



NOAA G-IV ERROR SUMMARY
HURRICANE 2007
Dist. in Gulf of Mexico



Flight ID: N070920

| <u>Sensor or system</u> | <u>Number or Name</u> |
|---------------------------|-----------------------|
| INE (for wind derivation) | VEW_PITR, VNS_PITR |
| Accelerometer | ACINS_PITR |
| Temperature Probe | AT3 |
| Dew Point Probe | DPRC |
| Static Pressure | PS2M |
| Dynamic Pressure | QC2M |
| Attack Angle | AKRD1 |
| Slip Angle | SSRD1 |
| Vert. Wind | PALT |
| Constants File | 49cal071 |
| Project Directory | /proj/706 |

Local surface observation not current or unavailable.

Take off: 1728Z Land: 0131Z

Notes:

There were no data gaps.

The Total Temperature #2 (TT2) probe was not available for this mission.

Dynamic slip pressure #1...DBP1...exhibited dropout from 214239Z – 214247Z.

This did have a minor impact on the horizontal and vertical wind data during this time frame.

Dynamic slip pressure #2...DBP2...had erroneous data from 211115Z – 010840Z. Both dewpoint sensors were balanced shortly after the aircraft reached 41000 feet. For DPR the sensor was balanced twice between 184915Z – 185720Z, and for DPL it was balanced once between 185834Z – 190225Z. The balancing generated erroneous data over these time periods.

All other instruments worked optimally during the flight.

Thirty-five (35) drops with 32 tempdrop messages successfully sent to NHC and made it into the 21/00Z model run. No drop was made at point 33 due to severe thunderstorms present at that location.

| | Takeoff | Landing |
|--------------------------|----------------|----------------|
| Aircraft Static Pressure | 1008.6mb | 1007.9mb |
| Corrected Tower Pressure | 1008.6mb | 1008.3mb |

Flight Director: A. Barry Damiano (813) 828-3310 ext. 3073

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

AOCWF1

| | | |
|-------------------------|-----------------------------|--|
| Flt ID: N070920 | From: KMCF | To: KMCF |
| Flt No: 07-076 | Blk In: 0141Z | ATA: 0131Z |
| ETD: 1730Z | Blk Out: 1715Z | ATD: 1728Z |
| ETE: | Blk Time: 8:26 (8.4) | Flt Time: 8:03 (8.1) |
| Sponsor Org: NHC | Program: HURRICANE | Purpose: DISTURBANCE IN E. GULF OF MEXICO |

AOC Personnel

| | |
|---------------------------|---------------------------------|
| AC: HAGAN | Sys Eng: |
| CP: ODELL / GLOVER | Data Sys: ROGERS |
| Nav: | Radar: |
| FE: | GPS/BT: DEFELO / RASLO |
| FD: DAMIANO | Cld Phys: |
| Avionics: | ASPEN: ALMEIDA / MAYEAUX |

Participating Scientists / Visitors / AOC

| Name (Last, First) | Activity on Aircraft | Affiliation |
|--------------------|----------------------|-------------|
| | | |
| | | |
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Proposed/Actual Mission Remarks (Recco, Fixes, Storm, PENET, NHOP #) **Ø 3 IIA SURV**

| | | | | | |
|-----------------|--------------------------|--------------------|-------------|--|---------------------------------|
| Bal DPTS | 2115Z | TEAL 70 | 26.0 | Did not drop at pt 33 due to SUR WX | Filed DPP2 2130Z |
| 1851Z | Imp rise | 4-shr - 18Z | 83.5 | | |
| 1857Z | NOGLDS RT PLT | | | | |

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AOCWF2

Flt ID: *N070920* Time Off: *1728Z* Time On: *0131Z*

| | | | | |
|----------|----------------|---|---------------|-----------------------|
| | A/C (Take Off) | Wx Station (Take Off) | A/C (Land) | Wx Station (Land) |
| Pressure | <i>1008.6</i> | 29.82 ^{1008.6} <i>29.80</i> | <i>1007.9</i> | <i>29.78 / 1008.3</i> |

| | Number | Data Disposition / Date / Quality |
|---------------------|-----------|---|
| Flt Lvl Tapes | <i>1</i> | |
| Radar Tapes | | |
| Cloud Physics Tapes | | |
| Video Tapes | | |
| AXBT | | |
| AXCP | | |
| AXCTD | | |
| Dropsondes | <i>35</i> | <i>32 good; 1 fast fall; one low PTH & 2 no winds 32 messages sent to NHC</i> |

Video

| | Forward | Left Side | Right Side | Down | Remarks |
|----------|---------|-----------|------------|------|---------|
| Time On | | | | | |
| Time Off | | | | | |
| Rate | | | | | |

Remarks *1625Z 080 24 2902
22*

0131Z heavy data

N49RF AOC GPS Dropwindsonde Log

2655
8420
2658 2206Z
8407 46
35
1010

Flight ID N070920 Flight Director AWMRAWO Page 1 of 2

Mission ID O3IFA Storm SURV 10

| Drop# | Sonde ID# | Time (UTC) | Lat (°N) | Lon (°W) | Sfc Pres mb | WX Cond. | Comments | OB # | SatComm Failure | Send Time (UTC) |
|-------|-----------|------------|----------|----------|-------------|-----------------------|-----------------------------|------|-----------------|-----------------|
| 1 | 060226500 | 175644 | 2531 | 8306 | | ovc cbs | | | | |
| 2 | 054556477 | 181410 | 2459 | 8514 | 1010 | THN cte SCT c8 | | | | |
| 3 | 054556333 | 182143 | 2306 | 8412 | | CLR/SCT c8 | | | | |
| 4 | 054556276 | 184625 | 2304 | 8559 | | CLR/SCT c8 | | | | |
| 5 | 054626047 | 184959 | 2329 | 8609 | | CLR/SCT c8 | | | | |
| 6 | 060226330 | 190357 | 2504 | 8642 | | CLR/THN cte/SCT c8 | | | | |
| 7 | 054626251 | 191336 | 2533 | 8751 | | ovc cbs | | | | |
| 8 | 054556475 | 193111 | 2330 | 8830 | | THN cte h/CLR/SCT c8 | | | | |
| 9 | 05466245 | 195204 | 2152 | 9002 | | ovc cbs | | | | |
| 10 | 061229061 | 201128 | 2136 | 9223 | | CLR/SCT c8 | | | | |
| 11 | 060226484 | 203000 | 2330 | 9100 | | CLR/SCT c8 | | | | |
| 12 | 061229060 | 204426 | 2500 | 9000 | | THN cte/SCT c8 | NO WIND | | | |
| 13 | 061229147 | 204726 | 2518 | 8946 | | THN cte/SCT c8 | | | | |
| 14 | 061329229 | 210053 | 2639 | 8855 | | THN cte/SCT c8 | | | | |
| 15 | 054556470 | 211724 | 2604 | 9101 | | CLR/SCT c8 | | | | |
| 16 | 054556281 | 212803 | 2654 | 9201 | | CLR | | | | |
| 17 | 060226478 | 213815 | 2558 | 9255 | | CLR | | | | |
| 18 | 061229049 | 214939 | 2450 | 9210 | | CLR | | | | |
| 19 | 054626158 | 215852 | 2400 | 9300 | | CLR/SCT c8 | | | | |
| 20 | 060226499 | 220958 | 2306 | 9401 | | CLR/SCT c8 | | | | |
| 21 | 061319101 | 222053 | 2402 | 9455 | | CLR/ovc c8 | | | | |
| 22 | 054556380 | 223119 | 2561 | 9405 | | CLR/RPN c8 | NO PTH | | | |
| 23 | 054556471 | 223438 | 2518 | 9418 | | CLR/SCT c8 | Come back later - then gone | | | |

N49RF AOC GPS Dropwindsonde Log

June, 1980

Flight ID N676920

Flight Director AMIDANT

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Mission ID 03ITM

Storm SVR

| Drop# | Sonde ID# | Time (UTC) | Lat (°N) | Lon (°W) | Sfc Prs mb | WX Cond. | Comments | OB # | SatComm Failure | Send Time (UTC) |
|-------|-----------|------------|----------|----------|------------|---------------|----------|------|-----------------|-----------------|
| 24 | 054556473 | 224250 | 2601 | 9455 | | CLR/BLU/SET | | | | |
| 25 | 054556508 | 225355 | 2700 | 9400 | | CLR/BLU/SET | | | | |
| 26 | 054626266 | 230518 | 2800 | 9308 | | CLR | | | | |
| 27 | 054556503 | 231532 | 2832 | 9417 | | CLR | | | | |
| 28 | 060226505 | 230327 | 2857 | 9159 | | CLR | | | | |
| 29 | 054556474 | 234413 | 2802 | 9058 | | CLR | | | | |
| 30 | 054626060 | 232858 | 2800 | 8940 | | THICK/BLU/SET | | | | |
| 31 | 054626223 | 000949 | 2739 | 8738 | | CLR/BLU/SET | | | | |
| 32 | 054626231 | 002548 | 2918 | 8838 | | CLR/BLU/SET | | | | |
| 33 | 054626044 | 003422 | 2959 | 8750 | | DARK | | | | |
| 34 | 054626104 | 004445 | 2900 | 8658 | | DARK | | | | |
| 35 | 054626241 | 005857 | 2832 | 8509 | | DARK | | | | |

80
9W
25W
400

N49RF AVAPS DropSonde Log

Project: HURRICANE 07 Flight ID: D70920N Flt Dir: DAMIAND

Mission: TD-10 Flight #: 1 Status: Sys 1 Sys 2 Launcher S/N: 02

| Drop # | Sonde Serial Number | Chn. # | Time (Zulu) | Press. offset | Winds time | Operator Initials | Comments /Status/ Failure Reason | \$ | GOOD <input type="checkbox"/> |
|--------|---------------------|--------|-------------|---------------|------------|-------------------|----------------------------------|----|-------------------------------------|
| 1 | 060 226 500 | 1 | 1756 | 0 | 58 | GD | | | <input checked="" type="checkbox"/> |
| 2 | 054 556 474 | 3 | 1814 | -1 | 17 | | | | <input type="checkbox"/> |
| 3 | 054 556 333 | 1 | 1831 | 0 | 47 | | | | <input type="checkbox"/> |
| 4 | 054 556 276 | 3 | 1846 | 0 | 20 | | FAST FALL | | <input type="checkbox"/> |
| 5 | 054 626 047 | 4 | 1849 | 0 | 16 | | | | <input type="checkbox"/> |
| 6 | 060 226 330 | 1 | 1903 | .2 | 1.2 | | | | <input type="checkbox"/> |
| 7 | 054 626 251 | 3 | 1913 | .1 | 10 | | | | <input type="checkbox"/> |
| 8 | 054 556 475 | 1 | 1931 | 0 | 3 | | | | <input type="checkbox"/> |
| 9 | 054 626 265 | 3 | 1952 | 0 | 13 | | | | <input type="checkbox"/> |
| 10 | 061 229 061 | 1 | 2011 | .3 | 6 | | | | <input type="checkbox"/> |
| 11 | 060 226 484 | 3 | 2030 | 0 | 7 | | | | <input type="checkbox"/> |
| 12 | 061 229 060 | 1 | 2044 | 0 | 40 | | NO WINDS/GPS | | <input type="checkbox"/> |
| 13 | 061 329 229 | 3 | 2100 | .4 | 5 | | (MSS) | | <input type="checkbox"/> |
| 14 | 054 556 470 | 1 | 2117 | 0 | 3 | | | | <input type="checkbox"/> |
| 15 | 054 556 281 | 3 | 2128 | 0 | 40 | | | | <input type="checkbox"/> |
| 16 | 060 226 478 | 4 | 2138 | 0 | 7 | | | | <input type="checkbox"/> |
| 17 | 061 229 049 | 1 | 2149 | .2 | 6 | | | | <input type="checkbox"/> |
| 18 | 054 626 158 | 3 | 2158 | 0 | 4 | | | | <input type="checkbox"/> |
| 19 | 060 226 499 | 1 | 2209 | 0 | 5 | | | | <input type="checkbox"/> |
| 20 | 061 319 101 | 4 | 2220 | -.2 | 4 | | | | <input type="checkbox"/> |
| 21 | 054 556 380 | 1 | 2231 | 0 | 8 | | NO PTU | | <input type="checkbox"/> |
| 22 | 054 556 471 | 3 | 2234 | .2 | 3 | | | | <input type="checkbox"/> |
| 23 | 054 556 473 | 4 | 2242 | 0 | 8 | | | | <input type="checkbox"/> |
| 24 | 054 556 508 | 1 | 2253 | .2 | 5 | | | | <input type="checkbox"/> |
| 25 | 054 626 266 | 3 | 2305 | .2 | 4 | | | | <input type="checkbox"/> |
| 26 | 054 556 503 | 1 | 2315 | 0 | 8 | | | | <input type="checkbox"/> |
| 27 | 060 226 505 | 3 | 2323 | .2 | 7 | | | | <input type="checkbox"/> |
| 28 | 054 556 474 | 1 | 2344 | 0 | 7 | | | | <input type="checkbox"/> |
| 29 | 054 626 080 | 3 | 2358 | 0 | 9 | | | | <input type="checkbox"/> |
| 30 | 054 626 223 | 1 | 2349 | 0 | 12 | | | | <input type="checkbox"/> |
| 31 | 054 626 231 | 3 | 2548 | .3 | 15 | | | | <input type="checkbox"/> |
| 32 | 054 626 044 | 1 | 3423 | -.4 | 6 | | | | <input type="checkbox"/> |
| 33 | 054 626 104 | 4 | 4445 | 0 | 12 | GD | | | <input type="checkbox"/> |

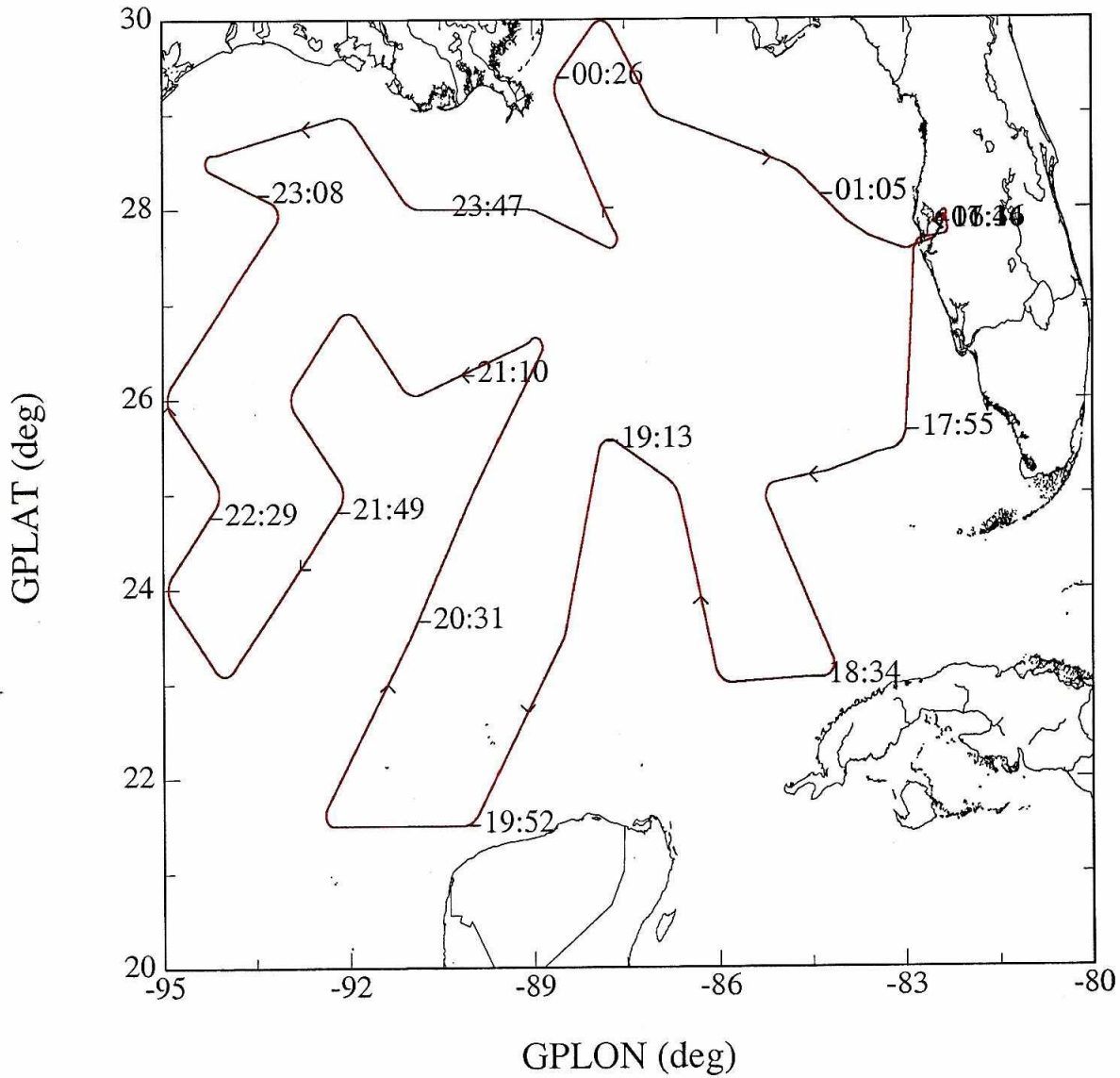
\$ Codes A=AOC N=NHC/NWS H=HRD OW=NESDIS

34 054 626 241 1 88570 12

change all to NHC

Hurricane 2007 Dist. Gulf of Mexico

09/20/2007, 16:36:52-25:44:45



| | mean | sigma | min | max |
|------------------------|--------|-------|--------|--------|
| — GPLAT (deg), 1 s/sec | 26.07 | 2.21 | 21.50 | 29.98 |
| — GPLON (deg), 1 s/sec | -88.31 | 4.08 | -94.92 | -82.32 |

