|                             | FLIGHT         | NFORMA   | ATION       |                       |   |               | CREWI           | MANIFEST           |                     | MISSION IN     | FORMATI   | ON         | 20678 |  |
|-----------------------------|----------------|----------|-------------|-----------------------|---|---------------|-----------------|--------------------|---------------------|----------------|-----------|------------|-------|--|
| FLT ID:                     | 20180912H2     | FLT #:   | 2           |                       |   | AC:           | Price           | Scientists:        | Pres                | Pressure       |           | Dropsondes |       |  |
| From:                       | TISX           | ETD:     | 2130Z       |                       |   |               | Kahn            |                    |                     |                | Good      | Bad        | Sent  |  |
| To:                         | TISX           | ETA:     | 8+00        |                       |   | CP(s):        | Abitbol         | Joe Sapp (NESDIS)  | A/C Takeoff         |                |           |            |       |  |
| E                           | Block Time     |          | Flight Time |                       |   | Neuro         | Sloan           |                    | Wx Station          |                | 15        | 0          | 15    |  |
| Inc                         |                | In       | 17-         | ~                     |   | Nav(s):       | Richards        |                    | Takeoff             |                |           | BTs        |       |  |
| In:                         | 0632           | In:      | 062         | 9                     |   |               | Heystek         | Gus Alaka (HRD)    | A/C Land            |                | Good      | Bad        | Sent  |  |
| Out:                        | 2121           | Out      | 2122        |                       |   | FE(s)         | Sanchez         | Kelly Ryan(HRD)    | A/C Land            |                |           |            |       |  |
| Out.                        | 2126           | Out:     | 2132        |                       |   | FD(s):        | Sears           | Jon Zawislak (HRD) | Wx Station          |                | ]         |            |       |  |
| Total:                      | ~ 1            | Total:   | 0.6         | ÷                     |   | FD(S).        |                 | Visitors:          | Land                |                |           |            |       |  |
| Total.                      | Yel            | Total.   | 9,6         | 4                     |   | SEB:          | Service Service |                    | Storm Numbe         | er ID:         | AL0920    | 18         |       |  |
| Sponsoring Org: NHC         |                |          | SED.        | Peek                  |   | (ie: AL072012 | 2)              |                    |                     |                |           |            |       |  |
| Program                     | n:             |          |             |                       |   | SSA:          | Richards        |                    | TCPOD/WSPOD Mission |                | 0209A I   | SAAC       | -     |  |
| Purpose: ISAAC              |                |          | 55A.        | (ie: NOAA2 2418A SAND |   | 418A SANDY)   |                 |                    |                     |                |           |            |       |  |
| ruipose                     | 5.  10/v       | ic       |             |                       |   | AVAPS:        | Warnecke        |                    | OBSER               |                | VATIONS   |            |       |  |
|                             | AS REQUIR      | ED BY OF | RM          | Y                     | N |               | REM             | IARKS              | Fix Number          | Obs Number     | Fix Tim   | e          | SLP   |  |
| VOLCA                       | NIC ASH        |          |             |                       | X |               |                 |                    |                     |                |           |            |       |  |
| SCIENC                      | CE MISSION WI  | HIN BDF  | RY LAYER    |                       | Х |               |                 |                    |                     |                |           |            |       |  |
| LACK C                      | OF PRECIPITATI | ON       |             |                       | X |               |                 |                    |                     |                |           |            |       |  |
| RELAT                       | IVE HUMIDITY ≥ | 80%      |             | X                     |   |               |                 |                    |                     |                |           |            |       |  |
| LARGE                       | AIR-SEA TEMP   | GRADIE   | NT          |                       | Х |               |                 |                    |                     |                |           |            |       |  |
| HIGH S                      | URFACE WIND    | 3        |             | X                     |   |               |                 |                    |                     |                |           |            |       |  |
| LONG I                      | ETCH / DURAT   | ION OF S | SFC WND     | X                     |   |               | -               |                    |                     |                |           |            |       |  |
| SEA SALT ACCRETION FORECAST |                |          |             |                       |   |               | )               | 2                  |                     |                |           |            |       |  |
| SEA SA                      | ALT ACCRETION  | OBSER    | VED         |                       |   |               |                 |                    |                     |                |           |            |       |  |
| Additio                     | nal Remarks:   |          |             |                       |   |               |                 | *Highlig           | hted items must l   | pe completed b | efore dep | arture.    |       |  |
| Cockpi                      | t Gmax:        |          | Gmin:       |                       |   |               |                 |                    |                     |                |           |            |       |  |

N42RF ERROR SUMMARY 20180912H2

Flight ID: 20180912H2

| 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/2018/MET/20180912H2

| Local Met Data   | Takeoff TISX ( | (2132Z) La | nding TISX (0629Z) |
|------------------|----------------|------------|--------------------|
| Dynamic Correcti | ons            |            | Yes                |
| AttackAngleInter | cept           |            | 2.31252            |
| AttackAngleSlope |                |            | 6.06758            |
| SlipAngleInterce | pt             |            | 0.4295             |
| SlipAngleSlope   |                |            | 7.17033            |
| SlipAngleInterce |                |            | 0.4295             |

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.

Note: QC accomplished by Mike Holmes (mike.holmes@noaa.gov).

PDAlpha.2 INOP and TDM.1 was unrepresentavive throughout flight. Neither of these instrument failures affected the real-time collection or the post processed data as neither were seleceted as the source instrument.

| Expendable Type | <pre># deployed</pre> | # good | <pre># transmitted</pre> |
|-----------------|-----------------------|--------|--------------------------|
|                 |                       |        |                          |
| Dropsondes      | 15                    | 15     | 15                       |
| Test sondes     | 0                     | 0      | 0                        |
| AXBTs           | 0                     | 0      | 0                        |
| AXCPs           | 0                     | 0      | 0                        |
| AXCTDs          | 0                     | 0      | 0                        |
| UAS             | 0                     | 0      | 0                        |
|                 |                       |        |                          |

Flight Director: Sears
Phone #:

ACAT-4 Version = 7.2.2

## **APPENDIX 1 – P3 QC Checklist**

| Flight ID:             | 20180912H2 |
|------------------------|------------|
| Flight<br>Director(s): | Stars      |

| Pressure Comparison |      |      |  |  |  |  |  |
|---------------------|------|------|--|--|--|--|--|
| ,                   | T/O  | Land |  |  |  |  |  |
| Aircraft            | 1009 |      |  |  |  |  |  |
| Tower               | 1210 |      |  |  |  |  |  |

| UWZ.d mean: | 0,03 | m/s |
|-------------|------|-----|
|-------------|------|-----|

| (               | Raw 1Hz Mea               | C File Parameters  |  |
|-----------------|---------------------------|--|--|
| Accelerometer   | YAÇCAXI.1 ACCAYI.1        | AçcAZI.1 AceZfilter-GPS.1  | AccZref  |
| ,               | AccAXI.2 AccAYI.2         | AçcAZI.2 Acc-Zfilter-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 AltBA1.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   |
| ULat/Lon        | LatGPS.1 Lati-GPS.1       | LORGPS.1 LONI-GPS.1  | LATref   |
|                 | LatGPS.2 Lati-GPS.2       | LonGPS.2 Loni-GPS.2  | LONref   |
|                 | LatGPS.3                  | LonGPS.3   |  |
|                 | LatGPS.4                  | LatGPS.4   |  |
| Pressure        | PDALPHA.1 POALPHA.1       | POM.1 PSM.1  | (PDALPHAref (P@Mref  |
|                 | PDALPHA.2 POBETA.1        | PQM.2 PSM.2  | PDBETAref PQ.c   |
|                 | PDBETA.1                  | PQM.3 PTM.1  | POALPHAref PSMref  |
| - VAIN Constant | UPDBETA.2                 |  | POBETAref PS.c   |
| Air Speed       |                           | and the second sec | TAS.d TAS.d  |
| Pitch/Roll      | Pitchl.1 PitchRatel.1     |  | PITCHref   |
|                 | Pitchl.2 PitchRatel.2     | RollRatel.2  | ROLLref  |
| Kr (D)          | Pitchl.3 PitchRatel.3     | RollI.3 RollRatel.3  |  |
| Temp/Dewpt      | TIM-1 TEDM.1              |  | fD.c LFTMref   |
| -               | TTM.2 (TDM.2 /            | TRadS.1 CRadU.1  | TDMref TA.d  |
| UMiscellaneous  | TTM.3 TDM.3               |  | twz.d 4ws.d  |
|                 |                           |  | any firm and an a firm and an a second and a |
| (must check)    |                           |  | бр <u>ј_wsz</u> 4wd.d<br>Ним   |
| ,               |                           | 1  | пом  |

## FLID\_Mission\_Documents.pdf:

| V | Error Summary                                    |
|---|--|
| N | Crew Manifest                                    |
| V | QC checklist                                     |
| V | Dropwindsonde Log(s) – AVAPS and FD if completed |
| ~ | Flight Track                                     |
| ~ | Miscellaneous FD notes                           |

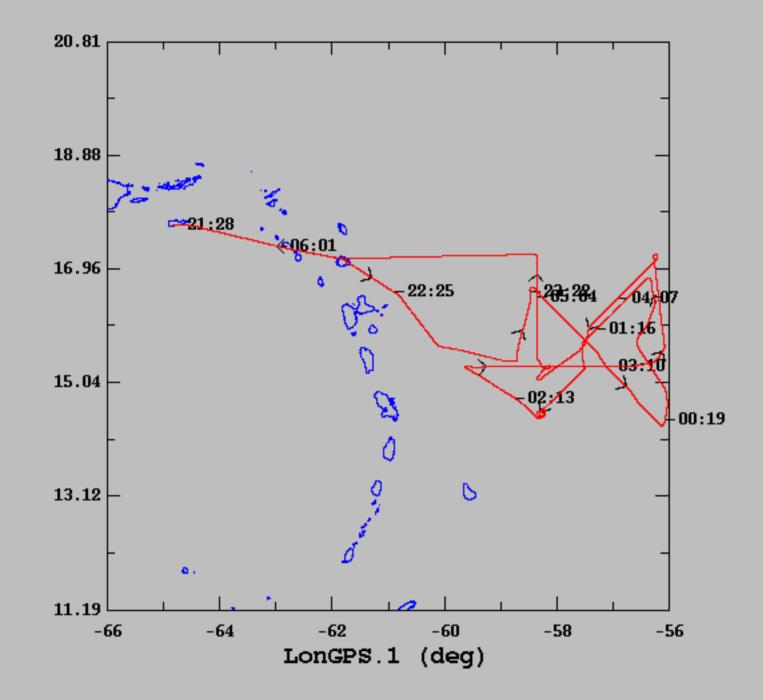
## NOTES:

PDALALA. Z 2008. JDM. / UN representative throughout Flight. > used JDM. Z

| /         | Aurricane 2018   | ED N<br>Mission | 42RF   | AVAPS  | DROP L | _O <u>G</u><br>Elight | Lead Tech: Mike Mascaro |      |
|-----------|--|-----------------|--------|--------|--------|-----------------------|-------------------------|------|
| /         | Aurricane 2018<br>(: <u>2132                                  </u> | Landing:        |        |        | FIt D  | ir:                   | ID: 20180912HZ          |      |
| ρ         | Sonde Serial   | Rcvr            | Press  | Launch |        | Charge                | Comments                | Good |
| <u>#,</u> | #  | #               | Offset |        |        | \$\$ To               |                         | ?    |
|           | 152225033  | 1               | -4     | 2258   | JW     | NWS                   | . Inband Legt           |      |
| 2         | 164345042  | 2               | V.     | 2324   | -      | 1                     | Inbound Log #1.         | V    |
| 3         | 152235099  | 3               | -3     | 2353   |        |                       |                         | V    |
| 4,        | 169345047  | 4               | -3     | 0016   |        |                       |                         | V    |
| 5         | 164015701  |                 | - 7    | 0058   |        |                       |                         | V    |
| ÝQ.       | 163445155  | 2.              | .3     | 0115   |        |                       |                         | V    |
| X         | 164345036  | 3               | .3     | 0128   |        | Coloradore            | ~                       |      |
| 8         | 164 345025   | 4               | -,6    | 0144   |        |                       | . /                     | V    |
| Å,        | 164345053  | 1               | -,3    | 0228   |        | KOMANJINATILOOD       |                         | 4    |
| 76,       | 164 345085   | 2               | -,8    | 6258   |        | Many all little       | <u></u>                 | Ń    |
| M         | 1.64.425028  | 3.4             | Ø      | 0325   |        | (Incentration         |                         | V    |
| 42        | 16A 425019   | 2               | Ø      | 0353   |        |                       |                         | V .  |
| 13,       | 164345034  | 23              | -3     | 0445   |        |                       | Center Drap             | V    |
| 14.       | 164345176  | 3               | -3     | 0458   |        | -                     | 8                       | V    |
| 45        | 16A425009  | 4               | -2     | 0514   | ~      | J.                    |                         | b    |
| · 16      |  | *               |        |        |        |                       |                         |      |
| 17        |  |                 |        |        |        |                       |                         |      |
| 18        |  |                 |        |        |        |                       |                         |      |
| 19        |  |                 |        |        |        |                       |                         |      |
| 20        | х.   |                 |        |        |        |                       | ,                       |      |
| _21       |  |                 |        | -      |        |                       |                         |      |
| 22        |  |                 |        |        |        |                       | N                       |      |
| 23        |  |                 |        |        |        |                       |                         |      |
| 24        |  |                 |        |        |        |                       |                         |      |
| 25        |  |                 |        |        |        |                       | <b>`</b>                |      |
| 26        |  |                 |        |        |        |                       |                         |      |
| 27        |  |                 |        |        |        | N                     |                         |      |
| .28       |  |                 |        |        |        |                       |                         |      |
| 29        |  |                 |        |        |        |                       |                         |      |
| 30        | -  |                 |        |        |        |                       |                         |      |
| 31        |  |                 |        |        |        |                       |                         |      |
| 32        |  |                 |        |        |        |                       |                         |      |
| 33        |  |                 |        |        |        |                       |                         |      |
| 34        |  |                 |        |        |        |                       |                         |      |

## 20180912H2 Flight Track

2018-09-12, 21:28:18-30:01:24



LatGPS.1 (deg)

| LatGPS.1 | (deg), | 1 | s/sec |
|----------|--------|---|-------|
| LonGPS.1 | (deq), | 1 | s/sec |

| mean   | sigma | min    | max    |
|--------|-------|--------|--------|
| 15.96  | 0.91  | 14.31  | 17.70  |
| -58.58 | 2.12  | -64.82 | -56.01 |