSM.1 | <input checked="" type="checkbox"/> PDALPHAref | <input checked="" type="checkbox"/> PQMref |
| | <input checked="" type="checkbox"/> PDALPHA.2 | <input checked="" type="checkbox"/> PQBETA.1 | <input checked="" type="checkbox"/> PQM.2 | <input checked="" type="checkbox"/> PSM.2 | <input checked="" type="checkbox"/> PDBETAref | <input checked="" type="checkbox"/> PQ.c |
| | <input checked="" type="checkbox"/> PDBETA.1 | | <input checked="" type="checkbox"/> PQM.3 | <input checked="" type="checkbox"/> PTM.1 | <input checked="" type="checkbox"/> PQALPHAref | <input checked="" type="checkbox"/> PSMref |
| | <input checked="" type="checkbox"/> PDBETA.2 | | <input checked="" type="checkbox"/> PQM.4 | | <input checked="" type="checkbox"/> PQBETAref | <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 | <input checked="" type="checkbox"/> PitchRateI.1 | <input checked="" type="checkbox"/> RollI.1 | <input checked="" type="checkbox"/> RollRateI.1 | <input checked="" type="checkbox"/> PITCHref | |
| | <input checked="" type="checkbox"/> PitchI.2 | <input checked="" type="checkbox"/> PitchRateI.2 | <input checked="" type="checkbox"/> RollI.2 | <input checked="" type="checkbox"/> RollRateI.2 | <input checked="" type="checkbox"/> ROLLref | |
| | <input type="checkbox"/> PitchI.3 | <input type="checkbox"/> PitchRateI.3 | <input type="checkbox"/> RollI.3 | <input type="checkbox"/> RollRateI.3 | | |
| <input checked="" type="checkbox"/> Temp/Dewpt | <input checked="" type="checkbox"/> TTM.1 | <input checked="" type="checkbox"/> TDM.1 | <input checked="" type="checkbox"/> TRadD.1 | | <input checked="" type="checkbox"/> TD.c | <input checked="" type="checkbox"/> TTMref |
| | <input checked="" type="checkbox"/> TTM.2 | <input checked="" type="checkbox"/> TDM.2 | <input checked="" type="checkbox"/> TRadS.1 | | <input checked="" type="checkbox"/> TDMref | <input checked="" type="checkbox"/> TA.d |
| | <input type="checkbox"/> TTM.3 | <input type="checkbox"/> TDM.3 | <input type="checkbox"/> TRadU.1 | | | |
| <input checked="" type="checkbox"/> Miscellaneous (must check) | | | | | <input checked="" type="checkbox"/> UWZ.d | <input checked="" type="checkbox"/> WS.d |
| | | | | | <input checked="" type="checkbox"/> DPJ_WSZ | <input checked="" type="checkbox"/> WD.d |
| | | | | | <input checked="" type="checkbox"/> HUM | |

FLID_Mission Documents.pdf:

| | |
|-------------------------------------|--|
| <input checked="" type="checkbox"/> | Error Summary |
| <input checked="" type="checkbox"/> | Crew Manifest |
| <input checked="" type="checkbox"/> | QC checklist |
| <input checked="" type="checkbox"/> | Dropwindsonde Log(s) – AVAPS and FD if completed |
| <input checked="" type="checkbox"/> | Flight Track |
| <input checked="" type="checkbox"/> | Miscellaneous FD notes |

NOTES:

2017-08-19, 23:18:00-27:05:00



| | mean | sigma | min | max |
|-------------------------|--------|-------|--------|--------|
| — LATref (deg), 1 s/sec | 22.76 | 3.10 | 17.69 | 27.99 |
| — LONref (deg), 1 s/sec | -73.45 | 5.28 | -82.06 | -64.80 |

20170819H1

KLAL - TISX

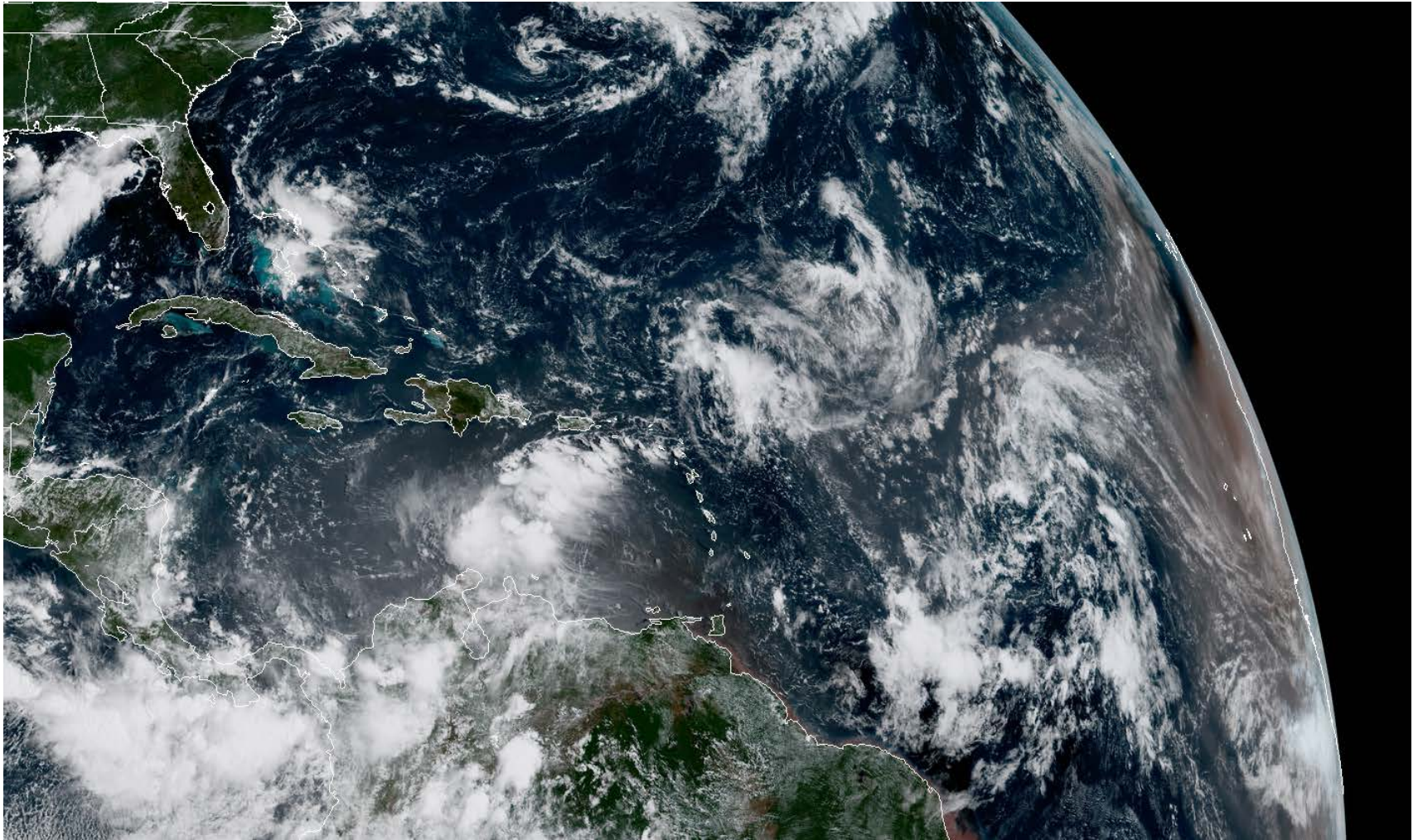
AOC

T/O 1900Z

ETE 4+00

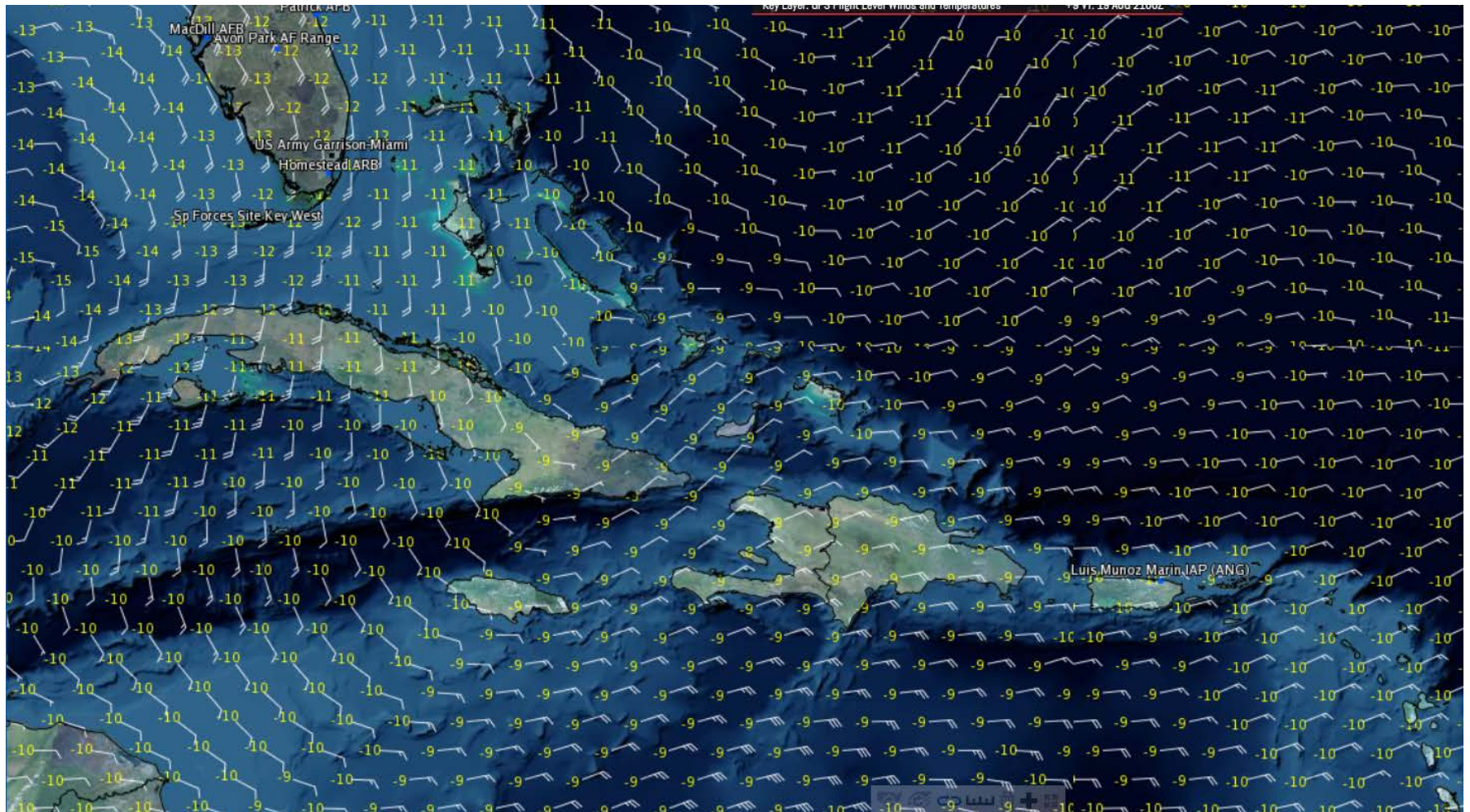
NOAA2 WXWXA TRAIN

Transit



Transit FL210

VT 19/21Z



Hazards

- Icing – light rime possible in cloud above FL200
 - Freezing / Melting Altitude 16,000ft
- Turbulence – in convection
- Volcanic Ash - Negative
- HD - no
- Rapid Intensification – N/A
- Sea Salt Accretion Forecast – Negative
 - Boundary Layer - No
 - Lack of Precip - No
 - RH > 80% - No
 - Large sea surface / air temperature gradient - No
 - High Surface Winds - No
 - Long fetch / duration - No

Airfield Wx

- KLAL 191550Z 00000KT 10SM FEW025 31/23 A3003
- **KLAL 191125Z 1912/2012 VRB03KT P6SM FEW030 SCT250**
FM192100 VRB03KT P6SM VCTS BKN040CB
FM200000 VRB03KT P6SM BKN050
FM201000 VRB03KT P6SM FEW080 SCT200
- TISX 191553Z 08018KT 10SM SCT023 32/26 A2991 RMK AO2 SLP127 T03220256
- TISX 191120Z 1912/2012 06015G23KT P6SM VCSH FEW017
FM191400 08015G25KT P6SM VCSH FEW025 SCT060
FM192300 08010KT P6SM VCSH FEW030