

ADOCWE

TC Genesis DANNY

# AOC-Personne

vionics:

## Participating Scientists / Visitors / AOC

Name (Last, First)

### Activity on Aircraft

~~Affiliation~~

SCI - HRD

SCI - HRD

SCI - HRD

UMASS

Takeoff

$P_s$  1012.6 mb

STA 1013.7 mb

## Landings

Ps 104.0

~~100~~ STA 1015.2

Proposed/Actual Mission Remarks (Recco, Fixes, Storm, PENET, NHOP #)

29.98 Landing  
Altitude

2994 Takeoff KMCF Altim (1013.9)

5 DR 5, 7, 11, 12, 14

missing drops + LAST RPT, rec'd

19 ~~ABT~~ all good

15 sondes (1 failed below 3500)

OB16

(sent posted to XCHAT)

TRX  
via  
FTP

GET  
FILES

U.S. Dept. of Commerce / NOAA / Aircraft Operations Center

AOCWF

File ID:

090827I2

Time Off:

2005Z

Time On:

0334Z

A/C (Take Off)

Wx Station (Take Off)

A/C (Land)

Wx Station (Land)

Pressure

1012.6

1013.7

1014.0

1015.2

Number

Data Disposition / Date / Quality

Flt Lvl Tapes

2

Radar Tapes

1

Cloud Physics Tapes

Video Tapes

AXBT

19

all good

AXCP

AXCTD

Dropsondes

15

(one failed winds below 3500 ft)

launch at 2238Z

Video

Forward

Left Side

Right Side

Down

Remarks

Time On

Time Off

Rate

Remarks

# N43RF ERROR SUMMARY

## HURRICANE 2009 TROPICAL STORM DANNY

**Flight ID: 090827I2**

| <u>Sensor or system</u>   | <u>Number or Name</u> |
|---------------------------|-----------------------|
| INE (for wind derivation) | INE1                  |
| Accelerometer             | ACC1                  |
| Temperature Probe         | TT1                   |
| Dew Point Probe           | TDM2X (EDGETECH)      |
| Static Pressure           | PSF                   |
| Dynamic Pressure          | PQF1                  |
| Vert. Wind                | ALTI1                 |
| Constants File            | n43_hur09v2.adc       |
| Project Directory         | /acdata/2009/hur09/P3 |

### Notes:

There were two instances after takeoff of bad or missing inertial data being skipped in the creation of the netCDF file resulting in data gaps:

22:08:30 - 22:08:45Z

01:13:51 - 01:13:59Z

The second gap did not result in any subsequent disruption to the data in the first second that followed. Following the first gap, calculation of final met parameters in the RXC file does result in erroneous values for vertical winds around 2208Z that should be ignored.

Dewpoint sensor #2...TDM2 (EdgeTech) had several occurrences where its' value was greater than ambient temperature thus producing humidity values above 100% (for example, at 22:23:01Z, 22:38:09Z, and 00:05:50Z). For most of these occurrences TDM2 output was not modified. However TDM2 data were modified to remove what would have been extreme RH spikes from 00:02:23 – 00:02:47Z, 00:05:23 – 00:05:44Z, and 01:06:58 – 01:08:12 Z (where there were three individual spikes during that final interval). Manual patching using statistical methods with a weighting factor of between 0.01 and 0.10 was employed.

All other flight level instruments worked optimally during the flight.

The RINU1550 GPS altitude output was used for extrapolating sea level pressure from flight altitude. For the second day in a row, Danny continued to be a very poorly organized system. Therefore, there were no attempts made at a low level

center drop point, but rather at what was estimated to be near the center of the mid-level vortex at 22:23:07Z. The extrapolated sea level pressure from flight altitude, 700 mb or 10,000 feet, at the time of this release was 1010.5 mb with a splash sonde pressure of 1010 mb.

Fifteen dropsondes (15) were deployed during the mission, all but one were good (one failed below 3500 feet). There were 19 AXBT releases, all of them good.

**SPECIAL NOTE!!!** The variable names `dpj_wgs`, `dpj_was` and `dpj_wz` in the `netCDF` file represent vertical ground, vertical air and vertical wind speeds, respectively, computed using Dave Jorgensen's vertical wind algorithm. It is recommended that these values be used for vertical wind analysis.

|                          | <b>Takeoff</b> | <b>Landing</b> |
|--------------------------|----------------|----------------|
|                          | 2005Z          | 0334Z          |
| Aircraft Static Pressure | 1012.6mb       | 1014.0mb       |
| Corrected Tower Pressure | 1013.7mb       | 1015.2mb       |

Flight Directors: Richard Henning and Jack Parrish (813) 828-3310 ext. 3086





## PAGE OF

(G) - GPS (I) - INS (R) - RADIO (N) - VISUAL (C) - CELESTIAL (D) - DR

[illegible]