

31/8 = 6/10 = 4

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

|                     |                                 |                          |
|---------------------|---------------------------------|--------------------------|
| Flt ID: 040911N-B   | From: KmCF                      | To: KmCF                 |
| Flt. No: 04-107     | Blk In: 0150 z                  | Time On: 0142 z          |
| ETD: 1730 z         | Blk Out: 1714 z                 | Time Off: 1723 z         |
| ETE: 8+30           | Blk Time: 8+36 (8.6) Hrs        | Flt Time: 8+19 (8.3) Hrs |
| Sponsoring Org: NHC | Program: Hurricane Surveillance | Purpose: IVAN            |

**AOC Flight Crew**

|                               |                       |
|-------------------------------|-----------------------|
| Aircraft Commander: Finke, m  | Data System: Roles, J |
| Co-Pilot: Hagen, J, Poston, R | AVAPS: Goldstein, A   |
| Navigator: /                  | System Eng:           |
| Flight Eng: /                 | A A:                  |
| Flight Director: Mayeaux, m   | A A:                  |
| Avionics: Carpenter, D        | Crew Chief:           |

**Participating Scientists / Visitors**

| Name (Last, First) | Activity on Aircraft | Affiliation |
|--------------------|----------------------|-------------|
| Landsa, C          | Heps                 | HRO         |
|                    |                      |             |
|                    |                      |             |
|                    |                      |             |
|                    |                      |             |
|                    |                      |             |
|                    |                      |             |
|                    |                      |             |
|                    |                      |             |

**Remarks (Storm Name, Mission ID, Recco Times, Fix Times)**

|                                    |                                       |                    |                              |
|------------------------------------|---------------------------------------|--------------------|------------------------------|
| <u>Storm Name:</u>                 | 00E - NOAA 2109A IVAN 28drops         | <u>Recco Times</u> | <u>Fix #</u> <u>Fix Time</u> |
| <u>Mission ID:</u>                 | 18-00E - Teal 54 Sfc-10000 ft Bix/Bix |                    | 1900Z 1806' A11              |
| <u>Penetration number and time</u> |                                       |                    | Teal 54<br>A F<br>18.2 79.3  |

2217 1808 77929

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

Flight ID: **040911N-B**      Time Off: **1723**      Z      Time On: **0142**      Z

|          |                   |                       |                  |                       |
|----------|-------------------|-----------------------|------------------|-----------------------|
|          | A/C - Takeoff     | Wx Station - Takeoff  | A/C - Land       | Wx Station - Land     |
| Pressure | <b>1015.75</b> mb | <b>3005 1017.6</b> mb | <b>1014.7</b> mb | <b>2996 1014.6</b> mb |

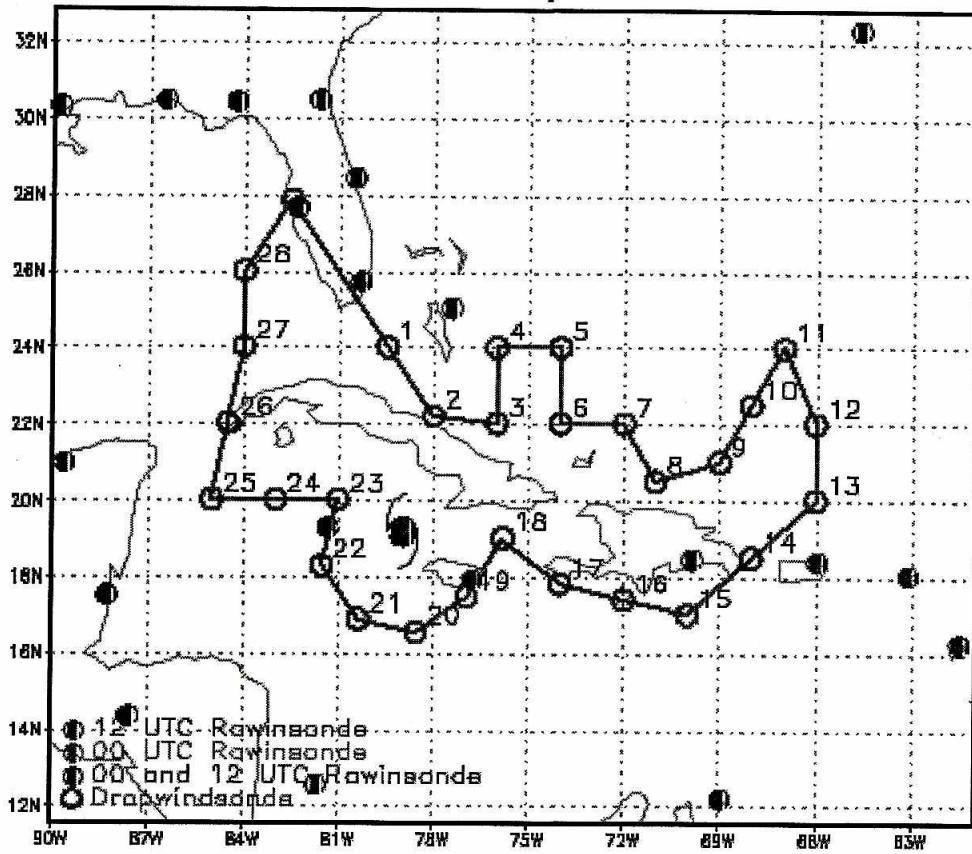
| ATIS    | Time         | Observation  |
|---------|--------------|--|
| Takeoff | <b>1455Z</b> | <b>10009KT-75m FFW020 Sc1250 29/23 #3005 08010KT</b> |
| Land    | <b>0138Z</b> | <b>07010KT A2996</b>                                 |

|                           | Number    | Data Disposition / Date / Quality |
|---------------------------|-----------|-----------------------------------|
| Flight Level Tapes        |           |                                   |
| Radar Tapes               |           |                                   |
| Cloud Physics Tapes / CDs |           |                                   |
| Video Tapes               |           |                                   |
| Dropsondes                | <b>29</b> | <b>Good: 28 Bad: 1</b>            |
| AXBT                      |           |                                   |
| AXCP                      |           |                                   |
| AXCTD                     |           |                                   |

**Remarks:**  
 Call Gordon last drop      Op2 went Bad at 0129 ~~to~~ very close to landing  
 813-833-3254  
 At 0119Z - DBP1 + DBP2 spike downward on ascent and SSRD1+2  
 OP2C + OP2C spike at 2301 and 2316 Z in precip due to heater element overcompensation



### 040911N2 12/00Z IVAN



GRADS: COLA/IGES

2004-08-10-12:31

HURRICANE SYNOPTIC SURVEILLANCE MISSION PLAN: IVAN

Prepared by the Hurricane Research Division File: current1.ftk

Aircraft: N49RF Altitude: FL410-450 Proposed takeoff: 11/1730Z

DROP LOCATIONS

4

| #             | LAT<br>(d m) | LON<br>(d m) | RAD/AZM<br>(nm/dg) | TIME<br>(h:mm) |
|---------------|--------------|--------------|--------------------|----------------|
| <del>1</del>  | 24 00        | 79 30        |                    | 0:48           |
| <del>2</del>  | 22 12        | 78 00        |                    | 1:07           |
| <del>3</del>  | 22 00        | 76 00        |                    | 1:22           |
| <del>4</del>  | 24 00        | 76 00        |                    | 1:38           |
| <del>5</del>  | 24 00        | 74 00        |                    | 1:53           |
| <del>6</del>  | 22 00        | 74 00        |                    | 2:10           |
| <del>7</del>  | 22 00        | 72 00        |                    | 2:25           |
| <del>8</del>  | 20 30        | 71 00        |                    | 2:39           |
| <del>9</del>  | 21 00        | 69 00        |                    | 2:55           |
| <del>10</del> | 22 30        | 68 00        |                    | 3:09           |
| <del>11</del> | 24 00        | 67 00        |                    | 3:24           |
| <del>12</del> | 22 00        | 66 00        |                    | 3:42           |
| <del>13</del> | 20 00        | 66 00        |                    | 3:58           |
| <del>14</del> | 18 30        | 68 00        |                    | 4:18           |
| <del>15</del> | 17 00        | 70 00        |                    | 4:38           |
| <del>16</del> | 17 24        | 72 00        |                    | 4:53           |
| <del>17</del> | 17 48        | 74 00        |                    | 5:09           |
| <del>18</del> | 19 00        | 75 48        |                    | 5:26           |
| <del>19</del> | 17 28        | 76 56        |                    | 5:42           |
| <del>20</del> | 16 32        | 78 32        |                    | 5:56           |
| <del>21</del> | 16 52        | 80 21        |                    | 6:11           |
| <del>22</del> | 18 17        | 81 32        |                    | 6:26           |
| <del>23</del> | 20 00        | 81 00        |                    | 6:40           |
| <del>24</del> | 20 00        | 83 00        |                    | 6:55           |
| <del>25</del> | 20 00        | 85 00        |                    | 7:11           |
| <del>26</del> | 22 00        | 84 30        |                    | 7:28           |
| <del>27</del> | 24 00        | 84 00        |                    | 7:44           |
| 28            | 26 00        | 84 00        |                    | 8:01           |

21.5 22.5  
-77.5 -78.5

800 0000Z (18.5) (79.8) Forecast  
830 0030Z 90 miles Away

1810 79.43

1736 -79.10

-over land or near

16.6 -79.1 281 90 miles/60 right

90 right (85 miles) 16.75 -79.7 282

90 right (95 miles) 17.2 -80.6 325

9

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 HURRICANE SYNOPTIC SURVEILLANCE MISSION PLAN: IVAN

Prepared by the Hurricane Research Division File: current1.ftk

Aircraft: N49RF      Altitude: FL410-450      Proposed takeoff: 11/1730Z  
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## TRACK DISTANCE TABLE

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| #  | LAT<br>(d m) | LON<br>(d/m) | RAD/AZM<br>(nm/dg) | LEG<br>(nm) | TOTAL<br>(nm) | TIME<br>(h:mm) |
|----|--------------|--------------|--------------------|-------------|---------------|----------------|
| 0  | MACDILL      |              |                    | 0.          | 0.            | 0:00           |
| 1  | 24 00        | 79 30        |                    | 283.        | 283.          | 0:48           |
| 2  | 22 12        | 78 00        |                    | 136.        | 419.          | 1:07           |
| 3  | 22 00        | 76 00        |                    | 112.        | 532.          | 1:22           |
| 4  | 24 00        | 76 00        |                    | 120.        | 652.          | 1:38           |
| 5  | 24 00        | 74 00        |                    | 110.        | 762.          | 1:53           |
| 6  | 22 00        | 74 00        |                    | 120.        | 882.          | 2:10           |
| 7  | 22 00        | 72 00        |                    | 111.        | 993.          | 2:25           |
| 8  | 20 30        | 71 00        |                    | 106.        | 1099.         | 2:39           |
| 9  | 21 00        | 69 00        |                    | 116.        | 1216.         | 2:55           |
| 10 | 24 00        | 67 00        |                    | 212.        | 1428.         | 3:24           |
| 11 | 22 00        | 66 00        |                    | 132.        | 1560.         | 3:42           |
| 12 | 20 00        | 66 00        |                    | 120.        | 1680.         | 3:58           |
| 13 | 17 00        | 70 00        |                    | 291.        | 1971.         | 4:38           |
| 14 | 17 48        | 74 00        |                    | 234.        | 2205.         | 5:09           |
| 15 | 19 00        | 75 48        |                    | 125.        | 2331.         | 5:26           |
| 16 | 17 28        | 76 56        |                    | 113.        | 2443.         | 5:42           |
| 17 | 16 32        | 78 32        |                    | 107.        | 2551.         | 5:56           |
| 18 | 16 52        | 80 21        |                    | 106.        | 2657.         | 6:11           |
| 19 | 18 17        | 81 32        |                    | 109.        | 2766.         | 6:26           |
| 20 | 20 00        | 81 00        |                    | 108.        | 2874.         | 6:40           |
| 21 | 20 00        | 85 00        |                    | 226.        | 3100.         | 7:11           |
| 22 | 24 00        | 84 00        |                    | 247.        | 3347.         | 7:44           |
| 23 | 26 00        | 84 00        |                    | 120.        | 3467.         | 8:01           |
| 24 | MACDILL      |              |                    | 137.        | 3604.         | 8:29           |

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# NOAA G-IV N49RF Hurricane Ivan Mission 4 Surveillance Flight

**Flight ID: N040911**

| <u>Sensor or System</u>                 | <u>Number or Name</u> |
|---|-----------------------|
| INE (for wind derivation)               | VEW_PITR VNS_PITR     |
| Attack Angle                            | AKRD2                 |
| Slip Angle                              | SSRD2                 |
| Accelerometer                           | ACINS_PITR            |
| Temperature Probe                       | AT3                   |
| Dew Point Probe                         | DPRC                  |
| Altitude (for vertical wind derivation) | PALT                  |
| Static Pressure                         | PS2C                  |
| Dynamic Pressure                        | QC2C                  |
| True Air Speed                          | TAS2                  |
| Constants File                          | 49cal041              |
| Project Directory                       | 406                   |

Notes:

There were no time/data glitches during this flight.

At 0129Z, upon initial descent, DPL became inoperative. Therefore, DPR and DPRC will be used in place of DPX and DPXC.

At 0119Z, DBP1 and DBP2 along with SSRD1 and SSRD2 spiked upon initial descent.

Two spikes in DPRC and DPLC occurred at 2301Z and 2316Z. This occurred in a precipitation event where the heating elements in the instrument likely overcompensated. These values are greater than ambient temperature resulting in relative humidity values greater than 100%.

Otherwise, all instruments performed optimally during this mission.

Flight Director: Martin Mayeaux (813) 828-3310 x 3086